

# ARTICLE Q. HILLSIDE DEVELOPMENT OVERLAY ZONE

## 10-7Q-1: PURPOSE:

The purpose of the hillside development zone is to establish standards for development in environmentally sensitive or geologically hazardous areas associated with foothill or steep terrain areas within the city. Additional goals in establishing this zone are as follows:

- A. Promote sustainable design criteria for new developments which address long term impacts of development in sensitive areas.
- B. Provide flexible development options where a standard lot pattern is not practical or desirable due to natural topographic constraints or conditions caused by mass grading or excavation activities on a site.
- C. Provide for the preservation of wildlife corridors, and natural drainage channels or systems and use of measures to protect future property owners from geologic and fire hazards as development occurs in sensitive areas.
- D. Provide for the reestablishment of vegetation and reclamation of barren areas caused by mass grading or excavation activities caused by development in sensitive areas.

It is also the intent of this article that the hillside zone be an overlay zone with densities and land uses being established by underlying zoning. It is also intended that any developer demonstrate by the applications submitted for approval that the objectives and goals of the general plan, the underlying zone and this section will be fostered. (Ord. 09-05-2011, 9-21-2011, eff. 9-22-2011)

## 10-7Q-2: DEVELOPMENT WITHIN THE HILLSIDE ZONE:

Any parcel which is included wholly or partially within the hillside overlay zone shall be subject to the standards outlined in this section. Development agreements shall be established with the city prior to preliminary approvals being given for new developments in this zone. Such agreements must be based on concept plans reviewed by city staff, the planning commission and approved by the city council. Developments will only be permitted upon demonstration of ability to comply with

the standards of the hillside overlay zone and development agreement requirements. (Ord. 09-05-2011, 9-21-2011, eff. 9-22-2011)

### **10-7Q-3: TERMS AND DEFINITIONS:**

As used in this chapter, the following terms and associated definitions shall be applicable:

**AVERAGE SLOPE:** Average slope of a parcel is determined by the following formula:

$$S = (100)(I)(L)/(A)$$

Where:

S is the average slope of the parcel, in percent

I is the contour interval, in feet (not to exceed 2 feet)

L is the total length of all the contour lines in the parcel, in feet

A is the area of the parcel, in square feet

**SENSITIVE AREA:** Sensitive areas shall be considered those areas which are prone to geologic hazards, within state identified potential surface fault rupture zones, exceed thirty percent (30%) slopes, are designated wetlands, watershed or water source protection areas, areas of historical significance, or as may otherwise be determined to be necessarily protected by official action of the city, county, state or a federal agency.

**THIRTY PERCENT SLOPE:** In order to be considered a legitimate thirty percent (30%) slope, one of the two (2) following criteria must be met:

- A. Height Criteria: There must be a vertical rise (measured perpendicular to the contours) within the thirty percent (30%) slope area of at least ten feet (10').
- B. Area Criteria: There must be a contiguous thirty percent (30%) slope area (including all contiguous areas of 30 percent slope, irregular as the boundary may be) of at least two thousand (2,000) square feet, and the vertical rise of the area must be at least six feet (6') (measured perpendicular to the contours). (Ord. 09-05-2011, 9-21-2011, eff. 9-22-2011)

### **10-7Q-4: PERMITTED USES:**

Land uses allowed within the hillside development zone are listed in the respective underlying

zones. Permitted nonresidential uses must be reviewed under the city's development review process and applicable development standards. (Ord. 09-05-2011, 9-21-2011, eff. 9-22-2011)

