

# Chapter 3

## **IMPLEMENTING THE VISION: HILLSIDE DESIGN GUIDELINES (RESIDENTIAL)**

## IMPLEMENTING THE VISION – COMPREHENSIVE DESIGN GUIDELINES

The design guidelines are intended to convey overall best practices. These are additional to specific guidelines tailored to a specific place or neighborhood. However, conditions vary from site to site, and there may be a more appropriate solution that is in conflict with or is not included in the guidelines. ***Innovative design solutions that are consistent with the spirit of the design principles identified in this document will be considered and encouraged.***

### HILLSIDE DESIGN GUIDELINES

**Site Planning** - Site planning involves a careful analysis of the opportunities and constraints of the site, including existing site features such as mature trees, topography, and drainage patterns. The components of site development extend beyond building placement and configuration, including topography, surrounding uses, retaining walls, landscape design, hardscape considerations, and parking.

#### A. Building Location

1. Buildings in hillside areas should consider topography. Building location and profile should reflect the topography and slope.
2. On hillside sites, it is imperative that new homes follow the topography. Buildings may be terraced up the hillside, or built into the upslope in order to minimize the alteration of the landform.
3. Decks should terrace with the hillside.
4. Building into the hillside to diminish visual impact of mass and scale is encouraged even if significant grading may be required.
5. Consider relationship to adjacent buildings and sunlight.
6. Coordinate setbacks with the building design and streetscape. Consider prevailing setback of buildings on the street as well as Code requirements.
7. Mechanical equipment, including HVAC, standpipes, fire department connections, backflow preventers and other equipment should be located away from the street and screened from view in ways that are integrated into the building and site design.
8. Trash storage should be located so as not to be visible from the street, but appropriately screened with access to the street.

#### B. Solar Design

1. Design to maximize options for passive and active solar heating and cooling. Provide access to sunlight while employing common-sense techniques to increase energy conservation and interior comfort.
2. Any design features for advantageous passive or active solar design must be fully integrated into the overall design of the structure.
3. Provide for passive solar design by:
  - careful orientation of building walls and window openings
  - window and roof details on a site in response to sun patterns
  - generous roof overhangs or other shading devices especially at south and west facing elevations

### C. Yards and Usable Open Space



**Houses of different styles with varied landscaping work well on the same street**

1. In hillside areas there may be lots where flat rear or flat yards may not be possible or appropriate based on existing topography. Landform alteration to create yards is discouraged. Integrate outdoor areas into the site design of new developments, surrounding buildings and existing open spaces.
2. Develop all open space with well-designed drought-tolerant landscaping suitable for fire-prone areas.
3. To eliminate use of excessive retaining walls, some grading is preferable. Substantial grading in hillside sites to alter landform is strongly discouraged.
4. Cut and fill type grading is discouraged if its purpose is to revise the topography to create a flat pad.

### D. Retaining Walls



**Decorative retaining walls complement building and fit topography**

1. Minimize the use of retaining walls to modify landform, especially those visible from the street.
2. Use decorative material to blend into the landscape, or if appropriate, match the building design.
3. Use of retaining walls to create backyards in hillside areas is not appropriate.
4. Provide landscaping to minimize the visual impact of retaining walls.

### E. Garage Location and Driveways

1. Ensure new driveways have safe site lines and distances.
2. Driveway slope should be limited to allow easy pedestrian access and trash collection.
3. Site garages consistent with dominant existing garage location pattern (i.e., detached and at the rear of the property or attached). Orient garage door away from the street wherever possible.

4. Fully integrate the garage within overall structure OR provide accessory structure that is consistent with overall design
5. Driveways should be located away from street intersections to minimize conflict with traffic on public streets.



**Permeable paving design and driveway with integrated landscape areas**

6. Minimize the amount of paved areas as much as possible. Use of circular driveways or large paved areas is discouraged.
7. Permeable paving systems are strongly encouraged. In addition, “Hollywood” style driveways, where the tracks for the car are separated by strips of green lawn or gravel, also reduce stormwater runoff.
8. Include decorative driveway paving materials.

#### **F. Landscape Design (Including Hardscape)**



**Landscaping complements building, helping it fit with topography**

1. Landscaping on hillside properties should reflect native plants that are fire-resistant.
2. Provide clear area around structures as a fire prevention measure.
3. Landscaping should provide a natural look, minimizing visual impact and size of the intervention (buildings, decks, etc.) into the natural hill.
4. Provide landscape design complementary to site design and building design in all required setback areas. Pay particular attention to design and proper plant types on sloped areas.



**Mature trees add to neighborhood character**

5. Maintain existing trees, particularly mature trees, as much as possible.
6. Particular consideration should be paid to existing Oak, Bay Laurel and Sycamore trees. Appropriate landscaping should be used below the canopies of these trees.
7. Use of indigenous trees is encouraged.
8. All landscaping should be drought tolerant. Minimize use of turf areas.
9. Pay particular attention to drainage on hillside sites. Care should be taken not to impact adjacent properties. While stormwater runoff should be minimized, safety and slope stabilization are the priority.
10. Minimize stormwater runoff:
  - Site design should maximize water permeability by reducing paved areas (hardscape), use of permeable paving materials, and preserving open space drainage ways when feasible
  - Avoid large continuous paved areas.
  - Consider use of permeable paving materials such as ungrouted brick pavers or interlocking paving systems in which grass can be grown.
  - Consider conveying stormwater from building roofs to an on-site drainage system, such as French drains, detention basins, bioswales, or into planted areas.
  - Consider use of swales and retention areas to assist with on-site retainage when feasible.

#### **G. Walls and Fences**

1. Front yards in Glendale are typically open to the street. Use of front yard fences and walls are discouraged.
2. Where fences may be appropriate, the front yard should maintain its open appearance toward the street, and the design and materials should meet City design and zoning criteria.
3. Whenever they are used, walls and fences should be designed in a style, material, and color that complement the overall building and/or site design.



