ATTACHMENT 2 –
EXHIBIT “B"

REDLINE

ORDINANCE NO. 26-__

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF MURRIETA, CALIFORNIA, AMENDING TITLE 16 OF THE MURRIETA MUNICIPAL CODE TO AMEND THE CITY'S DEVELOPMENT CODE CHAPTERS 16.08, 16.14, 16.18, 16.22, 16.24, AND 16.28. RELATED TO HILLSIDE DEVELOPMENT STANDARDS

Summary: This Ordinance updates the City's existing hillside regulations to promote and guide the orderly development of hillside areas through standards, which are specifically designed to address the unique challenges of such terrain. These updated regulations include, but are not limited to, provisions related to the measurement of building height on a slope with new graphics, clarification of applicability of a hillside area, the basis for a slope determination, when a hillside development permit is required, undeveloped and developed review criteria and applicability, updated definitions, hillside application materials, review procedures, slope grading techniques, the placement and height of retaining walls in hillside areas, site access, aesthetic and landscape treatments, exceptions to a permit, and incorporation of new hillside overlay into the municipal code.

WHEREAS, the City of Murrieta ("City") proposes an amendment to the City's Development Code for the purpose of revising and updating Chapters 16.08, 16.14, 16.18, 16.22, 16.24, and 16.28 ("Development Code Amendment"); and

WHEREAS, with an effective date of December 18th, 1997, the City Council, after extensive public input, adopted Ordinance No. 182-97, which is generally known as the City of Murrieta Development Code, which contained provisions for hillside development regulations; and

WHEREAS, the purpose of this Ordinance is to promote and encourage the orderly development of hillside areas of the City by the application of regulations and requirements established to meet the particular problems associated with the development of hillside areas, including, but not limited to clarification of where hillside areas apply and related review processes, slope grading techniques, placement and height of structures, retaining walls, access, and atheistic treatments; and

WHEREAS, it was discovered by public input and verified by staff that these provisions are being applied Citywide, whereas the original intention was for these provisions to be applied to properties within the designated Hillside Overlay; and

WHEREAS, DCA-2021-2396 includes updates in order to provide consistency and eliminate errors within the sections of the City's Development Code as identified for hillside areas and related development criteria; and

WHEREAS, on March 29, 2022, the City Council directed staff to review the hillside development standards and explained to staff that they were never meant to apply on a citywide basis; and

WHEREAS, on December 14th, 2022, the City held a first public workshop. This item was continued from that meeting and re-noticed for the January 25, 2023, meeting. No report or presentation was provided; and

WHEREAS, on January 25th, 2023, the City held a second public workshop at its Planning Commission meeting to provide and receive input from local residents and the Commission concerning hillside development standards in the City. Areas that were covered were inclusive of existing and proposed Hillside Overlay applicability, height allowances for structures, height measurement criteria, hillside slope applicability, average slope calculation, Prominent Ridgeline Overlay, and retaining wall criteria. The other items presented by staff were potential techniques to improve the readability of the existing Murrieta Municipal Code (MMC), examples of graphic exhibits that could be incorporated, highlights of areas to resolve code inconsistencies, ways to incorporate best practices, and suggestions from staff on how to simplify the standards to make them more user-friendly to both staff and applicants; and

WHEREAS, on April 11th, 2023, staff hosted a presentation on the existing and proposed hillside standards. Staff held the workshop to obtain additional feedback from the community on the proposed hillside development standards. This additional outreach was conducted per direction from the prior Planning Commission for further community input and to provide transparency. Areas that were covered were inclusive of existing and proposed Hillside Overlay applicability, height allowances for structures, height measurement criteria, hillside slope applicability, average slope calculation, Prominent Ridgeline Overlay, and retaining wall criteria. There was time provided for questions/answers at the end of the presentation for feedback on the proposed updates from the public; and

WHEREAS, on June 28th, 2023, the City of Murrieta Planning Commission held a duly noticed public hearing on the proposed Development Code Amendment, at which the staff report was presented as well as written comments from the public regarding the need for the proposed code amendment and providing evidence in the record to support the findings required by the Murrieta Development Code Section 16.58.080; and

WHEREAS, on August 15, 2023, the City Council hosted its first workshop on this item. The City Council requested additional information. Council members and staff discussed key standards for retaining wall heights, specifically discussing a 6-foot baseline and the balance between aesthetic landscaping and mandatory fire safety fuel modification zones. The session aimed to replace subjective guidelines with objective criteria for building on slopes, ensuring that new developments preserve the city's visual ridgelines while providing a clearer, more predictable path for project approvals. The workshop was continued to a future meeting date; and

WHEREAS, on March 5, 2024, the City Council hosted a second workshop on this item. The discussion centered on a potential review process for retaining walls, clarifying building

height measurements on sloped terrain, and ensuring the "Hillside Overlay" maps accurately reflect local topography to avoid unnecessary burdens on flat-land homeowners. Crucially, the Council worked to harmonize aesthetic screening requirements with mandatory state fire safety and fuel modification mandates, prioritizing the protection of prominent ridgelines while ensuring the code aligns with current California law. Due to additional time needed for the discussion and feedback, the workshop was continued for a second time; and

WHEREAS, on June 17, 2025, the City Council hosted a third workshop on this item. The direction/feedback from the Council was that detailed examples of standards from other localities and more of them were needed in order to assist the Council with moving forward; and

WHEREAS, on October 21, 2025, the City Council held its fourth workshop on this item. The discussion centered on the following areas, where the Council reached consensus on key Focus Topics with the Applicability of Standards; Identifying The City's Hillside Areas: 20 Percent Slope Versus 25 Percent; 25 Percent Slope Criteria; Specific Plans; and the use of Geographic Info. Systems (GIS) And Average Slope Formula; and

WHEREAS, on November 18, 2025, the City Council conducted its fifth workshop on this item, during which several key policy directions and considerations were identified, including, but not limited to, the following: that updates to retaining wall regulations should be addressed on a citywide basis rather than limited to Hillside Areas; that standards should provide both flexibility through defined options and sufficient specificity, particularly with respect to retaining wall design; that retaining wall design standards should be implemented citywide; that color palettes for retaining walls should generally consist of muted tones, with specific shades or blends established in advance to ensure a consistent and desirable aesthetic; that earthtone colors may be appropriate for hillside structures; that retaining walls exceeding six feet in height may, in certain circumstances, be excessive on a citywide basis; that tiered retaining walls incorporating landscaping are a preferred design feature; that Keystone-style walls with integrated landscaping are also desirable; that landscaping is a priority consideration for the Council, including the establishment of larger plant sizes earlier in the development process; that additional clarification from the Fire Department is necessary regarding planting requirements within Fuel Modification Plans; and that distinctions between rural residential and tract home front-yard setbacks should be more clearly defined; and,

