

**HILLSIDE MANAGEMENT PROGRAM**

**CITY OF SAN BUENAVENTURA**

Adopted by the City Council  
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P.O. Box 99  
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# HILLSIDE MANAGEMENT PROGRAM

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## HILLSIDE MANAGEMENT PROGRAM

### INTRODUCTION

The Hillside Management Program consists of policies, development criteria and submittal requirements established by the City to implement the Comprehensive Plan as it relates to Hillside Areas. The overall objective is to relate the number and distribution of dwelling units in future hillside development to the topographical, geological, and hydrological conditions of the hillsides, so that the terrain will retain its natural and scenic character, and the danger to life and property by the hazards of fire, flood, water pollution, soil erosion, and land slippage will be minimized. Major objectives and policies are noted in the Resources, Land Use, Safety, and Park and Recreation Elements of the Comprehensive Plan. Other more specific policies for each of the hillside communities are also contained in the Community Intent and Rationale Statements in the Land Use Element of the Comprehensive Plan.

It is intended that the Comprehensive Plan and this Program supersede all other City plans, policies, and regulations for the Hillside Area. In addition, existing City plans and ordinances relating to zoning, grading, landscaping, geologic reports, fire protection regulations and other related matters should be reviewed for conformance with the policies of the Comprehensive Plan and this Program and, if different, be brought into conformance as soon as possible.

Incorporated, vacant and underdeveloped parcels which are designated HPR, and which have zoning designations that do not conform with the Comprehensive Plan, will not be allowed to develop until the zoning is made to conform. In order to meet the intent of the Comprehensive Plan, all incorporated hillside properties designated HPR should be given an RPD zone designation with a density consistent with this Program, and with the

understanding that the actual number of permitted dwelling units on any parcel will be based on the appropriate slope/density formula.

## **I. DEFINITION**

The Hillside Area Boundary is shown on the Comprehensive Plan Land Use Plan Map. Generally, the Hillside Area is that area within the City's Planning Area located easterly of Cedar Street (or its proposed extension) and northerly of Poli Street and Foothill Road. The Planning Area boundaries form the northern and eastern boundaries of the Hillside Area. Urban uses within the Hillside Area include the Hillside Planned Residential (HPR) and Existing Urban Comprehensive Plan land use designations. Applicability of the Hillside Management Program differs within these areas and with the type of discretionary action being sought. Section III of this Program details the applicable submittal requirements.

## II. OBJECTIVES AND POLICIES

In addition to the objectives and policies contained in the Comprehensive Plan, the following are the objectives and policies of this Program:

### 1. **DEVELOPMENT/TIMING**

#### Objectives

- A. To encourage additional residential development in Ventura's hillsides, as a part of the City's Comprehensive Plan for overall community development.
- B. To direct hillside development to areas where it will have the least impact on the City's existing urban service systems, while postponing development of areas which would require major expansion of existing systems, both in the hillside and flatland areas.
- C. To direct hillside development to areas which are least susceptible to geologic and other environmental hazards, as well as fire hazards, while postponing development in those areas which are more prone to such hazards.
- D. To direct hillside development to areas where it will have the least impact on the natural environment of the Hillside Area, including such factors as scenic resources, water resources, and unique habitats.

#### Policies

- 1. All of the Hillside Area may be considered for development, subject to the Comprehensive Plan and this Program.

2. The City will not annex or provide urban services (i.e., domestic water and sewers) to any new development within the Hillside Area until the new development has received discretionary permits.
3. The City encourages the County to zone unincorporated parcels in the Hillside Area to a restrictive open space zone (permitting a maximum of 1 dwelling unit per 40 acres) or similar zone which minimizes urban development possibilities.
4. The City will support qualified property owners who request to enter into County Land Conservation Act contracts or similar measures which will preserve the views and wildlife habitats, oak woodlands and general undeveloped characteristics of the Hillside Area.

## 2. LAND USE

### Objectives

- A. To relate the number and distribution of dwelling units in future hillside developments to topographic, geologic, hydrologic, and fire hazard conditions, in order to minimize dangers to life and property.
- B. To protect the natural and scenic resources of the Hillside Area in conjunction with future hillside development.
- C. To provide a variety of housing opportunities in the Hillside Area.
- D. To preserve the residential nature and character of established hillside neighborhoods.

- E. To ensure that public access to the Hillside Area is not unduly restricted by future development.

## Policies

1. Hillside Planned Residential Categories

All future development in the areas designated HPR by the Comprehensive Plan should be developed at residential densities not to exceed those allowed by the net density suffix of the appropriate HPR designation (e.g., HPR-4, HPR-6, HPR-8, HPR-15, HPR-20). See the Land Use Element of the Comprehensive Plan for further definition of the HPR categories.

2. Cluster Development

Cluster development is encouraged as a means of preserving the natural appearance of the hillside, and maximizing the amount of usable open space. Under this concept, dwelling units are grouped on the more level portions of the site, while steeper areas are preserved in a natural state.

Cluster development projects are permitted in all HPR designated areas, provided that:

- a) In cluster developments containing attached dwelling units, the design of the project must include level open space areas (less than 5% slope) for recreational use, in addition to areas kept in their natural state.
- b) The project is designed to minimize the visual impact on adjoining residential areas.

Density allocations under the HPR-4 and HPR-6 designations may be transferred from steeper slope areas (i.e., greater than 30% slope) to less steep slope areas.

3. Fire Zone Regulations

All areas preserved in a natural state will be subject to applicable fire regulations (i.e., "Fire Zone 4" regulations) to ensure that natural vegetation does not pose a fire threat to nearby structures.

4. Neighborhood Convenience Stores

Neighborhood convenience stores, defined as "a small retail outlet selling food and sundries" may be permitted in "Hillside Planned Residential" areas, provided there is no existing or proposed commercial center within one-half mile radius of the site. A Conditional Use Permit must be obtained for this use. The Architectural Review Board, when reviewing such projects, should give special consideration to signs, landscaping, lighting, colors, and construction materials, to ensure that the project is compatible with the character of the hillside community. This use will not be permitted within 100 feet of Foothill Road.