**Planter boxes used to define edge of front yard**

4. Utilize landscaping instead of a wall or fence. Use decorative material that is durable and suitable for exterior use. Materials such as wood, wrought iron, and stone should be used for walls and fences. Use of chain-link, vinyl or other plastic material is strongly discouraged.
5. Natural colors consistent with the architectural design are encouraged.
6. Both sides of all perimeter walls or fences should be architecturally treated.

**Mass and Scale – New projects should fit well with surrounding building fabric. While new proposals need not copy existing development, mass and scale should respect adjacent building context.**

**A. Relate Buildings to Existing Context**



**New second story set back to reduce massing**

1. Provide relationship to site topography. If street slopes, build taller massing on upslope side of the property.
2. Build into the hillside if necessary to reduce the appearance of a monumental structure.
3. Relate new buildings (particularly if larger than existing context) to existing adjacent buildings through use of proportion, transition, or other design features.

**B. Relate Buildings to Existing Topography**

1. Building form and profile should follow existing topography.
2. Minimize the use of retaining walls to alter grades. Where retaining walls are necessary, they should terrace with the existing topography as much as possible.
3. New projects may be larger than existing development, provided the mass and scale of the new proposal is appropriate and transitions well to the existing context.
  - This may require a second floor (or third floor where allowed) to be set back from the front and sides of the floor below.
  - Provide an appropriate massing concept for proper fit into the neighborhood.

- Relate to the predominant neighborhood pattern or massing configuration, rather than one or two buildings that may be out of scale.
- Design of larger buildings should assist in diminishing how the size and scale appears, especially when viewed from the street.

**C. Architectural Concept**



**Strong architectural idea: post and beam “L” shaped house with extended eaves**

1. Each building or project should have a governing architectural idea that governs massing and design decisions. Architectural concept should be appropriate to site and concept and executed with rigor and consistency.
2. Massing of the project should reinforce the overall architectural concept.
3. Identify open space, building solid and void, overall configuration in relation to overall concept, relationship to adjacent structures and best functional project design.

**D. Scale and Proportion/ Monumentality**



**Second floor designed to fit well between two one-story buildings.**

1. The scale and proportion of a project should be designed to fit well within the surrounding context, even if its overall size is larger.
2. A project can be designed to make it appear more monumental or to help diminish the apparent size and scale of its mass.
  - Placement of building forms in relation to one another, emphasis of horizontal and vertical elements, size scale and placement of entries, doors, windows and other architectural elements all contribute to the perceived mass and scale of the project.
  - Proper use of design elements makes it possible for projects varying in size to be designed to visually fit into the surrounding context.
3. Proper location and configuration of entries and prominent building elements should relate to overall building concept as well as neighborhood pattern, site configuration and slope, and relationship to streets and corners.
4. Differentiating the building with a hierarchy of architectural elements can also assist in achieving a balanced proportional relationship within the project itself, and to the surrounding context.

5. Over-scaled or 2-story monumental entries are discouraged.
6. Side yard setbacks should be varied where possible to help create different sized yards and private patio areas. This variation maximizes the use of land and enhances dwelling privacy.
7. Surface detailing should not serve as a substitute for well integrated and distinctive massing.

#### **E. Roof Forms**

1. Use roofline configurations (i.e., shed, gable, hip, flat) to reinforce the overall architectural idea. In some cases, variation of the roof form, heights etc, can provide visual interest and provide appropriate scale and proportion for the structure.
2. Roof forms should be consistent with the overall building design.
3. Continue any decorative roof treatments around the building or terminate in a logical manner.

**Design and Detailing-The design and detailing of the building are paramount to a quality environment. Detailing and choice of materials should reinforce the overall project design. Architectural design elements, details and materials should be consistent throughout a project, recognizing that a building is 3-dimensional and must be well designed on all sides.**

#### **A. Overall Design and Detailing**



**Well-crafted buildings of different styles on the same street provide variety and visual interest**

1. Design and detailing should enhance the overall architectural idea and be consistent around the building.
2. A variety of architectural designs and styles are encouraged. While there is no preferred design style, new designs should consider the existing context.
3. The single-family homes in Glendale are generally well crafted and of high quality. New homes should match the high level of quality in the neighborhood.

#### **B. Entryways**

1. Entries should be well integrated into the overall building design, open to and visible to the street. However, entries should not be monumental in scale or character.
2. Recess or otherwise articulate building entries for visual interest and to provide a sense of arrival to the structure.
3. Entries should not be over scaled. Two-story entries are discouraged. Entries should be properly scaled and integrated into the overall architecture of the structure.

#### **C. Windows and Doors**





**Well-crafted homes with open front yards are characteristic**

1. Design windows and doors to coordinate with the architectural design of the building. Window and door type, material, shape, and proportion should complement the architectural design.
2. Maximize daylighting and views through window placement and design.
3. Use of “security bars” is discouraged, especially along the street front.
4. Window articulation, such as sills, trim, kickers, shutters, or awnings, should be applied where appropriate to the architectural style to improve the facade of the home.
5. To enhance privacy, windows on side elevations of adjacent homes should be staggered whenever possible. Windows should not be positioned directly opposite of windows in an adjacent structure.
6. Where appropriate to the architectural style, windows should be inset from building walls to create shade and shadow detail. The minimum inset should be one inch.
7. EPA “Energy Star” labeled windows with low-e coatings are encouraged.

#### **D. Finish Materials**



**Use of natural materials blends with the building and reinforces building design**

1. Natural materials should be used wherever possible. Colors and materials should blend with the hillsides and not stand out.
2. Reinforce overall building design with high quality design and detailing.
3. Change materials on building facades to enhance the overall design, creating visual interest.
4. Use high quality materials, especially facing the street.
5. “Wrap” finish materials around exterior corners (to be terminated at an inside corner) to alleviate the appearance of a “wallpaper” application.
6. Materials should be utilized that reduce the transfer of heat into and/or out of the building.

7. Use recycled content materials, such as wood substitutes, recycled concrete and asphalt, as well as non-toxic materials, whenever possible.