WHEREAS, on February 3, 2026, the City Council held its sixth and final workshop on the topic. The Murrieta City Council discussed key topics, including retaining walls, landscaping standards, fire severity zones, distinctions between developed and undeveloped properties, and the relationship between hillside and citywide standards. Public input raised concerns about the visual and regulatory impacts of retaining walls, tree removal credits, definitions of undisturbed land, conditions of approval, and broader issues such as Senate Bill 9 and insurance implications. Following that discussion, the Council reached consensus to provide direction on specific retaining wall types (including geogrid, CMU, and keystone walls) for hillside areas, suggested requiring earlier installation of larger landscaping, and that a separate ordinance was needed on a city-wide basis as it relates to retaining walls, along with direction to staff that the definitions of developed and undeveloped land for hillside areas need to be clearly defined.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF MURRIETA, CALIFORNIA DOES HEREBY ORDAIN AS FOLLOWS:

SECTION 1. Section 16.08.020 (Residential Districts General Development Standards), Table 16.08-03 (Residential (Single-Family) Zones General Development Standards) of the Murrieta Municipal Code is hereby amended in its entirety to read as follows:
“

TABLE 16.08-3
RESIDENTIAL (SINGLE-FAMILY) ZONES
GENERAL DEVELOPMENT STANDARDS

Development Feature	**RR**	**ER-1**	**ER-2**	**ER-3**	**SF-1**	**SF-2**[3]
Minimum Parcel Size	2.5 acres[2]	1.0 acres	0.5 acres[1]	10,000 sq. ft.	7,200 sq. ft.	4,350 sq. ft.
Density Range	0.1 - 0.4 dus/acre	0.4 - 1.0 dus/acre	1.0 - 2.0 dus/acre	2.0 - 3.0 dus/acre	2.1 - 5.0 dus/acre	5.1 - 10.0 dus/acre
Minimum Parcel Width	100 feet	100 feet	100 feet	70 feet	70 feet	55 feet, 45 feet for parcels less than 5,000 square feet. This parcel width shall be increased to a 50 foot width for every fifth lot on a non-cul-d e-sac parcel street frontage.
Minimum Livable Area	1,000 sq. ft.	1,000 sq. ft.	1,000 sq. ft.	1,000 sq. ft.	1,000 sq. ft.	1,000 sq. ft.
Setbacks						
Front	20 feet	20 feet	20 feet	20 feet	20 feet	20 feet
Interior	20 feet	20 feet	20 feet	10 feet	10 feet	7.5 feet per side. For parcels less than 5,000 sq. ft. = A minimum of an average of 12 feet overall for the combination on of both interior sides with no side setback of less than 5 feet.
Street Side	20 feet	20 feet	20 feet	20 feet	20 feet	10 feet
Rear	20 feet	20 feet	20 feet	20 feet	20 feet	20 feet
Accessory Structures	Consistent with Section 16.44.150					

Maximum Parcel Coverage	25%	25%	35%	35%	35% for two- story; 45% for single story	50%
Maximum Building Height	40 feet(4)	40 feet(4)	40 feet(4)	35 feet(4)	35 feet(4)	35 feet(4)
Minimum On-site Landscaping	25% of front yard area					
Small Attached Unit Configuration	Refer to Section 16.16.020 "Planned Residential Development General Standards" for development standards and project review and 16.16.030 "Planned Residential Development Design Standards and Parameters."					

Notes:

(1) A forty (40) foot wide buffer shall be provided along Washington Avenue (from Guava to Elm Street) in the public right-of-way. Landscaping to include six-foot high block wall, pedestrian trails and/or sidewalk, and landscaping berms to act as natural buffers. New residential projects will be allowed to access from Washington Avenue with residential lots abutting Washington Avenue are prohibited from taking direct access from Washington Avenue.

(2) The minimum parcel area for properties zoned RR can include adjacent area to the centerline of the public street right-of-way.

(3) For projects proposing a clustering configuration with detached single-family homes or within small attached unit configurations, please see 16.16.020 "Planned Residential Development General Standards" and 16.16.030 "Planned Residential Development Design Standards and Parameters" for requirements.

(4) For structures located within a Hillside Area, see the maximum height criteria as provided within Section 16.24 (Hillside Development) and applicability.

"

SECTION 2. Section 16.08.020 (Residential Districts General Development Standards), Table 16.08-04 (Residential (Multi-Family) Zones General Development Standards) of the Murrieta Municipal Code is hereby amended in its entirety to read as follows:
“

TABLE 16.08-4 RESIDENTIAL (MULTI-FAMILY) ZONES GENERAL DEVELOPMENT STANDARDS				
Development Feature	**MF-1[5]**	**MF-2**	**MF-3**	**MF-4**
Minimum Parcel Size	5 acres	5 acres	5 acres	5 acres
Minimum Parcel Width	100 feet	100 feet	100 feet	100 feet
Density Range	10.1 - 15 du/acre	15.1 - 18.0 du/acre	18.1-29.0 du-acre	Min. 30 du/acre
Minimum Livable Area	500 sq. ft.	500 sq. ft.	500 sq. ft.	500 sq. ft.
Setbacks				
Street	10 feet	10 feet	10 feet	10 feet
Interior	10 feet	10 feet	10 feet	10 feet
Maximum Parcel Coverage	35%	35%	50%	None
Maximum Height Limit	50 feet	50 feet	60 feet	100 feet
Open Space (per dwelling unit)				
Private Open Space	60 sq. ft./upper floor 100 sq. ft./ground floor	60 sq. ft./upper floor 100 sq. ft./ground floor	All units 50 sq. ft.[2]	All units 50 sq. ft.[2]
Common Open Space	200 sq. ft.	200 sq. ft.	150 sq. ft.[3]	150 sq. ft.[3]
Recreational Amenities			For projects containing 25 or more dwelling units, provide one recreational amenity for each 30 dwelling units or fraction thereof[4]	For projects containing 25 or more dwelling units, provide one recreational amenity for each 30 dwelling units or fraction thereof[4]
Minimum On-site Landscaping	10% of the site area			

Notes:

(1) When adjacent to existing single-family residential use or zone, the building setback from the nearest property line shall be 10 feet for the first 25 feet in height, above 25 feet in height the setback shall be 20 feet, and above 50 feet, the setback shall be 30 feet.