5. Hillside Scenic Resource Area

Refer to the Land Use Element of the Comprehensive Plan for policies related to the Hillside Scenic Resource Area designation.

### 3. CIRCULATION

#### Objectives

- A. To provide public access to the scenic features of the City.
- B. To provide for safe and efficient means of ingress and egress into the Hillside Area for day-to-day vehicle and pedestrian traffic, as well as ready access for emergency vehicles.
- C. To minimize the scarring effect of major hillside streets.

#### Policies

- 1. Future improvements to Foothill Road should be designed so as to:
  - a. Provide a high level of service by minimizing congestion and the number of traffic signals.
  - b. Maintain its scenic qualities by keeping its present curvilinear path wherever possible, and by contouring and landscaping all man-made slopes.
  - c. Minimize the need for retaining walls or similar structures.
  - d. Preserve existing trees along this route wherever possible.
  - e. Improve bicycle circulation along this route.
- 2. East-west connector streets should, wherever feasible, be constructed between drainage areas, north of Poli Street and Foothill Road. The feasibility and location of such streets

will be determined as part of the Circulation and Drainage Master Plans. (See Section III, Submittal Plan Requirements.)

3. Two access points should be provided between all major drainage areas and extend onto Foothill Road. These access points are to be located as part of the Circulation and Drainage Master Plan for these drainage areas. Design should include, at a minimum, alignment feasibility studies based on policies contained in this Program.
4. Each hillside drainage area should be served by an interior loop street system. If a loop system is infeasible, the number of dwelling units served by a single, long residential street should be limited.
5. All public access streets, interior loop streets and inter-canyon connector streets should be designed to major residential street standards (see Appendix C).
6. Hiking trails, which may be required within the Hillside Area, should be dedicated and improved in conjunction with hillside development. (See Resource Element, Park and Recreation Element and Land Use Element policies). In addition, public hiking trails should be provided within a development, wherever feasible, to provide connections with any designated hillside trail system and the City's linear park system.

#### 4. CAPITAL IMPROVEMENTS

##### Objectives

- A. To demonstrate that the long-range urban service implications of hillside development are fully addressed, in order not to unintentionally preclude future development in any given

drainage area.

- B. To ensure the City's financial capability to participate, where necessary, in future improvements to the urban infrastructure.
- C. To achieve quality levels of service for present residents of the City prior to committing significant revenues to the expansion of services.

#### Policies

1. The practicality of extending urban services to the hillside portion of any Community must be demonstrated to the City, and the City must be financially able to participate, if necessary, in providing adequate services either prior to or in conjunction with development. In order to ensure that an adequate level of any service can be provided within the hillside portion of a Community, the adoption of a capital improvement deficiency study will be required for the entire hillside portion of each Community prior to filing an application for any future development within the HPR portion of that Community.
2. Urban service extensions to hillside parcels should address existing and projected flatland and hillside service problems and deficiencies, according to criteria which promote incremental development and the efficient operation of urban systems.
3. Where additional urban service facilities are shown to benefit solely future hillside development, such development will be required to finance all needed improvements, including participation in mitigating such flatland or downstream problems as may be caused by the additional development.

4. The first property or properties to develop in each Community of the Hillside Area must design, construct, and finance necessary capital improvements, so as not to preclude future hillside development in the Community or drainage area. Some of such capital improvements may be reimbursed through participation by other benefiting properties.
5. The extension of urban services to hillside areas will be considered concurrently with the consideration for development of those areas, subject to the adoption of a capital improvement deficiency study for the entire hillside portion of the Community in which the development is proposed.

## 5. RESOURCE PROTECTION

### Objectives

- A. To maintain the scenic character of the hillsides in areas of future development, by preserving significant natural landmarks and scenic ridgelines and slopes.
- B. To provide increased recreational opportunities for existing and future hillside residents, by improving access to existing parks and establishing additional parks or open, non-developed areas in conjunction with future hillside development.
- C. To maximize public access to hillside open space and recreation areas, by establishing a system of linear parks and hiking trails along scenic ridges and barrancas.
- D. To minimize the impact of hillside development on sensitive natural habitats and historical and archaeological resources.

## Policies

1. Scenic resource areas, such as skyline ridges and significant natural landmarks, as designated on the Land Use Plan Map, should be preserved in a natural state. It is the City's intent to obtain a reservation of a scenic easement from the property owner with respect to such scenic resource areas that are not intended for public access, in conjunction with any development which may occur on the remainder of the property in accordance with the policies and objectives of the Comprehensive Plan.
2. Scenic easements should be reserved for other areas, not designated as scenic resource areas, which are to be preserved in a natural state (such as steep slope areas which are to be preserved under a cluster development density transfer concept). An access easement should be required for any scenic resource area where it is deemed desirable to permit public access (e.g., scenic vista points, trails).
3. Future hillside neighborhood parks should be provided as necessary to serve residents based on the criteria in the Park and Recreation Element of the Comprehensive Plan. In addition, the City should encourage the park-like improvement of flood control retention facilities in the hillsides.
4. Hillside development should be designed, whenever possible, to preserve existing trees and areas of significant natural vegetation, and wildlife migration routes.
5. Hillside development should protect and preserve archaeological sites. The City may require that a qualified archaeologist be present during any grading operations.

## 6. PROJECT REVIEW STANDARDS

### Grading and Site Design

#### Objectives

- A. To preserve the natural character and appearance of the hill-sides.
- B. To use to the best possible advantage the limited resource of hillside view lots.