#### **E. Wall Thickness**

1. For more traditional building designs, expression of wall thickness can be achieved by providing recessed windows and entries to exaggerate wall thickness.
2. For contemporary designs and some ranch style buildings, flush windows are also appropriate.

#### **F. Color**

1. Color and materials in the hillside areas should blend with the hillsides and not provide a substantial contrast.
2. Develop a color palette that complements and enhances the overall building design.
3. Use of the following colors/materials is discouraged:
  - Highly reflective materials and colors, especially those that produce glare
  - Large expanses of dark colored surfaces
  - Bright or garish colors on large walls

#### **G. Paving Materials**



**Decorative paving at the walkway and entry complement revival style building**

1. Use of decorative paving treatments is encouraged at building entrances, walkways and at locations where pedestrian paths meet vehicular streets or driveways.
2. Provide permeable paving wherever possible.
3. Keep paving patterns simple and relate to the overall architectural design of the building. Appropriate paving materials include masonry block pavers, brick, stone, granite, and concrete.
4. Textured concrete finishes and/or integrally colored surfaces may be enhanced by scoring or accented with contrasting paving materials.
5. Relate color/s to the color scheme of the building.
6. Use of soft paving materials (i.e., Grass Crete) is encouraged when appropriate to the site.
7. Concrete bands may be used to define the edge as a transitional tool between differing materials.

#### **H. Equipment/ Trash Location and Enclosure**

- 1.** Any equipment, whether on the side of a structure or on the ground, should be screened. Screening should be architecturally integrated in terms of materials, color, shape, and size.
- 2.** Trash should be in an accessible location yet out of view.
- 3.** Rain gutters, downspouts, vents, and other roof protrusions should be appropriately placed to complement the adjacent materials and/or colors.
- 4.** The design of ancillary structures (guesthouses, cabanas, barns, storage sheds, etc.) should be architecturally integrated with the main structure through the use of wall and roof forms, materials, architectural detailing, fence or wall connections, and landscaping.
- 5.** New electrical, telephone, cable television, and other distribution lines and mechanical equipment should be placed underground.
- 6.** Utility connections located above ground should not interfere with or adversely impact access, visibility, appearance, or the character of the structures near which the connections are located and should be screened with landscaping.

## **HILLSIDE SUBDIVISIONS**

### **A. Grading Aesthetics and Safety**

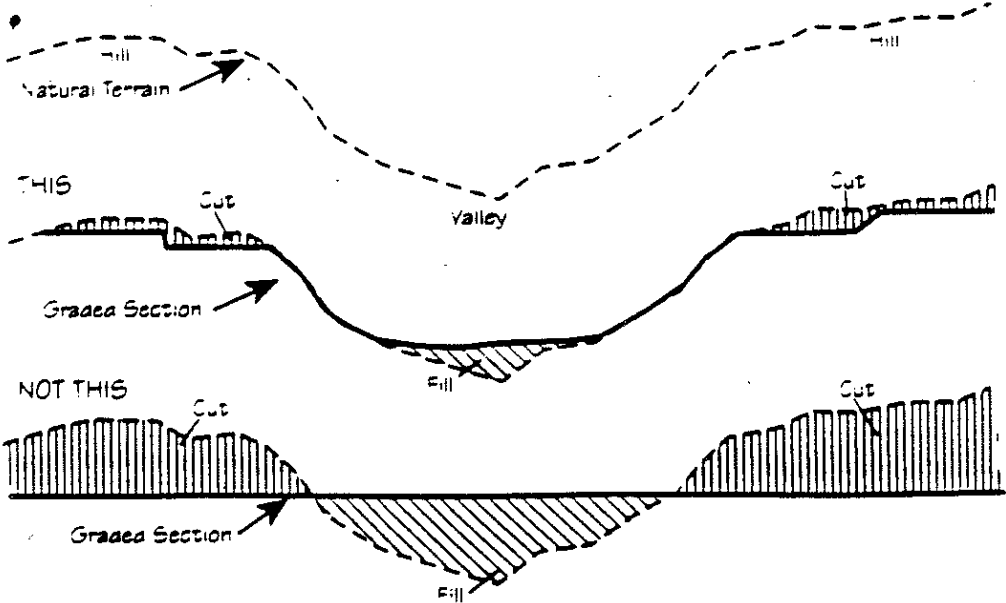
The following principles illustrate what is commonly referred to as land form grading or contoured grading. The objective is to minimize grading, and, where grading is necessary, to create natural appearing land forms. The distinguishing natural features, such as slopes, ridges, stream courses, and vegetation are identified. These are then replicated within the area of development. This contrasts with mass grading, which focuses on leveling natural features to create flattened building areas. See Chapter 15.12, Glendale Municipal Code for specific standards.

### **Height and Location of Manufactured Slopes**

Cut slopes and fill slopes should not be allowed to exceed a height which may be unstable or would require extensive engineering features and be highly visible. Slopes which are concealed, at least 40 feet from a public right-of-way, may be taller than slopes with a public view. Project design should attempt to use structures and landscaping to reduce the visibility of taller manufactured slopes.

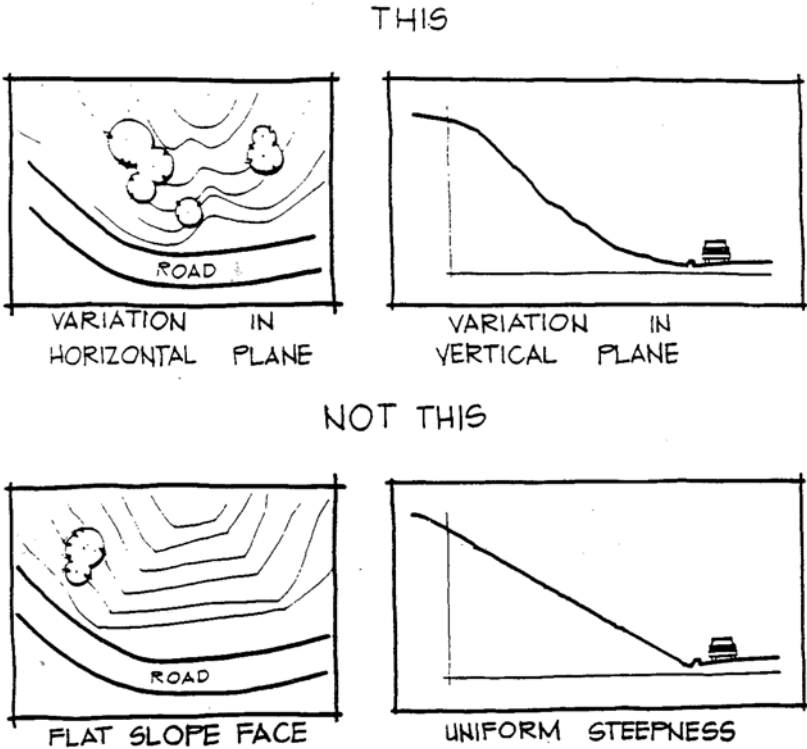
### Change in Elevation from Natural Terrain