(2) For stand-alone multi-family residential projects or as part of a mixed-use development, each residential unit shall be provided with at least one area of private open space accessible directly from

the living area of the unit, in the form of fenced yard or patio, a deck or balcony at a minimum area of 50 square feet. The minimum dimension, width or depth of a balcony shall be 5 feet.

(3) All common open space shall be conveniently located and accessible to all dwelling units on the site. Common open space may include landscaping, pedestrian paths and recreational amenities. In projects containing fewer than 10 units, the common open space shall have a minimum width and depth of 10 feet. In projects containing 10 or more or units, the minimum width and depth shall be 20 feet.

(4) One common recreational amenity shall be provided for each 30 units or fraction thereof. The following listed amenities satisfy the above recreational facilities requirements. Recognizing that certain facilities serve more people than others, have a wider interest or appeal, and/or occupy more area, specified items may be counted as two amenities, as noted. In all cases, each square foot of land area devoted to a recreational amenity shall be credited as common open space on a 1:1 basis.

a. Clubhouse (two)
b. Swimming Pool (two)
c. Tennis, Basketball or Racquetball court
d. Weightlifting facility
e. Children's playground equipment
f. Sauna or Jacuzzi
g. Day Care Facility (two)
h. Other recreational amenities deemed adequate by the director.

(5) For projects proposing a clustering configuration with detached single-family homes or within small attached unit configurations, please see 16.16.020 “Planned Residential Development General Standards” and 16.16.030 “Planned Residential Development Design Standards and Parameters” for requirements.

(6) For structures located within a Hillside Area, see the maximum height criteria as provided within Section 16.24 (Hillside Development) and applicability.

“

SECTION 3. Section 16.14.010 (Purpose), Table 16.14-2 (Special Purpose Districts General Development Standards) of the Murrieta Municipal Code is hereby amended in its entirety to read as follows:

“

TABLE 16.14-2 SPECIAL PURPOSE DISTRICTS GENERAL DEVELOPMENT STANDARDS			
Development Feature	**P&R**	**C&I**	**OS**
Setbacks			
Street	25 feet	25 feet	25 feet
Interior	20 feet	20 feet	20 feet
From Abutting Residential District	15 feet		
Accessory Structures	Same as Primary Structure		
Maximum Height Limit(1)	35 feet(1)	50 feet(1)	35 feet(1)
(1) For structures located within a Hillside Area, see the maximum height criteria as provided within Section 16.24 (Hillside Development) and applicability.			

“

SECTION 4. Section 16.18.080 (Height Measurement and Height Limit Exceptions) of the Murrieta Municipal Code is hereby amended in its entirety to read as follows:

"All structures shall meet the following standards relating to height, except for fences and walls, which shall comply with Chapter 16.22 (Fences, Hedges, and Walls).

A. Maximum Height. The height of structures shall not exceed the standard established by the applicable zoning district in Article II (Zoning Districts and Allowable Land Uses) or for structures within a Hillside Area under Section 16.24.020.A. In addition, the maximum height for structures on a specific parcel shall be measured as follows:

1. Establishing the high point and low point on the property as reference grade points as follows:

a. A measurement is taken from the lower of existing or proposed grade, 5 feet away from the lowest grade point around the structure in accordance with Figure 16.18-1. This point shall be the low reference grade point. The highest point anywhere on the structure may not exceed the elevation of that low grade point by more than the allowable height plus the grade differential between the low point of structure and high point of structure (excluding items as detailed under Section 16.18.080(B) (Exceptions to Height Limits)), but in such case where the actual grade differential exceeds 10 feet, only a maximum of 10 feet may be added to the maximum allowable height per the zone. The measurement is the difference in elevation between the highest and the lowest adjacent ground elevation surrounding the building.

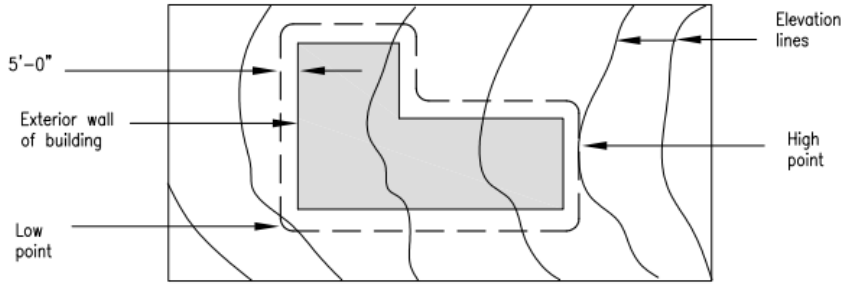


FIGURE 16.18-1
MEASUREMENT LOCATIONS

b. If the difference in elevation is 10 feet or less, the reference grade point is established at the highest adjacent ground elevation. See Figure 16.18-2. If the difference in elevation is greater than 10 feet, the reference grade point is established at 10 feet above the lowest adjacent ground elevation. See Figure 16.18-3. For stepped or terraced buildings, the building height is the overall height as illustrated in Figures 16.18-4 and Figure 16.18-5.

Height Measurement on a Slope

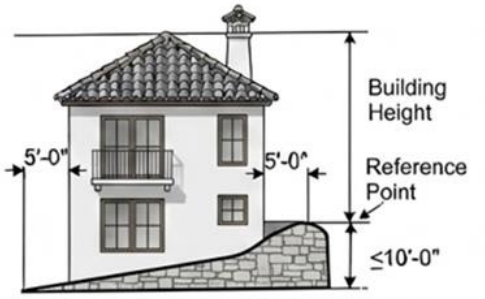


Figure 16.18-2 = ≤10'-0"

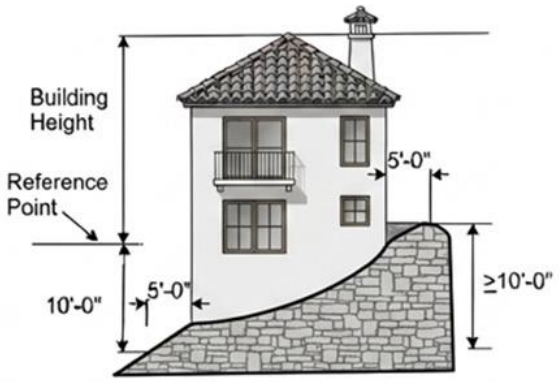


Figure 16.18-3 = ≥10'-0"

Figure 16.18-4 - Stepped Building = ≤10'-0"

Figure 16.18-5 - Stepped Building = ≥10'-0"

FIGURE(S) 16.18-2, -3, -4. -5
MEASUREMENT CRITERIA

c. For a project with a proposed pad configuration, the height of the structure measured by the vertical distance from the finished grade to the height of the roof line. See Figure 16.18-6.