#### Policies

1. Hillside development should minimize grading, terracing, padding and cut and fill to the maximum extent possible. Where grading, terracing, padding or cut and fill is unavoidable, it should be shaped and rounded to simulate natural-appearing contours.
2. Cut and fill slopes will be limited to a maximum slope angle of two horizontal to one vertical.
3. No grading is permitted on any slope greater than 30%, except in limited cases for street or access purposes as approved by the City Engineer and City Planner.
4. Units should be sited on lots in such a way that the living areas take maximum advantage of the views afforded by the lot.
5. Each unit should be located so that it will not, to the maximum extent possible, interfere with the view from adjoining lots.

## Drainage Systems

### Objectives

- A. To provide for the safe and efficient disposal of storm water runoff from hillside development, while minimizing costs of expanding flatland drainage systems to accommodate additional hillside runoff.
- B. To minimize adverse visual impacts which may result from the design and placement of drainage facilities, by maintaining existing channels in a natural state, and allowing flexibility in the design of individual drainage systems.
- C. To design hillside drainage facilities in such a way that groundwater recharge is maximized.

### Policies

- 1. To the maximum extent possible, barranca channels should be preserved and maintained in their natural state, and detention facilities provided in locations which are most suitable for enhancing groundwater recharge. Use of concrete-lined channels should be avoided.
- 2. The developer must participate in the financing of any improvements needed to alleviate anticipated downstream impacts on existing flood control facilities.
- 3. Areas adjacent to flood control and storm drainage facilities in unimproved barranca channels (2:1 slope from the toe of the slope plus 20 feet) should be dedicated as Parcel "X" lands to maintain an adequate margin of safety.
- 4. Detention facilities and all other primary drainage facilities must be designed as required by the City Engineer and the County Flood Control District. Any detention basin should be located

in the upper third area of canyons. A geologic investigation must be made to ensure that any proposed retention facility will not cause slippage or seepage in downslope properties.

5. Detention facilities and Parcel "X" lands should be incorporated as private recreation areas whenever possible, and should be designed to minimize maintenance costs.
6. Where it is determined to be appropriate by the City Engineer, a site may drain to a private drainage system before entering the public drainage system. Any private drainage system must establish adequate on-going provisions for private maintenance of the system. The visual impacts of such private drainage systems, if above grade, will be critically evaluated in determining their suitability.

### Geologic Hazards

#### Objective

- A. To ensure the maximum level of safety to both existing and future hillside residents in the event of seismic activity, or other natural occurrences, through the proper evaluation and consideration of geologic hazards in future hillside development.

#### Policy

1. If required soils and geologic reports for a project do not demonstrate that all identified hazards can and will be mitigated, the project must be modified in order to mitigate such hazards.

## Landscaping

### Objectives

- A. To ensure the planting of hillside slopes in such a manner as to aid in controlling erosion and fire hazards, stabilizing exposed slopes, and reducing water consumption for landscaping purposes.
- B. To enhance the visual character of hillside development through the use of appropriate landscaping methods and materials.

### Policies

1. All man-made slopes four feet or higher should be planted and irrigated according to approved methods with an approved perennial type of planting selected from a listing of materials suited to hillside use developed by the City Parks and Recreation Department. Primary consideration will be given to the use of plants which aid erosion control and require little irrigation. Deviation from plant selections in the approved hillside listing must be reviewed and approved by the City Parks Superintendent.
2. In order to enhance the physical appearance of hillside developments, a minimum of one street tree per lot should be required to be located in, or immediately adjacent to, street rights-of-way. Such trees must be selected from an approved listing developed by the Parks and Recreation Department.
3. No occupancy clearance will be issued for any lot until all required planting, as approved by the City Parks Superintendent and the Building Official, has been viably established (i.e., capable of living and growing).

4. The developer will be responsible for the maintenance of all landscaping prior to the occupancy of homes. Hillside property owners will be required to assume the responsibility to fully maintain landscaped slopes. Appropriate irrigation systems may be required in the project design in order to facilitate and ensure proper maintenance. Agricultural planting and related irrigation systems may be permitted subject to detailed slope and geologic studies prepared by a qualified engineer.
5. Where deemed necessary to ensure the long-term maintenance of hillside landscaping, measures such as a special assessment district, homeowner's association, or some other mechanism may be required.

### Street Design

#### Objectives

- A. To minimize the adverse visual impact of streets on the hillside landscape.
- B. To establish internal street systems in future hillside developments which permit safe and efficient travel for motor vehicles, bicycles, and pedestrians, and ensure ready access for emergency vehicles.

#### Policies

1. The table in Appendix C, entitled Hillside Street Standards, delineates an alternative set of standards which may be used in the design of hillside streets. The use of split-level one-way streets will be allowed wherever such use will result in a more efficient use of the existing terrain, or will minimize the scarring effects of hillside development. Dead-end streets must

have a turn-around area with a minimum clear diameter of 40 feet, regardless of the permitted width of the street.

2. Streets should run with the natural contours of the land, and not at right angles to them, unless absolutely unavoidable. The burden will be upon the developer to show that streets running with the contours are infeasible.
3. Horizontal and vertical curves should be such that a minimum sight distance of 200 feet is provided at all points. The minimum horizontal centerline curve radius on residential streets should be 150 feet. Reversed curves should be connected with tangents as long as practicable. Major residential streets should be designed to incorporate vertical and horizontal curves greater than the minimums for residential streets, in order to provide for increased traffic flow.
4. The maximum centerline grade for residential streets should be 15%, but maximum grades will not be allowed at intersections or adjacent areas of transition. In these areas, the centerline grade should be flat, unless a steeper grade is permitted by the City Engineer. The maximum grade for major residential streets should be 12%. Changes in grade greater than 0.5% should be connected by vertical curves. The length of vertical curves must conform to standards of sight distances and riding qualities established by the City Engineer.
5. All hillside public streets must be provided with a minimum level of street lighting consistent with the standards set forth in "American National Standard Practice for Roadway Lighting." Adverse impacts on views should be mitigated in the location and design of street lights.