Grading should minimize deviation from natural terrain to resemble natural hillside form. Although projects which balance cut and fill on site reduce construction traffic, the final appearance of the grading area may be compromised by meeting this objective. Fills and cuts should not be made solely to avoid having to import or export earth.



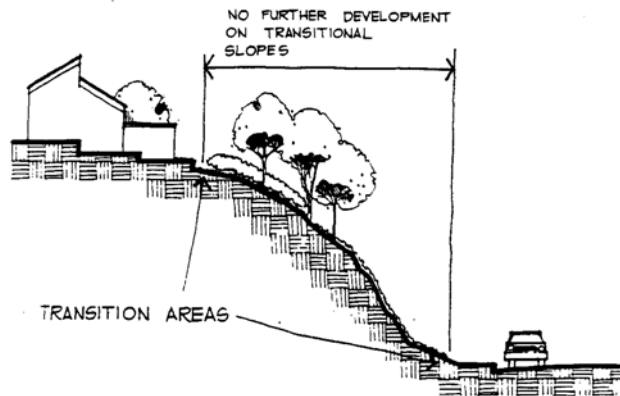
### Variation in Slope Face

Grading should provide for variable steepness and undulating slope faces to resemble natural terrain.



## Transitional Slopes

Retain smooth flow of ground form in both vertical and horizontal directions. Convex-shaped top of slopes and concave-shaped toe of slopes address vertical transition. Transitional slopes should not be covered up by building additions in the future. Horizontal transitions would generally be concave-shaped for fill slopes and convex-shaped for cut slopes. Transitions should use a minimum 25-foot radius curve.



### B. Site Drainage

In order to protect hillside houses from landslides and water damage, drainage devices are necessary to convey storm water quickly away from manufactured slopes and houses. Quite often, however, the drainage devices are the most noticeable part of a manufactured slope, with wide benches and centrally located down drains. The objectives of the guidelines are to minimize the visibility of the drainage devices, and, where visible, make them appear more natural while ensuring that houses and streets are protected from a storm water hazards.

#### Use and Location and Drainage Devices

Drainage devices should be designed of a size, type, and location to accommodate site drainage safely and without property damage on or off-site. Drainage devices, including debris basins and interceptor drains, should be hidden from public view where possible. Down drains should be located at the edges of artificial slopes where possible to avoid an artificial appearance in the center of a manufactured slope.

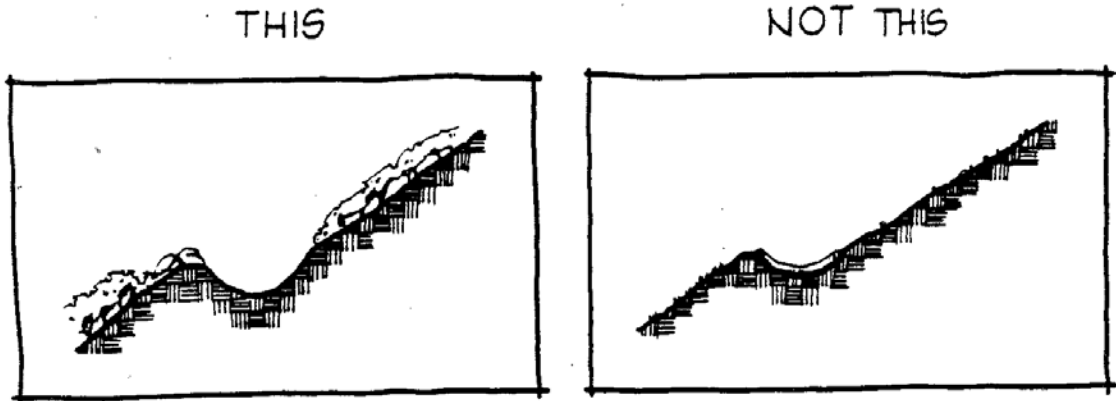
Nuisance drainage, such as drainage from the bottom of fill slope must be contained and not allowed to cross property lines, sidewalks, or streets as surface drainage.

Additional runoff from development should be minimized by providing for percolation opportunities within the project site. Porous materials such as modular concrete pavers etc., should be utilized wherever possible. Natural drainage channels should be retained where possible.

#### Materials

Drainage devices should be colored to match natural terrain. Native rocks could be used to “naturalize” drainage devices, particularly in the down drains.

Vegetation should be clustered to screen and blend visible drainage devices with natural background. Any fencing required for safety around drainage channels or debris basins must be properly screened with landscaping.