Height Measurement at a Pad Location

FIGURE 16.18-6

MEASUREMENT WITH PAD CONFIGURATION

B. Exceptions to Height Limits. Exceptions to the height limits identified in this development code shall apply in the following manner:

1. Roof-mounted Features. Roof-mounted features including chimneys, cupolas, clock towers, elevator equipment rooms, equipment enclosures, and similar architectural features shall be allowed, up to a maximum of fifteen (15) feet above the allowed structure height. The total square footage of all structures above the heights allowed in the zoning districts shall not occupy more than twenty-five (25) percent of the total roof area of the structure. Greater height or area coverage may be allowed subject to the approval of a minor conditional use permit in compliance with Chapter 16.52.

2. Parapet Walls. Fire or parapet walls may extend up to four feet above the allowable height limit of the structure.

3. Public Assembly, Hotels, Class "A" Office and Public Structures. Places of public assembly including churches, schools, assembly halls, Class "A" office buildings greater than three (3) stories, hotels and other similar structures may exceed the established height limit by one (1) foot for every two (2) feet that the minimum required front, rear and side yard setbacks are increased. The increase in the front, rear and side yard setbacks is determined by averaging the total of the increased building setbacks at the closest point on all sides. The maximum additional height allowed is thirty (30) feet above the height limit established for the applicable zoning district. This exception shall not apply when the site is adjacent to single-family zoned property. This exception may be used in conjunction with the height exception for rooftop equipment.

4. Telecommunications Facilities. Telecommunication facilities, including antennae, poles, towers, and necessary mechanical appurtenances, may be authorized to exceed the height limit established for the applicable zoning district, subject to the approval of a conditional use permit in compliance with Chapter 16.52.

5. Basement. A basement is defined as a story that has its floor surface below the adjoining finished grade as both conditioned and unconditioned space per the California Building and Residential Codes."
SECTION 5. Section 16.22.050 (Measurement of Fence or Wall Height) of the Murrieta Municipal Code is hereby amended in its entirety to read as follows:

"16.22.050 Measurement of Fence or Wall Height.

Where there is a difference in the ground level between two adjacent parcels, the height of a fence or wall constructed along the property line shall be determined by using the finish grade of the highest contiguous parcel."

SECTION 6. Section 16.22.060 (Walls Required Between Different Zoning Districts) of the Murrieta Municipal Code is hereby amended in its entirety to read as follows:

"16.22.060 Walls Required Between Different Zoning Districts.

Walls shall be provided and maintained between different zoning districts as follows:

A. Where a nonresidential or multi-family zoning district abuts a residential zoning district, a solid masonry wall of six feet in height shall be constructed on the zone boundary line. Walls may be constructed higher than six feet if the viewshed is not impeded and is subject to the approval of the Director;

B. Where a BP or IG zoning district abuts another zoning district, a solid masonry wall six feet in height shall be constructed on the zone boundary line;

C. Walls shall be of solid masonry construction and shall be of a decorative design when in view of public rights-of-way subject to approval of the director; and

D. The director may waive or modify requirements for walls between different zoning districts where a solid masonry wall already exists on the contiguous property if the following findings can be made:

1. The existing wall meets or can be modified to conform to the intent of this chapter;

2. Suitable landscaping can be installed adjacent to the existing wall to supplement and enhance the desired physical separation;

3. The existing wall can be protected to prevent vehicle damage, if necessary, and

4. Concurrence of the adjacent property owner can be obtained, to modify the existing wall to meet the requirements of this chapter."

SECTION 7. Chapter 16.24 (Hillside Development) is hereby amended in its entirety to read as follows:

"16.24.010 Purpose.

The purpose of this chapter is to provide regulations for the development of areas in the *City* that, because of their topography, require special consideration to ensure that they are developed in a way that substantially maintains their natural character and environmental and aesthetic values to implement the *City's* General Plan, and to provide for the safety, health, and welfare of the public by:

A. Providing guidelines and standards for development in visually sensitive *Hillside Areas* to minimize the adverse impacts of *grading* and to promote the goals and objectives of the *City's* General Plan;

B. Maintaining an environmental equilibrium consistent with existing vegetation, wildlife, soils, geology, *slopes*, and drainage patterns, and to preserve natural topography and scenic character, including canyons, creeks, knolls, rock outcrops, and ridgelines whenever feasible;

C. Encouraging development proposals that feature water conservation and aquifer recharge techniques;

D. Encouraging development proposals that are sensitive to fire, flood, slide, *erosion*, pollution, or other safety hazards;

E. Encouraging sensitive development through flexible design and innovative arrangement of building sites by utilizing variable lot sizes, clustering, and setback variations;

F. Utilizing nontraditional design standards for streets and hillside *grading* where development quality and public safety are not affected;

G. Encouraging developments that incorporate desirable existing features of land (e.g., natural vegetation, viewsheds, topographic features);

H. Protecting significant natural areas for ecologic purposes, educational, and other scientific study purposes; 1. Encouraging the use of drought-tolerant plant material to protect *slopes* from soil *erosion* and slippage, preserve natural watershed, minimize fire hazard, and minimize the scarring and deformation of the natural landscape;

I. Limiting the impact of *cut slopes* on adjacent developed and undeveloped properties; and

J. Providing for appropriate intensity of development (e.g., density, massing, etc.) through a variety of design techniques to ensure that development intensity decreases as *slopes* become steeper (e.g., lot sizes appropriate for steeper topography and separation of structures sufficient to preserve a viewshed).

16.24.020 Applicability.

A. Location Consideration for Analysis. Notwithstanding any other provisions of this Code, the standards contained in this chapter apply to uses and structures within HIllside Areas that have a slope twenty-five (25) percent or greater and as designated within the boundaries of a Hillside Overlay Map. Additionally, please refer to Table 16.24-1 (Undeveloped And Developed Standards And Processing Requirements), Section 16.02.020 (Exemptions from Land Use Permit Requirements), and Section 16.24.080 (Exceptions) for activities and features exempt from review.

B. Basis for Slope Determinations. Slope determinations shall be based upon citywide contour data as provided on the City's website under the Geographic Information System webpage under Interactive Mapping.

C. Development Plan Permit Required. Hillside developments shall be subject to the approval of a development plan permit in compliance with Chapter 16.56, unless exempt per adopted *City* policy or State Law (Example: Accessory Dwelling Unit).