## **10-7Q-5: OPEN SPACE AND LANDSCAPING REQUIREMENTS:**

- A. Recreation Open Space: Each development within this zone is required to contain at least ten percent (10%) of the net developable acreage of the development in permanent recreation open space. The ten percent (10%) acreage must meet the following guidelines:
1. Such acreage must be nonencumbered except for utility easements or public uses.
  2. Sensitive areas may be considered toward the ten percent (10%) requirement if utilized for city approved public trails or park systems.
  3. Recreation open space must be improved by the developer. Improvements may include recreation activity areas, picnic pavilions, gazebos, water features, playgrounds, or privately maintained landscape areas or other elements as stipulated in an approved development agreement for the project.
  4. Recreation open space should be designated where bands of open space and contiguous recreation areas can be developed or expanded as abutting properties develop.
  5. Where a development will be constructed in phases, the amount of improved and dedicated recreation open space must always meet or exceed the required recreation open space minimum ratio for the entire development (e.g., if a development is required to have a total of 10 percent open space, then each phase of the development must include open space equal to at least 10 percent or more of the phase until the total required open space and improvements is provided).
  6. A maximum of fifty percent (50%) of the recreation open space may be utilized for storm drain detention or retention unless it is determined by the city that following this standard will significantly reduce the functionality and recreation potential of the property.
  7. Parking areas constructed solely for dedicated recreation areas may count toward the ten percent (10%) requirement.
  8. Where developments in this zone abut, include, or encompass trails, parks, or other public facilities outlined within the city's general plan or parks and recreation capital facilities plan, such amenities are to be provided and constructed by the developer. Any associated lands for these facilities will be counted toward the ten percent (10%) recreation open space requirement. Costs for installation of these facilities may be reimbursed to the developer in accordance with capital facilities plan schedules.
- B. Required Development Landscaping: Where applicable, the following landscape plans are required. Such must be reviewed and approved by the city's development review committee and bonded for with developments in this zone. All plans required in this section shall be

prepared by a landscape architect or engineer registered in the state of Utah. All plans shall be designed at a scale of one inch equals sixty feet (1" = 60') or larger.

1. Reclamation Plan: A reclamation plan shall be provided for any areas to be disturbed by development activities. This plan shall address remediation of any environmental contamination caused by the development, final grading and contouring of the site, slope stabilization around roads and lots, surface water diversions and impoundments, the provision of topsoil and subsoil where needed, and revegetation.
2. Common Area Landscape Plan: A landscape plan shall be provided for those portions of a development which will remain as common area. Such plan should incorporate pathways, gathering areas, common greens, year round aesthetics, shade trees, gardens, etc. A minimum of thirty five percent (35%) of the nonstructurally covered common areas should be shaded at vegetation maturity.
3. Landscaping Of Residential Lots:
  - a. Residential lots must have completely landscaped front yards and visible side yards prior to receiving a certificate of occupancy for a dwelling on such lot, where such yard areas are visible from a public or private street. Rear yards must meet fire department standards if not landscaped before occupancy.
  - b. Landscaping around homes need not be designed by a landscape architect or engineer, but shall meet guidelines for firewise protection and be approved by the city's fire department prior to occupancy of the home.
  - c. Any grading work associated with landscaping around the home must comply with section [10-7Q-8](#) of this article.
4. Nonresidential, Mixed Use Or Multi-Family Developments: Landscape plans shall meet firewise guidelines, grading standards in section [10-7Q-8](#) of this article, and the city's landscaping standards as found in [chapter 15](#) of this title.

#### C. General Open Space And Landscaping Standards:

1. Preservation, maintenance, and/or ownership of required and amenity open spaces or sensitive areas shall be accomplished by one or more of the following methods:
  - a. Dedication of improved lands as a public park or parkway system if agreed to and accepted in writing by the city. However, the city shall be under no obligation to accept such dedication;
  - b. Establishment and operation of a condominium project in compliance with the provisions of the condominium ownership act of 1963, title 57, chapter 8, Utah Code Annotated, 1953, as amended, which provides for the payment of common expenses for the upkeep of the common areas and facilities;
  - c. Creation of a homeowners' association by which common areas shall be owned and maintained; or
  - d. If open spaces are to remain in a natural state, then such must be owned, managed,

administered, and maintained by Santaquin City, or a recognized land trust or conservancy, or any other entity or combination of entities, as approved by the city council and have conservation easements established to allow public access and enjoyment while preventing future development in such areas.