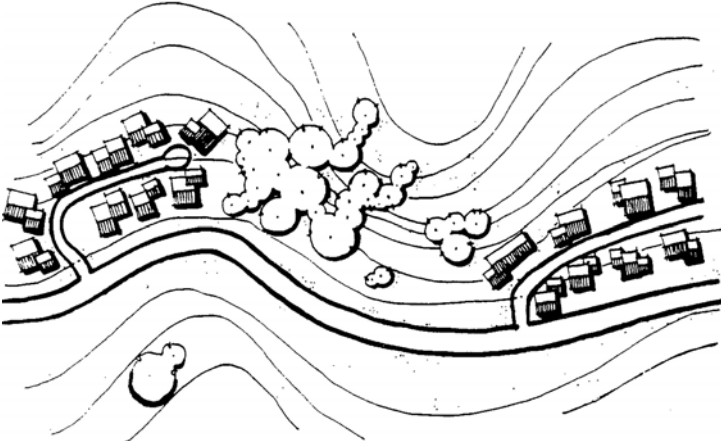
**C. Subdivision Design**

Hillside subdivision offers greater opportunities to minimize visual impacts than offered by individual lot development, which is typically constrained by small lot boundaries. Sensitive areas can be preserved by clustering development and locating infrastructure in less sensitive areas. The flexibility of design allowed through the subdivision process should be used to create roads, lots and pads to fit the terrain, rather than alter the terrain to fit a preconceived development. The following design criteria supplement those found in Chapter 28 of the Glendale Municipal Code.

**DENSITY**

Steep slopes are generally more visible than gentle slopes. In addition, development on steep slopes usually requires a substantial amount of grading. In order to compensate for these factors, overall development density should decrease as the slope increases. See Title 30, Glendale Municipal Code for specific density standards.

**CLUSTERING OF LOTS**

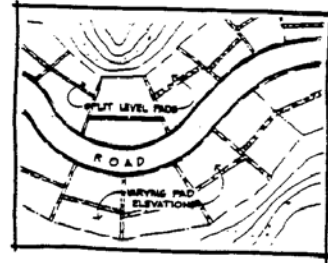
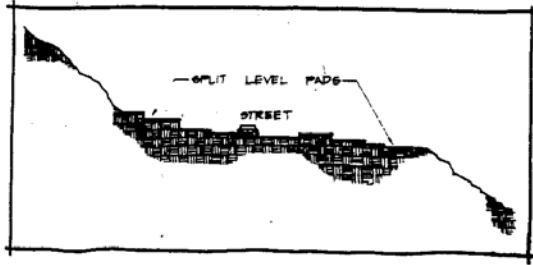


Residential lots should be clustered to minimize graded area and maximize natural open space. Clustering must be sensitive to surrounding development; the effective density in any one area of a subdivision should not exceed 1.5 units per acre where slopes exceed 30 percent.

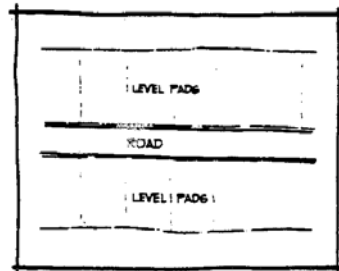
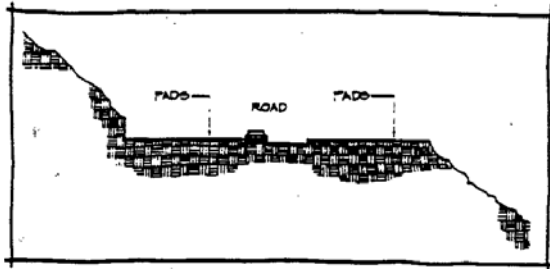
### BUILDING PADS

Graded pad areas should not be excessive to minimize terrain modification. Consideration should be given to only grade garage areas, driveway, and limited yard space to minimize grading. In addition, split-level pads could be used on slopes to reduce required grading. Lots without pads should be considered as an option to minimize grading. A combination of various lot types would provide for a range of housing types, however, the design must consider the relationship of the houses to each after the pads are graded.

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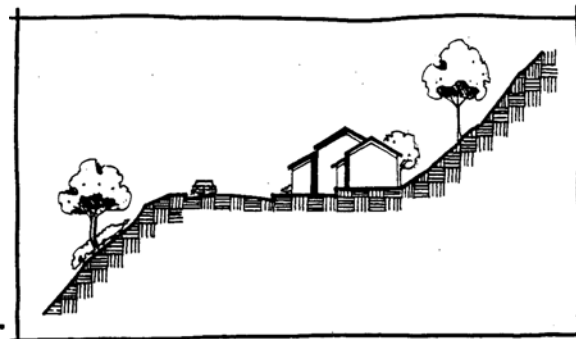
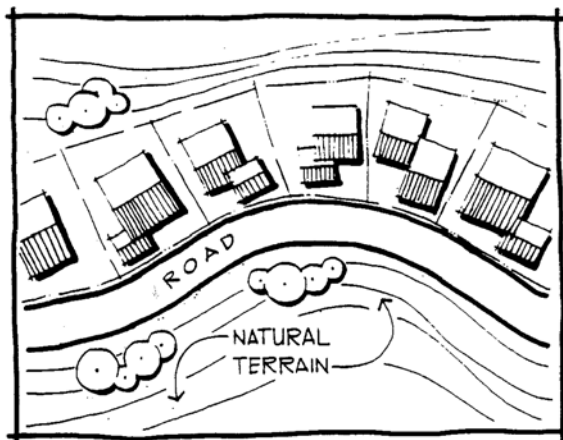


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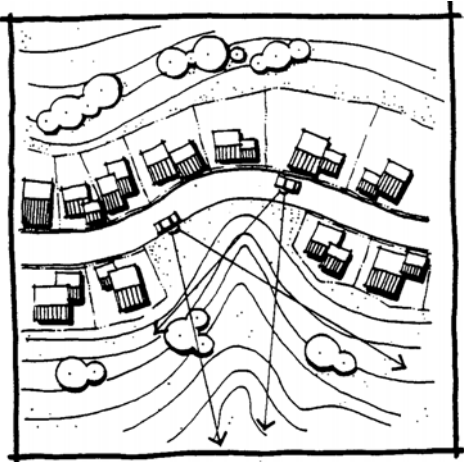
### BUILDING PADS (con)

Single-loaded streets (streets with lots and building pads on one side only) are encouraged on steep terrain where grading can be reduced.





**OPEN SPACE PRESERVATION**



Grading should avoid prominent natural features such as ridgelines, riparian areas, rock outcropping and groves of native trees.