D. Applicability Criteria. The development standards, guidelines, and provisions of this chapter shall be applied to those portions of land with a predominance of natural slopes exceeding twenty-five (25) percent or greater and areas that are integrally contiguous. The provisions of this chapter shall apply to projects relating to subdivisions, permits, uses, structures, specific plans, master development plans, and associated site plans for development review as described under Table 16.24-1 (Undeveloped and

Developed Standards and Processing Requirements), except as specifically exempted by Section 16.02.020 (Exemptions from Land Use Permit Requirements), and Section 16.24.080 (Exceptions).

TABLE 16.24-1
UNDEVELOPED AND DEVELOPED STANDARDS AND PROCESSING REQUIREMENTS

Feature/Standard	Undeveloped / Natural	Both Undeveloped and Developed Portions of a Hillside Area Site	Developed
Hillside Development Plan Permit	Applies.	Applies to the Undeveloped / Natural portions of the site that were not previously legally disturbed/developed. Exempt from Permit for Developed Portions where the scope of work involves ≤ 50 cubic yards for flatwork, pools, spas, or other areas of the site that have been legally disturbed, and as described under Section 16.02.020 (Exemptions from Land Use Permit Requirements).	Exempt from Permit for Developed Portions where the scope of work involves ≤ 50 cubic yards for flatwork, pools, spas, or other areas of the site that have been legally disturbed, as described under Section 16.02.020 (Exemptions from Land Use Permit Requirements).
Permit Evidence for "Developed" Classification	N/A	Grading permits and records, Building Permits / Certificates of Occupancy, Approved Grading Plans	Grading Permits and Records, Building permits / Certificates of Occupancy, Approved Grading Plans

Evidence for "Developed" Classification without Permit History	N/A	Aerial Imagery. Subject to review by the *Director* for a determination. If there is a disagreement with the determination, it shall be referred to the Planning Commission for a final determination.	Aerial Imagery. Subject to review by the *Director* for a determination. If there is a disagreement with the determination, it shall be referred to the Planning Commission for a final determination.
Grading Permit	Applies.	Applies to the Undeveloped / Natural portions of the subject site that were not previously legally disturbed. For the developed portion of a subject site, a grading permit is required if soil disturbance exceeds 50 cubic yards and is determined to be not exempt by the *City Engineer*, per review of the criteria as described under Section 15.52.030 (Permits Required) and Section 15.52.040 (Permit Exceptions).	Applies if soil disturbance exceeds 50 cubic yards and is determined to be exempt by the *City Engineer*, per Section 15.52.030 (Permits Required) and Section 15.52.040 (Permit Exceptions).
Fine Grade and Drainage Review	N/A	Subject to *City Engineer* review for the developed portions of the site, unless the Fine Grade and Drainage Review is determined not to be eligible, per Section 15.52.030 (Permits Required) and Section	Subject to *City Engineer* review, unless the Fine Grade Drainage Review is determined not to be eligible, per Section 15.52.030 (Permits Required) and Section 15.52.040 (Permit Exceptions).

		15.52.040 (Permit Exceptions).	
Accessory Dwelling Units (ADUs) & Accessory Structures	Approval of an ADU is tolled for any required discretionary actions (e.g. grading permit) per State law.	Approval of an ADU is tolled for any required discretionary actions (e.g. grading permit) per State law.	Approval of an ADU is tolled for any required discretionary actions (e.g. grading permit) per State law.
	Approval of Accessory Structures, 1,000 sq. ft. or greater, requires a Hillside Development Permit	Approval of Accessory Structures, 1,000 sq. ft. or greater, requires a Hillside Development Permit	Approval of Accessory Structures, 1,000 sq. ft. or greater, requires a Hillside Development Permit
All Projects located in a designated Hillside Area	All components are subject to hillside design standards	All components are subject to hillside design standards	All components are subject to hillside design standards

16.24.030 Definitions.
For the purposes of this chapter the following definitions shall apply:

City. The City of Murrieta, state of California, referred to in this development code as the "City."

City Engineer. The director of Public Works/City Engineer of the city or their duly delegated representative.

City Manager. The official employed by an elected council to direct the administration of the City. See Chapter 2.08 "City Manager"

Clearing. The removal of vegetation (grass, brush, trees, and similar plant types) by hand or mechanical means (e.g. brushing, grubbing).

Cluster Development. A concept where structures are grouped on certain portions of a site, frequently of different shapes and sizes, surrounded by large expanses of open space.

Contour. A line drawn on a plan that connects points of equal elevation.

Cut. An act by which soil, sand, gravel, or rock is cut into, dug, quarried, uncovered, removed, or relocated, and shall include the conditions resulting therefrom.

Daylight Line. The line between the finished grade and natural terrain drawn by connecting points where pro-posed contours meet existing contours.

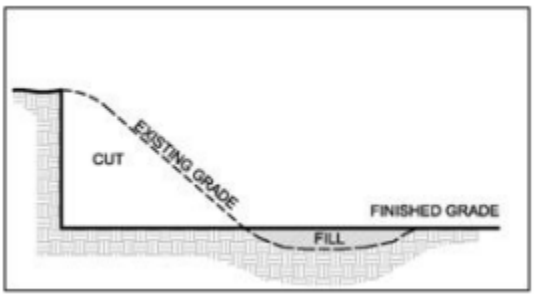
Director. See Section 16.46.050 "Director."

Elevation. Height or distance above mean sea level.

Erosion. The process by which the soil and rock components are worn away and removed from one place to another by natural forces (e.g., wind, water)

Fill. A deposit of soil, sand, gravel, rock, or other material placed by artificial means.

Finished Grade. The final elevation of the ground surface after development, that is in conformance with approved plans.



Grading. To bring an existing surface to a designed form by excavating, filling, or landforming operations.

Contour Grading. A grading concept designed to result in earth shaping that resembles natural terrain characteristics.

Conventional Grading. A grading concept that results in simple, straight forward, cut and fill lines and even *slopes*.

Landform Grading. A grading method that replicates the irregular shapes of the natural ground surface. Landform graded land surfaces are characterized by continuous series of concave and convex forms interspersed with mounds that blend into profiles, nonlinearity in plan view, varying slope gradients, and significant transition zones, between man-made and natural land surfaces.

Hillside Area. Means those areas specifically designated on a Hillside Overlay Map as adopted by the City Council under Section 16.24.100.

Mass Grading. The movement of large quantities of earth over large areas. Disruption of the majority of the on-site surface terrain resulting in a successive pad/terrace configuration.