2. All open space areas must be accessible by emergency vehicles and personnel to protect and provide surveillance to improved properties and structures.
3. All required landscaping and maintenance systems pertinent to open space areas shall be installed prior to a certificate of occupancy being granted for any structures located on the property or within the phase in which the open space is located. Where landscaping can not be completed before October in the same year construction begins, a certificate of occupancy may be granted if a cash bond for completion of the landscaping is provided to Santaquin City. Bond amounts shall be determined by the city engineer consistent with the city development bonding regulations. Landscaping must be installed within six (6) months of bond posting weather permitting. (Ord. 09-05-2011, 9-21-2011, eff. 9-22-2011)

## **10-7Q-6: SENSITIVE AREA MITIGATION AND ANALYSIS:**

- A. Mitigation: Sensitive areas may not be developed unless all potential hazards are effectively mitigated and it is demonstrated by the developer that the health, safety, and welfare of current or future residents of the city or their property, including those not within the development boundaries, is protected. Demonstration by the developer must include, but not be limited to, conducting of applicable analysis under subsection B of this section, providing documentation to the city of financial resources and their integrity for construction of any recommended mitigation facilities, and provision of city acceptable guarantees for any analysis recommended mitigation facilities.
- B. Required Analysis: The following analysis shall be conducted prior to preliminary approvals being granted for any development covered under this zone. All costs of said studies shall be the sole responsibility of the applicant.
  1. Flood And Watershed Protection Study: A flood and watershed protection study shall be prepared by a professional engineer, licensed in the state of Utah and approved by the city. Said study shall include: a) data and analysis concerning the possibility of future flooding and/or soil erosion in the project area; b) data and analysis concerning the potential effects of the development of the project on adjacent areas with respect to future flooding and/or soil erosion; and c) recommendations for the mitigation of potential adverse effects of flooding and/or soil erosion on the project and adjacent properties.
  2. Geological Hazard Mitigation: A geological hazard assessment shall be conducted to identify and provide permanent mitigation for fault areas (including surface fault rupture hazards), rock falls, debris flow/alluvial fan hazards, slope stability, and any other hazards which may be associated with or impact a subject property. A firm or individual with expertise/competence in this type of hazard assessment and licensed in the state of Utah

must perform the work. The report must include, but not be limited to, a discussion of the geologic conditions, a description of the method of study including field investigation, alluvial fan investigation, estimates of debris volume and peak flow, hazard mitigation with a preferred mitigation recommendation, and any development or area limitations including recommended structure setbacks from hazard areas.

3. **Wildlife Habitat And Corridors:** Applicants shall submit each application for development to the Utah department of wildlife resources (DWR) for analysis of impacted wildlife and habitat areas. Development proposals must include mitigation strategies to address comments provided by the DWR.
  4. **Wildland-Urban Interface Areas:** Development proposals shall conduct an analysis of fire hazard due to proximity to natural open space areas. This study must be coordinated through the city, county, and federal lands fire officials. Recommendations from such study must address alteration of existing vegetation and/or topography and limitations on landscaping, home materials, structure spacing, fencing, and fire suppression techniques appropriate to the area.
- C. **Construction Of Protection Facilities:** All recommendations from the studies required under this section must be followed and the resulting protection measures bonded for and constructed with a proposed development. Prior to the issuance of a building permit within a development, all required protection facilities must be constructed by the applicant and inspected by the city engineer and the person or entity which recommended the facility be built. Such construction and inspection costs, including any necessary acquisition of property, rights of way and/or easements, shall be the sole responsibility of the applicant.
- D. **Notification Of Potential Hazards:** All items identified as potential hazards or sensitive areas through the above studies must be noted and illustrated on final development plans and plats. This shall include delineation of applicable areas of nondisturbance on parcels to be platted. (Ord. 09-05-2011, 9-21-2011, eff. 9-22-2011)

## **10-7Q-7: LOT STANDARDS:**

- A. **Lot Area Requirements:** Minimum lot area requirements shall be as outlined in the underlying zone.
- B. **Frontage Requirements:** Minimum frontage requirements shall be as outlined in the underlying zone with the following exceptions:
  1. Lots with frontage along a cul-de-sac bulb may have thirty feet (30') of frontage as measured along the front property line.

2. Flag lots may be approved in accordance with section [10-10-5](#) of this title and only when it is demonstrated that allowance of such lots will serve to reduce the overall impacts of a development on sensitive areas or the surrounding area.

C. Setback Requirements: The setback requirements shall be as outlined in the underlying zone.

D. Sensitive Areas: Sensitive areas may be included with individual parcels in a development under the following guidelines:

1. Parcels with less than twelve thousand (12,000) square feet may not include sensitive areas.
2. Single-family lots with an average slope greater than fifteen percent (15%) must have a minimum buildable area of eight thousand (8,000) contiguous, nonsensitive, square feet.
3. Sensitive areas may not exceed fifty percent (50%) of individual lots for uses other than detached single-family dwellings.
4. Where a parcel includes sensitive areas, the buildable areas of the lot shall be delineated on final plats with the exclusion of sensitive areas and required setbacks.