The areas to be graded should be minimized preserving the natural hillside appearance. Grading should only occur where necessary to develop a site. While balanced grading is desirable in order to minimize construction traffic, cut and fill slopes should not be created just to avoid import/export.

Grading of highly visible areas, such as public vistas and areas adjacent to roadways should have greatest attention placed on landform grading techniques.

Sensitive natural land in a subdivision should be retained as ungraded open space, to preserve the natural characteristics of the terrain. Open space lots should be used to protect sensitive sources such as ridges, riparian areas, rock outcroppings and native trees. These preserved areas should be designated as separate lots from the residential lots to prevent future encroachment.

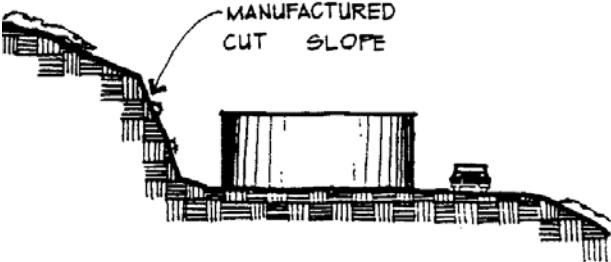
Open space lots should be dimensioned as to an area and width that clearly allows its identity as open space, and should be left entirely in a natural state.

Open space lots could be also used to allow for view corridors from the public right-of-way, and to provide fire buffer zones.

**UTILITY SITING**

Wherever possible, utilities should be located underground, in new subdivisions. Utilities which are exposed, such as pump stations and water tanks, should be properly screened and designed to minimize visibility.

Partially subterranean tank built into hillside screened with tall vegetation. Access road designed to minimize visibility by going behind most visible part of hillside.



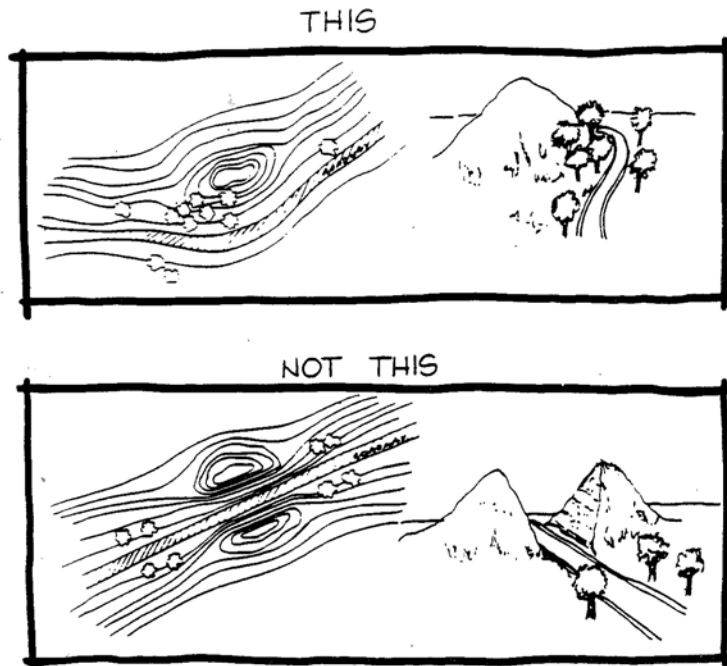
Above ground tank set back from cut slope with no screening. Highly visible access road.

### D. Roadways

The roadway design criteria primarily apply to new subdivisions, where the location of the public right-of-way has not been determined. However, some of the following criteria also apply to the improvements or widening of existing roadways.

#### ROADWAY LOCATION

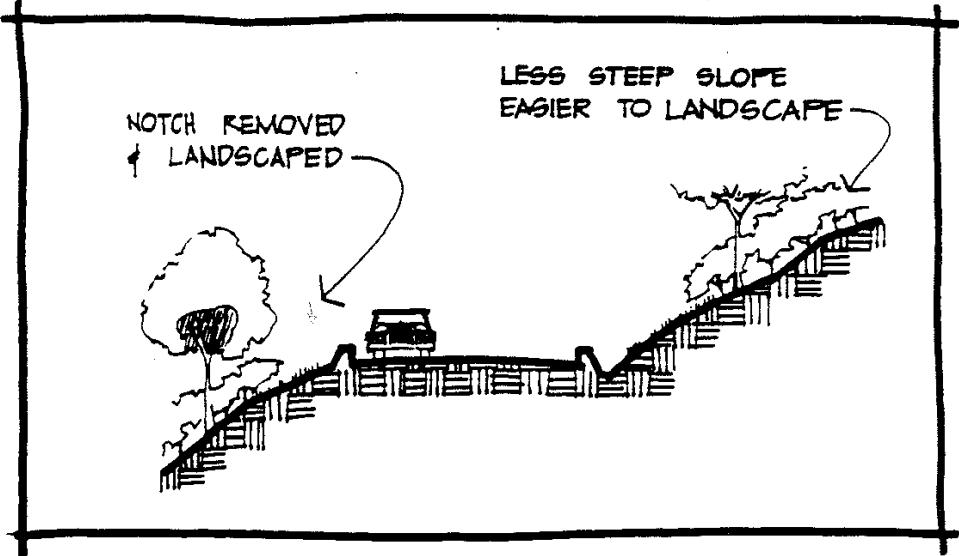
Roadways should follow natural contours instead of being cut through landforms. Natural features, such as ridges, rock outcroppings, groves of trees, or riparian areas should be preserved.