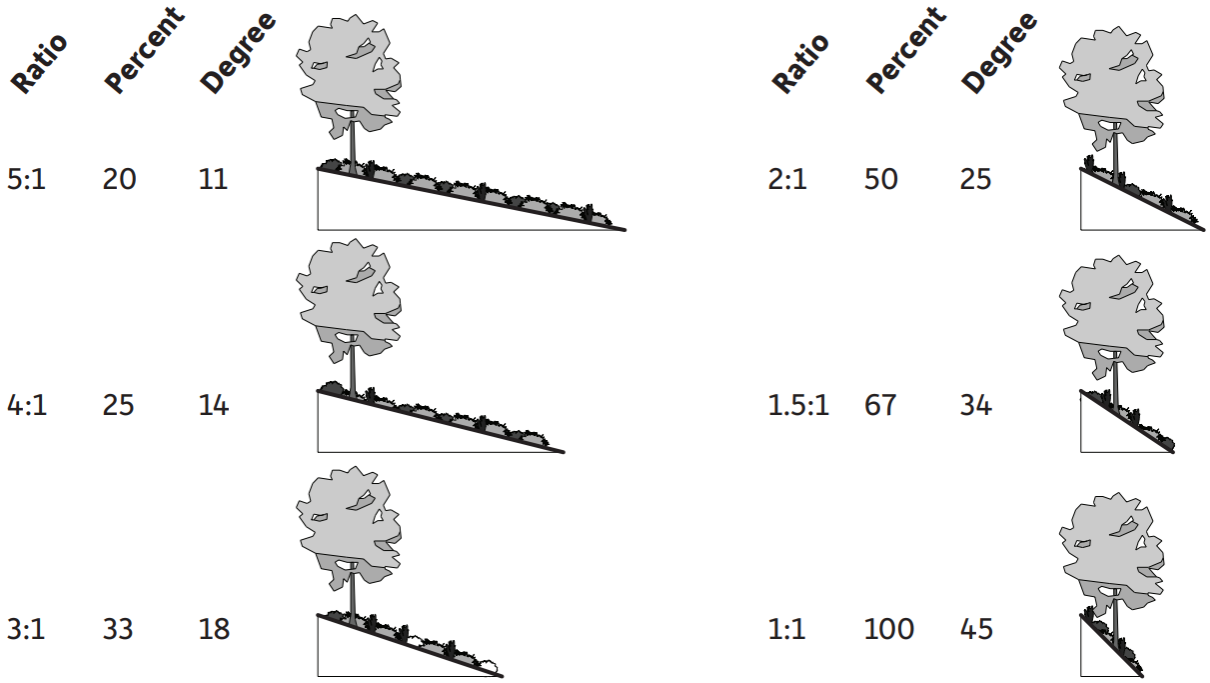
Minimal Grading. A grading concept designed to minimize excavation and filling. Allows the movement of earth for projects (e.g., as individual building foundations, driveways, local roads, and utility excavation). The concept is associated with roads conforming closely to natural contours and with structures being built on natural terrain.

Pad. A level area created by grading to accommodate development.

Prominent Ridge. A ridge or hill location that is visible from Interstate 15, Interstate 215, or from an arterial or secondary street, that forms part of the skyline or is seen as a distinct edge against a backdrop of land.

Ridge. An extended, narrow, conspicuous elevation of land generally between valleys.

Slope. An inclined ground surface, the inclination of which is expressed as a ratio of the vertical distance (rise), or change in elevation, to the horizontal distance (run). The percent of a given slope is determined by dividing the rise by the run, multiplied by one hundred (100).



Slope, Man-made. A manufactured slope consisting wholly or partially of either cut or filled material. Slope, Natural. A slope that is not man-made.

Slope, Natural. A slope that is not man-made that exceeds twenty-five (25) percent.

Slope Ratio. The relationship of a slope's horizontal length to vertical height, with the height specified as one (e.g. 2:1).

Slope Transition. The area where a slope plane changes to meet the natural terrain or a level graded area either vertically or horizontally.

16.24.040 Application Submittal Requirements.

Applications for development shall comply with the submittal requirements of this chapter. When a development project is a specific plan or master development plan, the submittal requirements shall be incorporated in the appropriate sections of the corresponding documents. If adequate detailed studies are provided with the specific plan and/or master development plan, subsequent implementing development applications shall be reviewed for substantial conformance with these plans.

Application filing requirements are as follows:

A. Natural Features Map. This map shall identify slope banks, ridgelines, canyons, natural drainage courses, United States Geological Survey (U.S.G.S.) blueline streams, rock outcroppings, sensitive biological habitats, cultural resources, and other natural features for the purposes of project review and California Environmental Quality Act (CEQA) analysis.

B. Overall Conceptual Grading Plan. An overall conceptual *grading* plan shall be submitted at a minimum scale of one (1) inch equals twenty (20) feet). The plan shall include the following items:

1. A legend with symbols identifying the following, but not limited to: high point, low point, spot *elevations*, *pad*, top of wall, top of footing, top of curb, top of ground surface on both sides of a retaining wall, and planned drainage improvements;

2. A separate map shall be provided with proposed *cut* and *fill* areas, depths of these identified areas shown in five-foot topographic lines. Quantities of each *cut* and *fill* area shall be identified and calculated as a percentage of the total site area. The *cut* and *fill* areas shall be either colored green and red, cross-hatched, or screened to delineate each respective area;

3. *Contours* for existing and proposed topographic conditions shall be provided within submitted plan exhibits. Existing *contours* shall be depicted with continuous screened lines and proposed *contours* shall be depicted as above except with a solid line. *Contours* shall be shown at minimum intervals of two feet of change in elevation. Elevations of less than two feet shall be depicted with spot elevations; and

4. Additional information as required to assist with review of the project.

C. Drainage Map. A conceptual drainage and flood control facilities map describing planned drainage improvements. The map shall utilize *City* standards or an acceptable alternate as determined by the *City Engineer* or their designee.

D. Slope Profile Drawings. Cross-section slope profiles shall be included with the slope analysis. Additional profiles may be required as determined by the *City Engineer* or their designee. The slope profiles shall:

1. Be drawn at the same scale and indexed, or keyed, to the slope analysis map, *grading* plan, and project site map. Both vertical and horizontal scales shall be indicated;

2. Show existing and proposed topography, structures, and infrastructure. Proposed topography, structures, and infrastructures shall be drawn with a thin, solid line. Existing topography and features shall be drawn with a dashed line;

3. Extend at a minimum of one hundred (100) feet outside the project site boundary to clearly show the impact on adjacent property. Additional distance may be necessary to determine off-site terrain and features;

4. Be drawn along those portions of the subject site where:

a. The greatest portion of the site where alteration of existing topography is proposed;

b. The most intensive or massive portion of the site where development is proposed (e.g. where structures are proposed);

c. Where proposed *grading* would potentially impact existing natural drainage conditions.