6. Easements and common driveways may be allowed in the hillsides to reduce the scarring of the natural landscape. The width must be a minimum of 12 feet for one housing unit, and 20 feet for two, three, or four units. The travelway to 5 units or more must be built to public street standards.
  
7. All subdivisions should provide public parking spaces at strategic vista points within the development. Developments should also provide adequate private off-street parking to minimize the need for parking on narrow hillside streets.

### III. SUBMITTAL REQUIREMENTS

#### 1. Requirements for Existing Urban Designated Areas and HPR Designated Areas Less Than Five Acres in Size

Projects located in Existing Urban designated areas which require discretionary permit(s) (e.g., planned development permit, modification/minor variance, subdivision), and in HPR designated areas involving existing lots of record less than five acres in size, must submit the following information as a part of any application for discretionary permits:

- (1) Soils and geology report (see item B, page 24 for more detail)
- (2) Grading plan (see item E, page 28 for more detail)
- (3) Hillside Height information for each lot, as required by the Zoning Ordinance

The above submittal requirements do not apply to the remodeling of, or additions to, existing residential development except as required by the Zoning Ordinance.

#### 2. Requirements for HPR Designated Areas

Applications for development of HPR designated properties in the Hillside Area (except for applications involving existing lots of record less than five acres in size) may not be filed prior to City Council adoption of a capital improvement deficiency study for the entire Community in which the project is proposed as required by the Comprehensive Plan. Such a study must be prepared by an engineering consultant, approved and selected by the City. The cost of the study must be paid for by the developer and/or property owner. (Refer to the Land Use Element of the Comprehensive Plan for a general listing of items to be considered as part of any capital improvement deficiency study.)

The following submittal requirements are established for all future residential development within areas designated Hillside Planned Residential (HPR). In addition to the basic submittal requirements for discretionary permits (e.g., change of zone, subdivision map, planned development permit), all of the items listed below must also be submitted as part of any application for discretionary permits:

- A. Slope/Density Calculation Worksheet and Map (see below for more detail);
- B. Soils and geology report (see below for more detail);
- C. Circulation and drainage master plan (see below for more detail);
- D. Building envelope plan (see below for more detail);
- E. Grading plan (see below for more detail);
- F. Three-dimensional drawings or models depicting existing conditions and as proposed after development (see below for more detail);
- G. An arborist's report (see below for more detail);
- H. A biologist's report (see below for more detail);
- I. an archaeologist's report (see below for more detail); and,
- J. Hillside Height information for each lot as required by the Zoning Ordinance.

- K. Analysis of other environmental issues (e.g., potential scenic resource impacts) identified as potentially significant by the EIR Committee.

**A. Slope/Density Formula and Map Requirements**

In applying the land use designations (defined under the "Land Use" Section) to specific parcels, the following slope/density formulas apply:

Average Natural Slope (%)	Permitted Density (units/gross acre)				
	HPR-4	HPR-6	HPR-8	HPR-15	HPR-20
0- 5.00	3.00	4.50	6.00	11.25	15.00
5.01-10.00	2.50	3.75	5.00	9.50	12.50
10.01-15.00	2.00	3.00	4.00	7.50	10.00
15.01-20.00	1.50	2.25	3.00	5.75	7.50
20.01-25.00	1.00	1.50	2.00	3.75	5.00
25.01-30.00	.50	.75	1.00	2.00	2.50
30.01 or greater	.10	.10	.10	.10	.10

Density credit of 1 unit per 10 acres will be given on any portion of a parcel with a natural slope greater than 30%. In calculating the average natural slope of a parcel, areas with less than 30% slope should be computed separately, and the total number of dwelling units permitted on a parcel will be the sum of:

- a) number of dwelling units for areas less than 30% slope, based on the permitted density corresponding to the average natural slope of that area, multiplied by the number of acres less than 30% slope; and
- b) 1 unit per 10 acres for areas greater than 30% slope.

Fractions of a dwelling unit must be rounded to the nearest whole number.

The number of dwelling units permitted in Hillside Planned Residential designated areas may be reduced from the maximum permitted under the slope/density formula if, based on the analysis of a specific site, the proposed development does not comply with the objectives and policies of the Comprehensive Plan or this Program.

The Slope/Density Calculation Worksheet is attached as Appendix A.

### Slope Map

In order to calculate permitted densities for Hillside Planned Residential designations, the applicant must submit a slope map. This map should be produced on a base topographical map of the site, at a scale of 1" per 50 feet or larger for parcels less than or equal to 20 acres, and 1" per 100 feet or larger for parcels greater than 20 acres. Maps should have a minimum contour interval of 10 feet, in constant increments from zero.

The slope map must show the location of slopes in the following percent slope categories: 0-10%; 10-20%; 20-30%; 30-50% and 50% and above. Slopes should be displayed either in contour bands or in 100 foot by 100 foot grids.

The average natural slope must be calculated by the following formula:

$$S = IL/A \times 100; \text{ where}$$

S = Average natural slope, in percent;

I = Contour interval, in feet;

L = Total accumulated length of all contours  
of interval "1," in feet,

A = The area being considered, in square feet.

In addition to a graphic display of slope information, the slope map must include calculations of acreage in each percent slope category, as well as a slope/acreage summary, which indicates:

1. Total number of acres with 30% or less slope, and the average natural slope of such areas; and
2. Total number of acres greater than 30% slope.

Number of dwelling units permitted on a parcel must be calculated on the basis of data presented in the slope/acreage summary. Alternative slope calculation methods, as approved by the Director of Community Development, may be used.