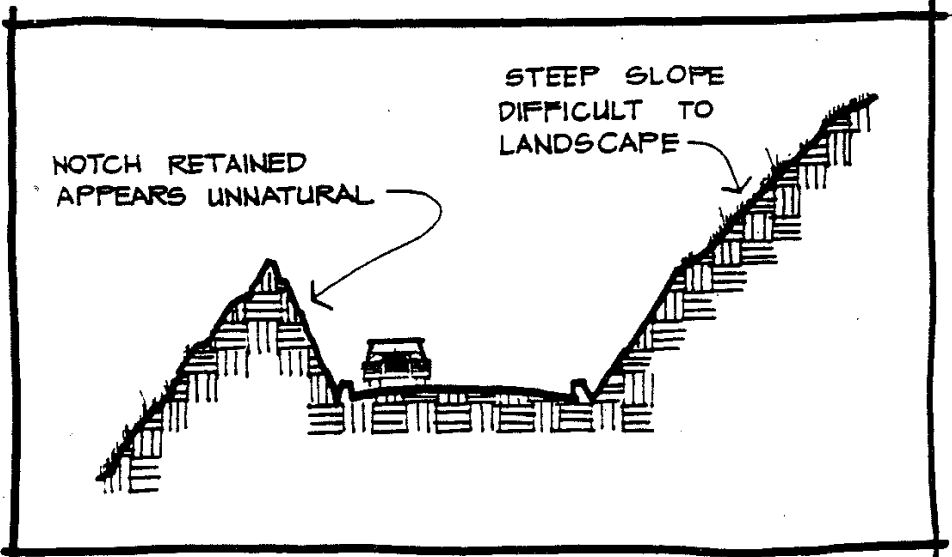
**GRADING FOR ROADWAYS**

Where roadway cuts are necessary, they should be made as unobtrusive and as natural appearing as possible.

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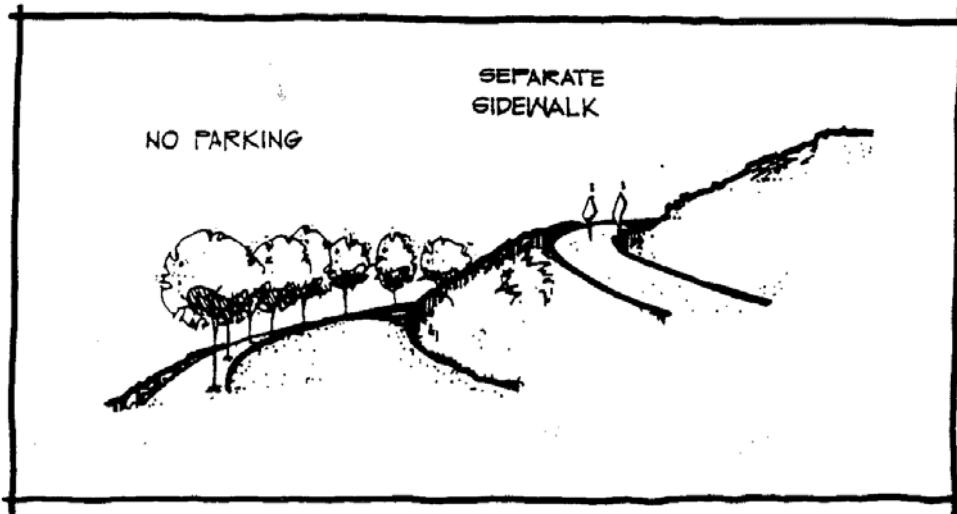


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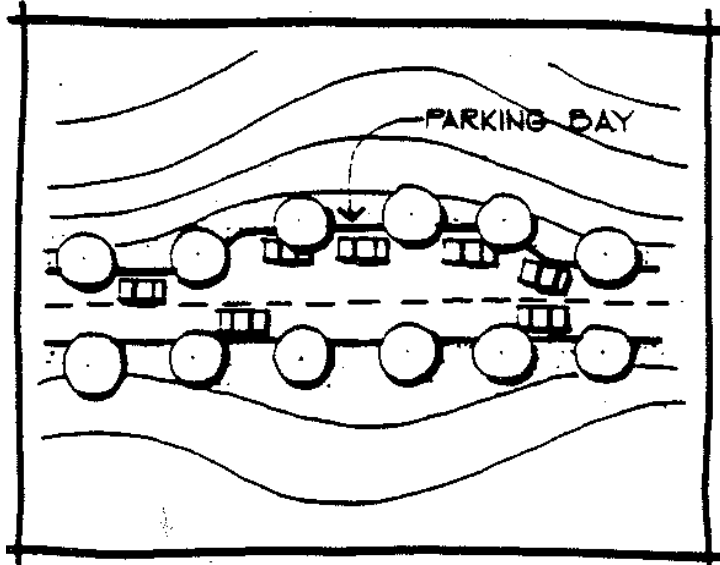
### SPLIT ROADWAYS

Split roadways involve either a separation of opposing traffic by a landscaped median, or a separation of walkways from the roadway grade. On gently sloped areas, a split roadway with a landscaped median could minimize graded appearance. Split roadways could also be used to preserve trees, rocks or other natural features. In addition, split roadways could be designed in lieu of drainage benches on a manufactured slope. One-way loop roads should be considered when grading can be reduced and only a small number of homes are accessed from the one-way road. Split roadways and one-way roads must be of a minimum width to allow for safe passage of emergency vehicles.

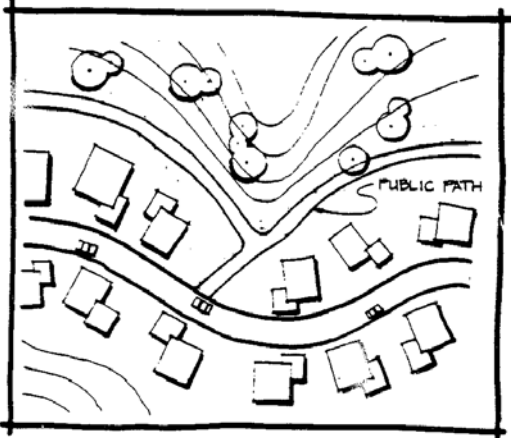


### PARKING BAYS

On street parking may be provided in parking bays rather than as continuous parallel parking along the street in order to minimize grading.



**ACCESS TO NATURAL AREAS**



Public access should be provided to public open space, scenic view points, and canyons through a sidewalk and unpaved travel system. Depending on the anticipated maintenance needs, maintenance access also should be provided.

**E. Retaining walls, freestanding walls and fences**

Retaining walls are effective in reducing grading and preserving natural slopes around development. However, excessive use of retaining walls could depreciate the nature hillside character as much as large manufactured slopes.