5. At least two of the slope profiles shall be roughly parallel to each other and roughly perpendicular to existing *contour* lines. At least one other slope profile shall be roughly at a ninety (90) degree angle to the other slope profiles and existing contour lines.

F. Indicate Source of Data. Indicate the datum, source, data, and scale.

G. Geotechnical Report. A geotechnical and soils report shall be prepared by a registered geotechnical engineer to *City* standards and provide in sufficient detail to substantiate and support the design concepts presented in the application. Additional environmental technical studies and investigations, including, but not limited to, hydrologic, seismic, access/circulation, cultural, tribal cultural, and biological resources may be required to help in the determination of the buildable area of a subject site for consistency with project review and for California Environmental Quality Act (CEQA) analysis.

H. Objective Design Guidelines. Objective design guidelines shall be provided for projects that are to be reviewed by the Planning Commission. Otherwise, illustrative building *elevations* showing all sides of the structure shall be provided.

I. No Grading Proposed. See 16.24.080 (Exceptions) for applicability.

J. Additional Information. The following items may be required if determined necessary by the *City Engineer* or their designee to aid in the analysis of the proposed project:

1. A line of sight or view analysis;

2. Photographic and/or computer-generated graphic renderings; or

3. A topographic model and/or large-scale detailed partial model;

16.24.050 Project Review Procedures.

Projects within designated hillside areas shall be subject to review and approval by the director or the commission in compliance with the provisions of this chapter.

A. Director Approval. The director shall approve, approve with conditions, or deny development proposal applications when the following conditions apply:

1. Development plan permits;

2. Extensions of time; or

3. Building permit reviews.

B. Commission Approval. The commission shall approve, approve with conditions, or deny development proposal applications when one or more of the following conditions apply:

1. When padded building sites are proposed, or

2. Proposals referred to the commission by the director.

C. Modification of Requirements. The commission may modify or waive a development standard:

1. When an improved or more environmentally sensitive design would result. Further, where it can be demonstrated that imposing the objective hillside development standards would either render a parcel unbuildable and create a loss of its reasonable economic use, or place an undue restriction on the improvement of the property, development consistent with the *City's* General Plan shall be allowed subject to approval by the Planning Commission, if the following findings can be made:

   a. The site is physically suitable for the design and siting of the proposed development. The proposed development will result in minimum disturbance of environmentally sensitive areas;

   b. The *grading* in connection with the development would not result in soil *erosion*, silting of lower *slopes*, flooding, severe scarring, create other geological instability conditions, or a fire hazard condition that would affect the public's health, safety and general welfare for the *City*, as determined by the City Engineer.

16.24.060 Hillside Development Standards.

The following are minimum standards and shall apply to a use, development, or alteration of land in compliance with Section 16.24.020 (Applicability). These standards are supplemented by the provisions of the development guidelines contained in Section 16.24.070 (Hillside Development Guidelines) of this chapter.

A. Hillside Slope Categories. The following categories serve as guidelines for determining the applicability of hillside conditions at a subject site.

TABLE 16.24-2
HILLSIDE DEVELOPMENT STANDARDS

% Natural Slope Category	Standards
Under 25%	This is not considered a hillside condition.

25% and Over but less than 50%	This is a hillside condition. Development within this slope category is limited to the less visually prominent *slopes* of a subject site, where it can be demonstrated that *grading*, vegetation removal, safety, aesthetic, and other environmental impacts are minimized. Potential impacts from site access and roadways shall be minimized by following natural *contours* or using grade separations. Proposed structures shall blend with the natural landform through their shape, material, and utilization of natural occurring color(s).
50% and over[(1)]	This is an excessive slope condition and development is prohibited.
	[(1)] This applies to the property as a whole.

B. Site Design.

1. Projects shall incorporate clustering, variable setbacks, multiple orientations, and other site planning techniques to preserve open spaces, protect natural features, and offer views to residents.

2. When clustering techniques are utilized, the minimum lot sizes may be decreased to five thousand (5,000) square feet when it is necessary to preserve sensitive lands (e.g., hillsides, creeks, habitat areas, etc.). Lots may be allowed smaller than five thousand (5,000) square feet, but not smaller than four thousand (4,000) square feet, for up to twenty (20) percent of the total approved lots and only under an approved specific plan when necessary to preserve sensitive and Hillside Areas. Lots under five thousand (5,000) square feet are prohibited in slope areas of twenty-five (25) percent or greater.

C. Driveways and Roadways.

1. Driveways shall be designed in a manner as to when a vehicle is entering a public and /or private streets, adequate sight distance shall be maintained as determined by the *City Engineer* or their designee.

2. Driveways shall not be located within three feet of a side property line. Exceptions to this standard may be considered based on lot size, percentage of slope, drainage facilities and use as a common driveway by the *City Engineer* or their designee.

3. Only *slopes* less than fifty (50) percent (2:1) shall be permitted adjacent to driveways.

4. Driveway grades above fifteen (15) percent may only be considered by the *City Engineer* or their designee when driveways are aligned with the natural *contours* of the land, and are necessary to achieve site design, and safety considerations to the satisfaction of the building and safety official, City Engineer, or designee, and fire code official. Design considerations shall be employed, including the use of vertical curves. On proposed driveways with a slope greater than fifteen (15) percent, a coarse, all-weather paving material (e.g. asphalt or concrete), or grooves for traction, shall be incorporated into the design.

5. Roadways shall conform to the natural landform. Significant alterations to the physical and visual character of a hillside shall be avoided by eliminating large notches in ridgelines and wide straight alignments. Modified or reduced-width road sections and split sections shall be considered in the layout of hillside streets to reduce *grading* and *cuts* in topography while allowing access for fire trucks and other emergency vehicles.