#### **B. Soils and Geology Report**

Soils and geologic reports (as defined by the Ventura County General Guidelines for Geologic Reports, see Appendix B for reference; the latest County Guidelines will be used for checking purposes), must be prepared by a qualified engineer and must, at a minimum, include the following:

1. A soils evaluation describing the nature of the subsurface soils and any soil conditions which would affect the geometrics of the proposed development. The soils evaluation must state whether the proposed plan is feasible and provide general solutions for all known hazardous conditions or problems. The evaluation must include the location and lots of any test borings.
2. An engineering geology evaluation defining geologic conditions of the site. The geologic evaluation must state

whether the proposed plan is feasible and provide general solutions for all known hazardous conditions or problems. The evaluation must include the location and lots of any test borings and shall evaluate the effect of the geology on the proposed development and on adjacent properties. The report must point out specific areas where development may create hazardous conditions and make recommendations regarding hazard mitigation.

3. The geology report must generally identify any soils and/or geologic conditions existing on adjacent sites located in such a manner or of such a nature as may be hazardous to the proposed project.

Soils and geologic investigations required for hillside development will be reviewed by a certified expert to be selected by the City, to be paid by the applicant, in order to determine the sufficiency of the evaluations.

#### **C. Circulation and Drainage Master Plan**

The first project within a hillside community or a drainage area, if the drainage area is larger than the defined Planning Community, must provide a Circulation and Drainage Master Plan for the Community or, if larger, the drainage area within which it is situated. (Projects on existing lots of record less than five acres in size are exempt from this requirement.) The following are the specific requirements for such a Plan:

1. The plan must be submitted with the discretionary permit applications for the proposed project, and notice will be given to property owners affected by the proposed Circulation and Drainage Master Plan at the time of the hearings on the discretionary permits.

2. The circulation portion of the Plan must include the design of a major residential street system for the Community or, if larger, the drainage area which meets all the City's adopted circulation policies. Specifically, the plan should demonstrate that:
  - a. A maximum 12% grade can be maintained on major residential streets:
  - b. Where it is required that more than one access to Foothill Road or other flatland streets be provided, such improvements are feasible and practical from an economic and engineering standpoint;
  - c. A major residential street connection can be made with adjoining Communities and drainage areas, if feasible, including a review of alternate connecting routes;
  - d. A demonstration how undeveloped or underdeveloped portions of the hillside area are not precluded access to Foothill Road or other flatland streets;
  - e. A demonstration how major residential streets will, to the maximum extent feasible, run with the natural contours of the hillsides.
3. The drainage portion of the Plan must depict the location and size of detention facilities and other flood control mechanisms. The plan must also include landscaping plans for proposed retention facilities. This plan will be subject to the review and approval of the Ventura County Flood Control District when their facilities are impacted.

If the developer proposes to improve the natural channels (e.g., concrete lining) rather than provide detention facilities, the developer must provide a funding mechanism which will pay for the capital expenditures necessary to expand existing facilities to accommodate the flow from a 100-year storm frequency. Such plans will also be subject to the review and approval of the Ventura County Flood Control District when their facilities will be impacted.

4. The Master Plan may also be required to address other specific urban service system problems (e.g., water and sewer systems) which may be identified in a given hillside community area.

#### **D. Building Envelope Plan**

The developer must submit a three-dimensional building envelope plan depicting the location and design of the dwelling unit on each lot, and the direction it is facing. When the design of the unit is known, the developer shall also provide floor plans and elevations for each type of unit being used in the project.

The intent of a building envelope is to specify where a unit can be built and expanded without interfering substantially with the view from other lots. A building envelope restriction will be made a condition of the Planned Development permit or other appropriate approvals and must be recorded as part of the covenants, conditions and restrictions (CC&R's) for the tract with language approved by the City. The following are required for each building envelope plan:

1. The plan must be prepared by a registered civil engineer or licensed architect;

2. The plan must reflect a three-dimensional diagram, indicating the maximum building parameters for each lot (i.e., height, width, depth);
3. The plan must indicate the finished floor elevation of the four corners of the building pad, and the height, bulk and mass of existing adjacent structures;
4. The plan must indicate the existing and proposed contours of the site (contours with five foot maximum intervals);
5. Slope areas which are 30% or greater must be indicated by shading; and,
6. The scale of the plan must be at least one inch equaling 40 feet.

#### **E. Grading Plan**

A grading plan prepared by a registered civil engineer must be submitted which shows at least the following information:

- all adjacent and nearby ridgelines and their elevations in relation to the proposed development;
- existing and proposed grades (contours with five foot maximum intervals);
- all areas of cut and fill (shaded to highlight these areas);
- location and height of all retaining walls;
- any proposed drainage system or structures;
- minimum of two cross sections through the site showing existing and proposed grades (more may be required if necessary);
- location of 30% slopes (shaded to highlight these areas); and,
- location and size of all trees or significant landscaping to be preserved and/or removed.

**F. Three-Dimensional Drawing or Model**

Three-dimensional drawings or models must depict the property to be developed before and after the proposed project is completed, and must show all existing and proposed streets. This requirement may be waived by the EIR Committee if it finds, based on a preliminary evaluation, that the proposed project would have no significant impact on the scenic resources of the hillside area, or it may be made part of an EIR.

**G. Arborist's Report**

A report prepared by a qualified arborist must be submitted which assesses the conditions of all trees and stands of substantial native vegetation, including an assessment of any oak woodlands. The report should determine the number and condition of any trees and substantial native vegetation and recommend short and long-term methods necessary for maintenance and preservation. This requirement may be waived by the EIR Committee if it finds based, on a preliminary evaluation, that the proposed project would have no impact on any trees or areas of significant native vegetation, or it may be made part of an EIR.

**H. Biologist's Report**

A report prepared by a qualified biologist must be submitted which assesses the impacts on the flora and fauna in the areas to be developed. The report should identify any significant species and wildlife migration routes, and make recommendations for their maintenance and preservation. This requirement may be waived by the EIR Committee if it finds, based on a preliminary evaluation, that the proposed project would have no impact on any significant species or wildlife migration routes, or it may be made part of an EIR.