E. Shared Driveways: Shared drives or private lanes are allowed where adequate easements and maintenance agreements will be recorded to assure long term maintenance of the shared access. Shared driveway access from the street may not exceed twenty four feet (24') in width. (Ord. 09-05-2011, 9-21-2011, eff. 9-22-2011)

## **10-7Q-8: CUTS AND FILLS:**

The following standards shall be met when designing street layouts, subdivision improvements, presale lot grading and home construction plans:

- A. Slopes: Slopes caused by either an excavation or fill shall not be steeper than one vertical to two horizontal (1:2). Slopes shall not be steeper than one vertical to four horizontal (1:4) within fifteen feet (15') of abutting dwelling lot property lines unless a developer provided retaining wall is installed consistent with the retaining wall standards outlined below.
- B. Permanent Fill: Permanent fill shall be located so that settlement or erosion shall not damage or cover any street, curb, gutter, sidewalk, or building.

- C. Standards: All fill and degrees of compaction shall comply with the standards established by the city engineer in accordance with applicable codes and standards adopted by the city.
- D. Water Diversion: Water diversion systems shall be installed to channel water runoff away from cut or fill slopes and retaining walls. Protection of such systems is to be noted on any development plats.
- E. Slope Edges: The top or bottom edges of slopes caused by an excavation or fill up to ten (10) vertical feet shall be at one vertical to three (3) horizontal feet for a distance of six feet (6') from the property line and/or street right of way lines. Cut and/or fills greater than ten (10) vertical feet shall be set back an appropriate distance as determined by the city engineer.
- F. Vertical Height: The maximum vertical height of any nonretained cut or fill slope exceeding one vertical to three horizontal (1:3) shall be ten feet (10').
- G. Setback: Any structure, except a retaining wall or soil stabilization improvement, shall have a setback from the crest/base of a cut or fill a minimum distance equal to the depth of the fill or the height of the cut, unless an engineered retaining wall is built for the cut or fill slope. Retaining walls may be a part of a dwelling unit.
- H. Nonretained Slope: The distance from any structure to the toe of a natural or development caused nonretained slope shall be at least the height of the slope divided by two ( $H/2$ ), up to fifteen feet (15').
- I. Retaining Walls:
1. Required: Retaining walls shall be required in any area of disturbance where the grade exceeds a 2.5:1 slope.
  2. Design; Approval: Any retaining wall that is four feet (4') in height or taller shall be designed by a licensed engineer and approved by the city building official in accordance with applicable codes adopted by the city.
  3. Wall Heights: Retaining wall heights shall be measured from the bottom of the foundation of the wall to the top of the wall vertically above the bottom point of measurement. No retaining wall shall exceed ten feet (10') in height.
  4. Separation: Retaining walls shall have a minimum horizontal separation equal to the height of the nearest uphill retaining wall.
  5. Consistency: Retaining walls within this overlay area shall be consistent in design and



materials across property lines (e.g., no rock walls abutting masonry unit walls).

#### 6. Retaining Walls Along Property Lines:

- a. Retaining walls may be constructed along property lines up to a maximum height of eight feet (8').
- b. The developer shall be responsible for the installation of retaining walls along residential property lines prior to sale of lots within the development. Where such retaining walls are to be installed, the costs of such shall be included in the bonds for the development.
- c. After the sale of a lot, no new retaining walls shall be located within five (5) horizontal feet of rear property lines or property lines trending perpendicular to affected slopes unless:
  - (1) Adjoining property owners have entered into a written agreement and prepared a joint submittal for construction of the retaining wall, and
  - (2) A six foot (6') tall fence is installed on top of any retaining wall exceeding six feet (6') in height along the property line, and
  - (3) An irrigation and landscaping plan is submitted to show how water will be handled around the top of the retaining wall.

7. Approval Required: Retaining walls constructed as a requirement to the presale of a property within the hillside overlay zone may not be altered, expanded, or built upon without prior city engineer and building official approvals.