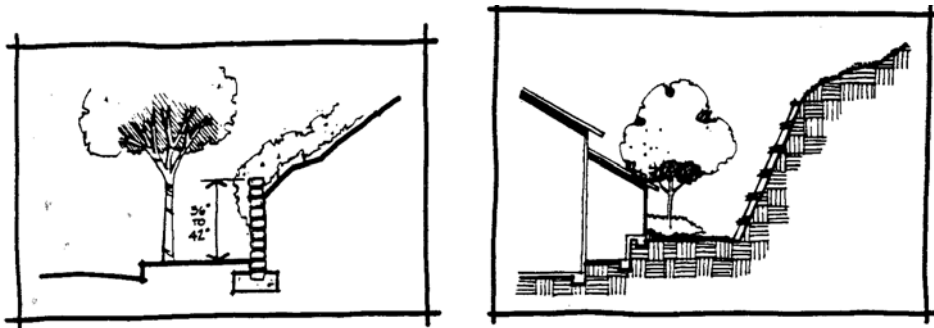
A 36” to 42” high fence or wall may be desirable above certain steep slopes next to walkways or areas where pedestrians are likely to walk to reduce the risk of falling. In addition, walls and fences are used for privacy, security, and marking property boundaries. They can be an attractive part of the landscape, but should not be dominating feature.

### USE OF RETAINING WALLS AND CRIBWALLS

Retaining walls should be encouraged where highly visible manufactured slopes could be reduced or eliminated, however, retaining walls should not be covered so as to give a highly artificial appearance to the project site.

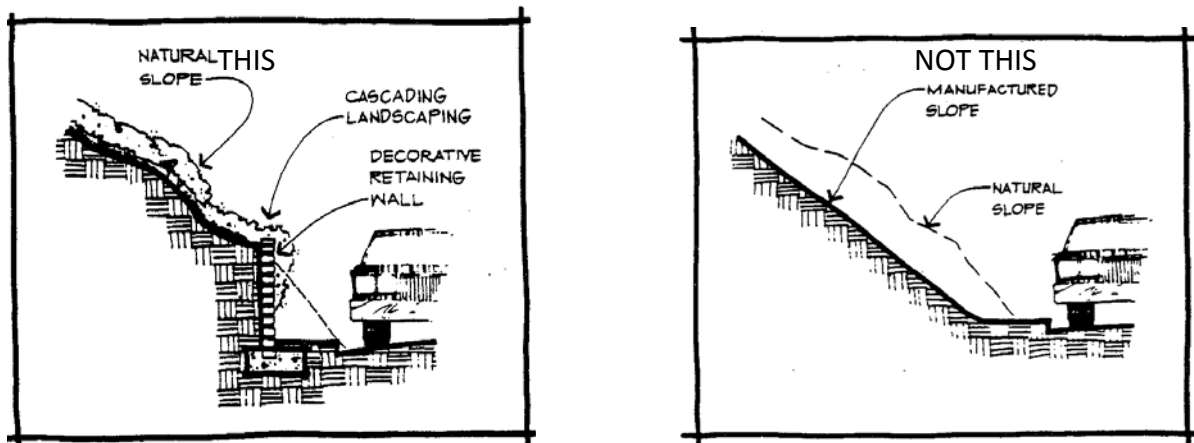
Retaining walls can be integrated into garage walls on upslope lots to reduce grading and minimize visibility of the walls.

Landscaped Cribwalls are a good alternative for block walls in highly visible areas. Landscaping should include ground covers of different colors and textures that becomes self sufficient once established. Cribwalls in general can be higher than block walls without causing the same visual prominence.



### USE OF RETAINING WALLS FOR ROADWAYS

Small retaining walls or landscaped Cribwalls should be used adjacent to roadways to reduce grading and be visually unobtrusive. Tall retaining walls adjacent to roadways are difficult to be screen effectively. Retaining walls which have their toe at street level may be 5 feet high, or 7 feet high if faced with a decorative masonry veneer. A maximum of 2 successive walls, separated by 5 horizontal feet may be used upslope of a roadway. The slope between the walls may not exceed 2:1 horizontal to vertical steepness.



**HEIGHT AND LENGTH OF RETAINING WALLS**

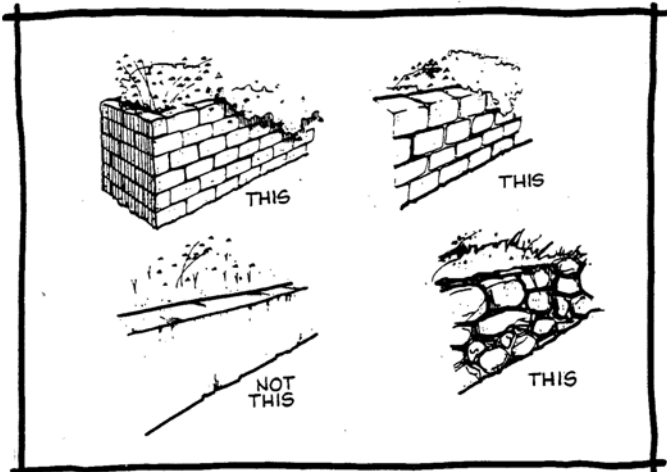
Retaining walls should not be so high as to be dominating a visual feature. Retaining walls upslope of a house in general could be higher than the walls down slope of a house, since structure hides the wall.

Successive retaining walls should be limited in total height and spaced to avoid the appearance of a single massive wall. The area between successive retaining walls should be sloped to provide visual separation, but not so steep as to prevent proper landscaping.

Retaining walls should not exceed 100 feet in length unless they undulate, or are broken up by buttresses, pilasters, or landscaping.

**RETAINING WALLS MATERIALS**

All retaining walls which are visible to surrounding properties or the public street should be constructed with textured decorative masonry block with colored grout or with natural earth-tone materials (i.e. rock veneer). All walls must be landscaped to visually blend with the natural hillside vegetated crib walls should be explored in highly visible areas.



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