## **I. Archaeologist's Report**

A report prepared by a qualified archaeologist must be submitted which surveys the area to be developed and identifies any known or suspected archaeological sites. The survey should determine the significance of such sites and make recommendations for their testing. If significant sites are identified, the report should contain recommendations for their maintenance and preservation. This requirement may be waived by the EIR Committee if it finds, based on a preliminary evaluation, that the proposed project would have no impact on any known or suspected archaeological sites, or it may be made part of an EIR.

**APPENDIX A**

**SLOPE/DENSITY CALCULATION WORKSHEET**

**I. SLOPE/ACREAGE CALCULATIONS:**

**A. 0-30% Slope Areas:**

Category	Acres	Average Slope			Slope-weighted Acres
0 - 5%	_____	X	2.5	=	_____
5.01-10%	_____	X	7.5	=	_____
10.01-15%	_____	X	12.5	=	_____
15.01-20%	_____	X	17.5	=	_____
20.01-25%	_____	X	22.5	=	_____
25.01-30%	_____	X	27.5	=	_____
<b>Total</b>	_____		<b>Total</b>		_____

Total Slope-weighted Acres  $\div$  Total Acres = Average Slope

\_\_\_\_\_  $\div$  \_\_\_\_\_ = \_\_\_\_\_

B. Greater than 30% slopes Areas: \_\_\_\_\_ Acres

**II. SLOPE/DENSITY CALCULATIONS:**

A. Land Use Designation: HPR-\_\_\_\_\_

B. 0-30% Slope Areas:

Average slope \_\_\_\_\_ % slope Category  
 \_\_\_\_\_ dwelling units/gross acres x \_\_\_\_\_ acres = \_\_\_\_\_ units

C. Greater than 30% slope areas:

0.01 dwelling units/gross acre x \_\_\_\_\_ acres = \_\_\_\_\_ units

D. Total Dwelling Units:

B \_\_\_\_\_ + C \_\_\_\_\_ = Total units \_\_\_\_\_

**SAMPLE**  
**SLOPE/DENSITY CALCULATION WORKSHEET**

**I. SLOPE/ACREAGE CALCULATIONS:**

**A. 0-30% Slope Areas:**

Category	Acres	Average Slope	Slope-weighted Acres
0 - 5%	<u>-0-</u>	X 2.5	<u>-0-</u>
5.01-10%	<u>-0-</u>	X 7.5	<u>-0-</u>
10.01-15%	<u>.034</u>	X 12.5	<u>0.425</u>
15.01-20%	<u>.138</u>	X 17.5	<u>2.415</u>
20.01-25%	<u>.020</u>	X 22.5	<u>.45</u>
25.01-30%	<u>.085</u>	X 27.5	<u>2.338</u>
<b>Total</b>	<u>.277</u>	<b>Total</b>	<u>5.628</u>

Total Slope-weighted Acres ÷ Total Acres = Average Slope

$$\frac{5.628}{.277} = 20.31\%$$

**B. Greater than 30% slopes Areas:** .211 Acres

**II. SLOPE/DENSITY CALCULATIONS:**

**A. Land Use Designation:** HPR-20

**B. 0-30% Slope Areas:**

Average slope 20.31% 20-25 % slope Category  
5 dwelling units/gross acres x .277 acres = 1.4 units

**C. Greater than 30% slope areas:**

0.01 dwelling units/gross acre x .21 acres = .021 units

**D. Total Dwelling Units:**

B 1.4 + C .021 = Total units 1.421

EXAMPLE FOR .488 acre parcel in an area designated HPR-20

## APPENDIX B

# GENERAL GUIDELINES FOR GEOLOGICAL REPORTS FOR THE COUNTY OF VENTURA

The purpose of this statement is to provide geologists who submit reports to the Department of Public Works, County of Ventura, with an understanding of what kinds of information, discussion, and recommendations are desired in order that such reports can be accepted. It is recognized that certain geologic interpretations cannot be firm or complete, at least in advance of grading operations, but it is expected that all kinds of pertinent data will be presented fully and clearly, so that interpretations and recommendations can be critically reviewed by others. It also is recognized that different physical situations demand reports differing from one another in scope, length, and organization; most of the following comments are therefore intended to serve as a general guide for those persons who prepare and use geological reports, rather than as a rigid framework of requirements.

### I. GEOLOGICAL MAPPING

A. Each report must be a product of independent geologic mapping of the subject area at an appropriate scale and in sufficient detail to yield a maximum return of pertinent data. In connection with this objective, it may be necessary for the geologist to extend his mapping into adjacent areas.

B. All mapping should be done on a base with satisfactory horizontal and vertical control—in general a detailed topographic map. The nature and source of the base map should be specifically indicated. *For sub-divisions, the base map should be the same as that to be used for the tentative map or grading plan.*

C. Mapping by the geologist should reflect careful attention to the lithology, structural elements, and three-dimensional distribution of the earth materials exposed or inferred within the area. In most hillside areas these materials will include *both* bedrock and surficial deposits. A clear distinction should be made between observed and inferred features and relationships.

D. A detailed large-scale map normally will be required for a report on a tract, as well as for a report on a smaller area in which the geologic relationships are not simple.

E. Where three-dimensional relationships are significant but cannot be described satisfactorily in words alone, the report should be accompanied by one or more appropriately positioned structure sections.

F. The locations of test holes and other specific sources of subsurface information should be indicated in the text of the report or, better, on the map and any sections that are submitted with the report.