J. Single-Family Home Construction: All lots having average slopes of fifteen percent (15%) or greater within the hillside overlay zone are required to complete and submit a lot grading and drainage plan ("the plan") with any application for a building permit. Each lot grading and drainage plan must include the following information:

1. Date, north arrow, and scale on the plan (1 inch = 50 feet or larger).
2. Name, address, and professional seal of engineer or surveyor responsible for preparation of the plan.
3. Name and address of property owner and builder.
4. Address and recorded lot number.
5. All property lines with bearings and distances.
6. All required building setbacks and easements according to final subdivision plat.
7. Existing grade contours for the entire lot and a fifty foot (50') surrounding area at a maximum interval of two feet (2').
8. Location of all existing structures, natural features, drainage courses and all existing grades exceeding twenty percent (20%).
9. Location, dimensions, and spot elevations of all existing and proposed structures and

improvements on the lot including driveways, sidewalks, patios, and retaining walls.

10. All retaining walls must be identified by height and material and comply with the standards outlined under subsection I of this section. All backfilled areas must be retained.
11. Identify finished floor(s) elevation, finished grade elevations adjacent to structure, garage floor elevation, and finished grade at all lot corners.
12. Finish grade contours at a maximum interval of two feet (2'), which demonstrate the following:
  - a. Ability to maintain a minimum two percent (2%) slope away from any structure for a minimum distance of ten feet (10').
  - b. Slope of driveway not to exceed twelve percent (12%).
  - c. Drainage pattern for final lot grading.
  - d. No finish slope shall exceed fifty percent (50%).
13. Stormwater and management details including size and location of roof drains and adequate detail to demonstrate no drainage discharge to adjacent lots.
14. Demonstration that the proposed grading and drainage plan meets the requirements of the IRC as adopted by Santaquin City.
15. Erosion control details demonstrating ability to control erosion on slopes greater than four horizontal to one vertical (4:1) (25 percent). These controls may include landscaping, retaining walls, terracing, drainage soils, catchment areas, or other reasonable methods. Prior to excavation, silt fencing must be installed along all property lines trending perpendicular to a down slope. The silt fencing must remain in place until all rough grading around the structure and construction of retaining walls are completed. (Ord. 09-05-2011, 9-21-2011, eff. 9-22-2011)

## **10-7Q-9: STREETS, ROADWAYS, AND PRIVATE ACCESS:**

Streets, roadways, and private accessways shall follow as nearly as possible the natural terrain. The following additional standards shall apply:

- A. Points of access shall be provided to all developed and undeveloped areas for emergency and firefighting equipment. Any driveway located upon a lot extending from a public street shall have at any point a maximum grade of fifteen percent (15%) as measured along the centerline of the driveway, and a minimum width of twenty feet (20'), and shall be of a sufficient width and design to admit and accommodate firefighting equipment.

- B. Maximum cul-de-sac lengths shall be one thousand feet (1,000') as measured from adjacent road to beginning of bulb. An intermediate turnaround, compliant with city adopted fire codes, must be installed mid length if the cul-de-sac exceeds seven hundred fifty feet (750').
- C. Variations of street design standards developed to solve special hillside visual and functional problems may be presented to the city council for consideration. Examples of such variations may be the use of split roadways to avoid deep cuts, modifications of surface drainage treatments, or sidewalk design/elimination.
- D. Any road or right of way for vehicular access dedicated for public use shall be subject to the following limitations:
1. The maximum grade of such road or rights of way shall be twelve percent (12%) except as provided in subsection [10-7Q-8J12b](#) of this article. Roads with a centerline aspect within eighty degrees (80°) of north shall not exceed ten percent (10%).
  2. The city council, after receiving a recommendation from the planning commission and development review committee, may grant approval for the construction of a straight section of road or right of way having a grade exceeding twelve percent (12%), but the grade of such streets shall not, in any event, exceed fifteen percent (15%) or three hundred feet (300').
  3. Intersections shall be designed to accommodate public safety and snow removal movements into and out of the intersection. (Ord. 09-05-2011, 9-21-2011, eff. 9-22-2011)

## **10-7Q-10: RELATIONSHIP TO OTHER DEVELOPMENT ORDINANCES:**

This article is intended to be supplementary to the other provisions of this title. Unless specifically indicated in this article, all requirements of this title and any other development ordinances or standards of Santaquin City must be satisfied. (Ord. 09-05-2011, 9-21-2011, eff. 9-22-2011)