### II. GENERAL INFORMATION

Each report should include definite statements concerning the following matters:

A. Location and size of subject area, and its general setting with respect to major geographic and geologic features.

B. Who did the geologic mapping upon which the report is based, and when the mapping was done.

C. Any other kinds of investigations made by the geologist and, where pertinent, reasons for doing such work.

D. Topography and drainage in the subject area.

E. Abundance, distribution, and general nature of exposures of earth materials within the area.

F. Nature and source of available subsurface information. Suitable explanations should provide any technical reviewer with the means for assessing the probable reliability of such data. (Subsurface relationships can be variously determined or inferred, for example, by projection of surface features from adjacent areas, by the use of test-hole logs, and by interpretation of geophysical data, and it is evident that different sources of such information can differ markedly from one another in degree of detail and reliability according to the method used).

### III. GEOLOGIC DESCRIPTIONS

The report should contain brief but complete descriptions of all natural materials and structural features recognized or inferred within the subject area. Where interpretations are added to the recording of direct observations, the bases for such interpretations should be clearly stated.

The following check list may be useful as a general, though not necessarily complete, guide for descriptions:

A. Bedrock—igneous, sedimentary, metamorphic types.

1. Identification as to rock type (e.g.; granite, silty sandstone, mica schist).

2. Relative age, and, where possible, correlation with named formations (e.g.; Rincon formation, Vaqueros sandstone).

3. Distribution.

4. Dimension features (e.g.; thickness, outcrop breadth, vertical extent).

5. Physical characteristics (e.g.; color, grain size, nature of stratification, foliation, or schistosity, hardness, coherence).

6. Special physical or chemical features (e.g.; calcareous or siliceous cement, concretions, mineral deposits, alteration other than weathering).

7. Distribution and extent of weather zones; significant differences between fresh and weathered rock.

8. Response to natural surface and near-surface processes (e.g.; raveling, gullying, mass movement).

B. Structural features—stratification, foliation, schistosity, folds, zones of contortion or crushing, joints, shear zones, faults, etc.

1. Occurrence and distribution.

2. Dimensional characteristics.

3. Orientation, and shifts in orientation.

4. Relative ages (where pertinent).

5. Special effects upon the bedrock. (Describe the conditions of planar surfaces).

6. Specific features of faults (e.g.; zones of gouge and breccia, nature of offsets, timing of movements); are faults active in either the geological sense or the historical sense?

C. Surficial (unconsolidated) deposits—artificial (manmade) fill, topsoil, stream-laid alluvium, beach sands and gravels, residual debris, lake and pond sediments, swamp accumulations, dune sands, marine and nonmarine terrace deposits, talus accumulations, creep and slopewash materials, various kinds of slump and slide debris, etc.

1. Distribution, occurrence, and relative age; relationships with present topography.
2. Identification of materials as to general type.
3. Dimensional characteristics (e.g.; thickness, variations in thickness, shape).
4. Surface expression and correlation with features such as terraces, dunes, undrained depressions, anomalous protuberances.
5. Physical or chemical features (e.g.; moisture content, mineral deposits, content of expansible clay minerals, alteration, cracks and fissures, fractures).
6. Physical characteristics (e.g.; color, grain size, hardness, compactness, coherence, cementation).
7. Distribution and extent of weathered zones; significant differences between fresh and weathered material.
8. Response to natural surface and near-surface processes (e.g.; raveling, gullying, subsidence, creep, slope-washing, slumping, and sliding).

D. Drainage—surface water and groundwater.

1. Distribution and occurrence (e.g.; streams, ponds, swamps, springs, seeps, subsurface basins).
2. Relations to topography.
3. Relations to geologic features (e.g.; previous strata, fractures, faults).
4. Sources and permanence.
5. Variations in amounts of water (e.g.; intermittent springs and seeps, floods).
6. Evidence for earlier occurrence of water at localities now dry (e.g.; vegetation, mineral deposits, historic records).
7. The effect of water on the properties of the in-place materials.

E. Features of special significance (if not already included in foregoing descriptions).

1. Features representing accelerated erosion (e.g.; cliff reentrants, badlands, advancing gully heads).
2. Features indicating subsidence or settlement (e.g.; fissures, scarp-lets, offset reference features, historic records and measurements).
3. Features indicating creep (e.g.; fissures, scarplets, distinctive patterns of cracks and/or vegetation, topographic bulges, displaced or tilted reference features, historic records and measurements).
4. Slump and slide masses in bedrock and/or surficial deposits; distribution, geometric characteristics, correlation with topographic and geologic features, age and rates of movement.
5. Deposits related to recent floods (e.g.; talus aprons, debris ridges, canyon-bottom trash).
6. Active faults and their recent effects upon topography and drainage.

#### IV. THE BEARING OF GEOLOGIC FACTORS UPON THE INTENDED LAND USE

Treatment of this general topic, whether presented as a separate section or integrated in some manner with the geologic descriptions, normally constitutes the principal contribution of the report. It involves *both* (1) the effects of geologic features upon the proposed grading, construction, and land use, and (2) the effects of these proposed modifications upon future geological processes in the area.

The following check list includes the topics that ordinarily should be considered in submitting discussion, conclusions, and recommendations in the geologic reports:

- A. General compatibility of natural features with proposed land use: Is it basically reasonable to develop the subject area?
  1. Topography.
  2. Lateral stability of earth materials.

3. Problems of flood inundation, erosion, and deposition.
4. Problems caused by features or conditions in adjacent properties.
5. Other general problems.

B. Proposed cuts.

1. Prediction of what materials and structural features will be encountered.
2. Prediction of stability based on geologic factors.
3. Problems of excavation (e.g.; unusually hard or massive rock, excessive flow of groundwater).
4. Recommendations for reorientation or repositioning of cuts, reduction of cut slopes, development of compound cut slopes, special stripping above daylight lines, buttressing, protection against erosion, handling of seepage water, setbacks for structures above cuts, etc.

C. Proposed masses of fill.

1. General evaluation of planning with respect to canyon-filling and sidehill masses of fill.
2. Comment on suitability of existing natural materials for fill.
3. Recommendations for positioning of fill masses, provision for underdrainage, buttressing, special protection against erosion.

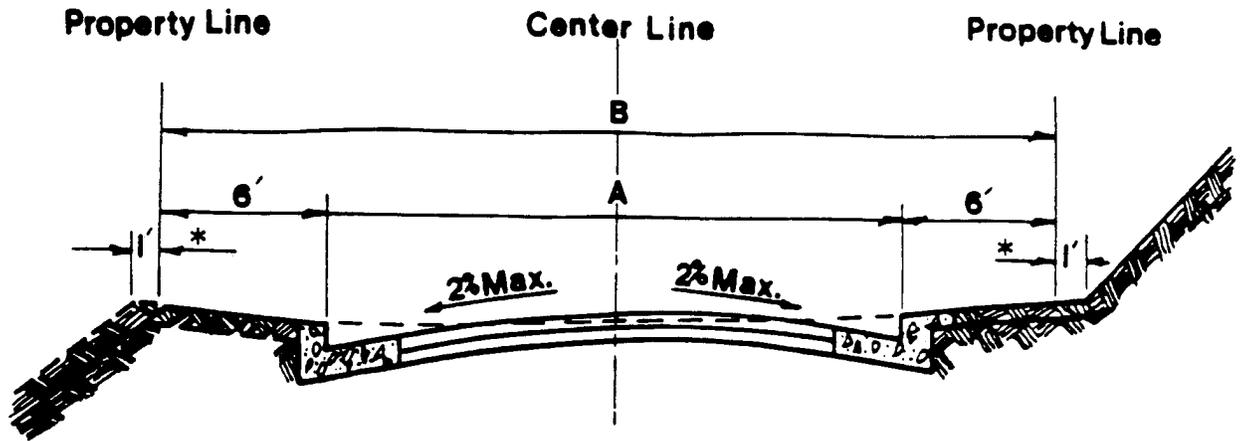
D. Recommendations for subsurface testing and exploration.

1. Cuts and test holes needed for additional geologic information.
2. Program of subsurface exploration and testing, based upon geologic considerations, that is most likely to provide data needed by the soils engineer.

E. Special recommendations:

1. Areas to be left as natural ground.
2. Removal or buttressing of existing slide masses.
3. Flood protection.
4. Protection from wave erosion along shorelines.
5. Problems of groundwater circulation.
6. Position of structures with respect to active faults.

**APPENDIX C**  
**STREET GEOMETRICS**



**HILLSIDE STREET STANDARDS**

STREET DESIGNATION	TRAVELWAY WIDTH "A"	TOTAL R.O.W. WIDTH "B"	SIDEWALK REQUIRED	MAX. GRADE PERMITTED	MIN. CURVE RADII PERMITTED	COMMENTS
RESIDENTIAL STREET (one-way)	20	32	1 side only (same side as parking)	15%	150'	PARKING PERMITTED ON ONE SIDE ONLY
SPLIT-LEVEL STREET (one-way in each direction)	20' each level	V**	Both sides	15%	150'	PARKING PERMITTED ON RIGHT SIDE OF EACH LEVEL ONLY
RESIDENTIAL STREET (two-way)	32	44	1 side only (same side as parking)	15%	150'	PARKING PERMITTED ON ONE SIDE ONLY
MAJOR RESIDENTIAL (two-way) [parking both sides]	40	56	Both sides	12%	150'	PARKING PERMITTED ON BOTH SIDES

\* 1' extension only if adjacent to sidewalk  
 \*\* Varies, depending on slope



**APPENDIX D**

RESOLUTION NO. 89-104

RESOLUTION OF THE CITY COUNCIL OF THE  
CITY OF SAN BUENAVENTURA ADOPTING AN  
AMENDED HILLSIDE MANAGEMENT PROGRAM

BE IT RESOLVED by the City Council of the City of San Buenaventura as follows:

SECTION 1: The City's Comprehensive Plan being approved concurrently herewith provides in pertinent part as follows:

"The Hillside Management Program was established in 1978 in response to concerns that the City's valuable hillside area should be safeguarded both physically and aesthetically by minimizing the effects of development. The Hillside Area is identified on the Land Use Plan Map.

All hillside development must be consistent with the provisions of this Comprehensive Plan and City Zoning and Grading Ordinance, which apply to the Hillside Area, and must also be consistent with provisions of the Hillside Management Program adopted by separate City Council resolution. The Hillside Management Program contains standards, guidelines and the review process for proposed development in the Hillside Area...." (p. III-8)."

"All future residential land uses in areas designated for 'Hillside Planned Residential' development shall be subject to the provisions of the Hillside Management Program and any other applicable policies contained in the Comprehensive Plan." (p. III-20)."

SECTION 2: The document attached hereto, entitled "Hillside Management Program City of San Buenaventura" is hereby adopted as the City's Hillside Management Program implementing the updated Comprehensive Plan being approved concurrently herewith.

PASSED AND ADOPTED this 28th day of August, 1989.

  
City Clerk

EV:8-203

STATE OF CALIFORNIA            )  
COUNTY OF VENTURA            )  ss  
CITY OF SAN BUENAVENTURA      )

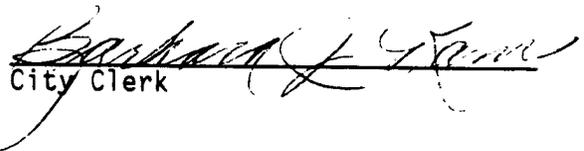
I, BARBARA J. KAM, City Clerk of the City of San Buenaventura, California, do hereby certify that the foregoing Resolution was passed and adopted by the City Council of the City of San Buenaventura, at a regular meeting thereof, held on the 28th day of August, 1989, by the following vote:

AYES:                    Councilmembers Sullard, Francis, Villeneuve,  
                              Drake, McWherter, Crew and Monahan.

NOES:                    None.

ABSENT:                 None.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the official seal of the City this 29th day of August, 1989.

  
City Clerk