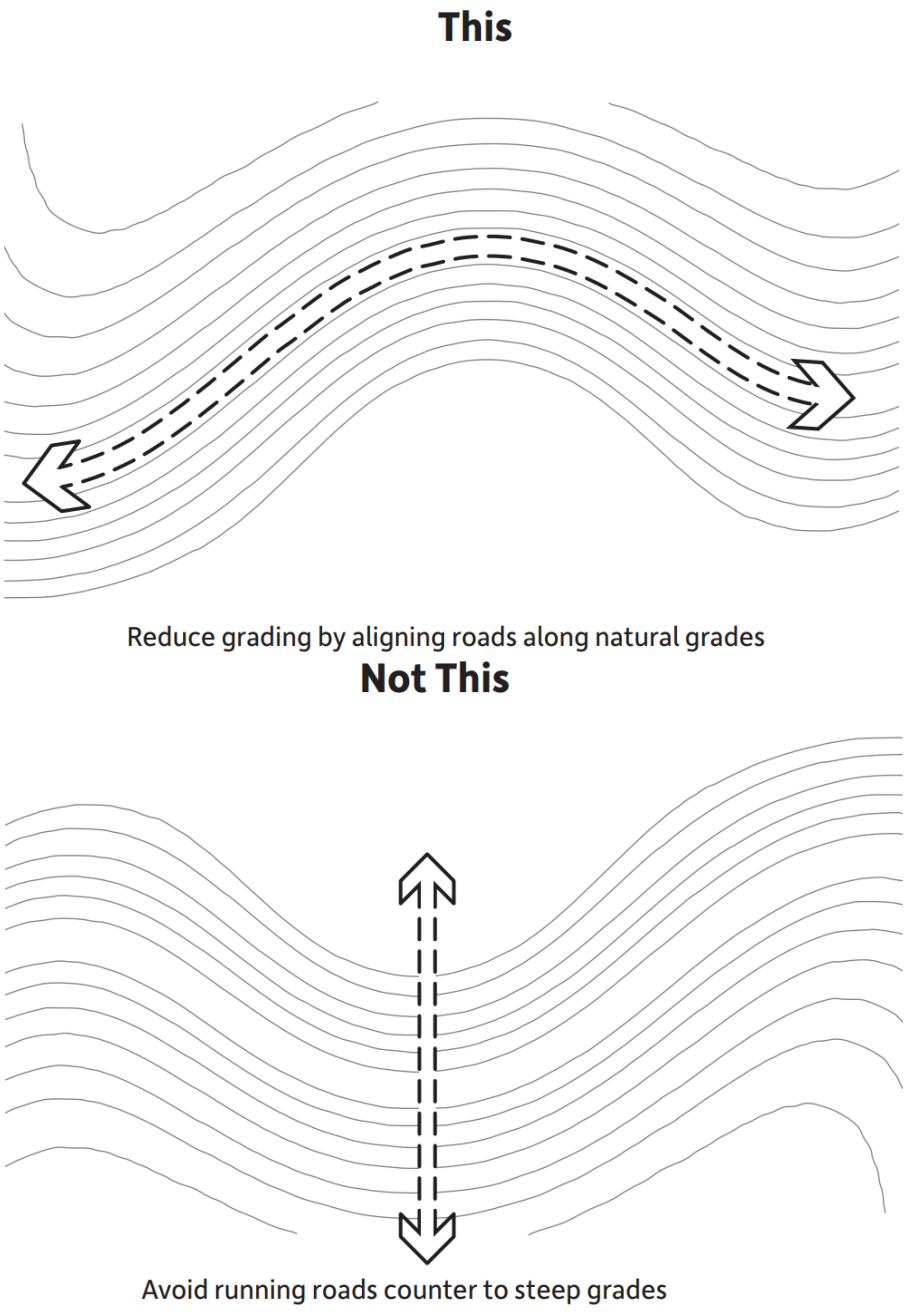


FIGURE 16.24-1
ROADWAY PLACEMENT

6. Where road construction is proposed, the standards shall be consistent with those identified for high fire hazard areas, the California Fire Code, and with *City* design standards.

7. The extent of vegetation and visual disruption shall be minimized by the combined use of retaining structures and regrading to approximate natural *slopes*. The view along a street frontage shall be screened with landscaping and the maintenance of views shall be preserved as demonstrated on the

project plans. The use of terraced walls and landscaping is a recommended design technique to address this visual impact.

8. Wet utilities shall be placed in the road right-of-way, where feasible, and approved by the reviewing agency.

9. Scaled roadway drainage facilities and grades shall be provided consistent with *City* design standards.

D. Architecture.

1. The maximum structure height shall be thirty (30) feet. Refer to Section 16.18.080.A (Maximum Height) for additional criteria on how to calculate the maximum height for a sloped parcel.

a. Architectural Projections Allowed. Architectural projections and variations in roof design are encouraged. Projections above the maximum height limits for architectural features may be allowed subject to approval by the *Director*.

2. Reduction of front yard setbacks may be considered in order to minimize rear yard grading.

3. Building materials and color schemes shall be of earth tones and the value (lightness or darkness) of the specific hue shall be as close to that of the immediately surrounding landscape as possible as demonstrated on the project plans.

4. Treated wood or materials of a wood-like appearance, having the necessary fire retardant characteristics are a design option for exterior surfaces. Use of other natural materials (e.g., river rock) is a design option as well. The reflectivity of exposed surfaces (walls, roofs, windows, frames, and paved surfaces) shall be mitigated with the incorporation of overhangs, trellises, planting, and similar features.

5. Exterior lighting shall be located and shielded in compliance with Section 16.18.100 (Lighting).

E. Walls and Fences.

TABLE 16.24-3 RETAINING WALLS – WITHIN HILLSIDE AREAS	
Criteria	
Up to Three Feet Within Front or Street-Side Setback	Walls within the required front yard or street-side setback shall not exceed three feet in height, shall be separated by a minimum of three feet, and shall incorporate landscaping to screen the wall(s).
Line-of-Sight Locations/Visibility Triangles	For any required line–of–sight locations, or visibility triangles, a maximum of thirty inches in height shall be permitted.

Up to Six Feet.	Where multiple terraced retaining walls are designed to retain larger slopes, they shall not exceed six feet in height. Refer to Figure 16.24-2.
Over Six Feet	Prohibited, unless the applicant seeks a waiver or modification. The director may waive or modify the requirements of this standard if the following findings can be made: That the waiver of modification, as applied to the project, will not adversely impact adjoining properties; and That the waiver or modification will not be contrary to the public health, safety, and general welfare; and That the waiver or modification will ensure that the retaining wall incorporates additional screening measures where a wall would be visible from the public right-of-way, including, but not limited to, the use of earth-tone colors and/or landscaping, in order to maintain visual compatibility with the surrounding hillside area.
Over Six Feet and as Part of the Structure.	Walls that are an integral part of the primary structure may exceed six feet in height; however, their visual impact shall be mitigated through *contour grading* and landscape treatment. Refer to Figure 16.24-3.
Required Offset	At six feet in height, a retaining wall shall be separated by a minimum of six feet horizontally. Refer to Figure 16.24-2.

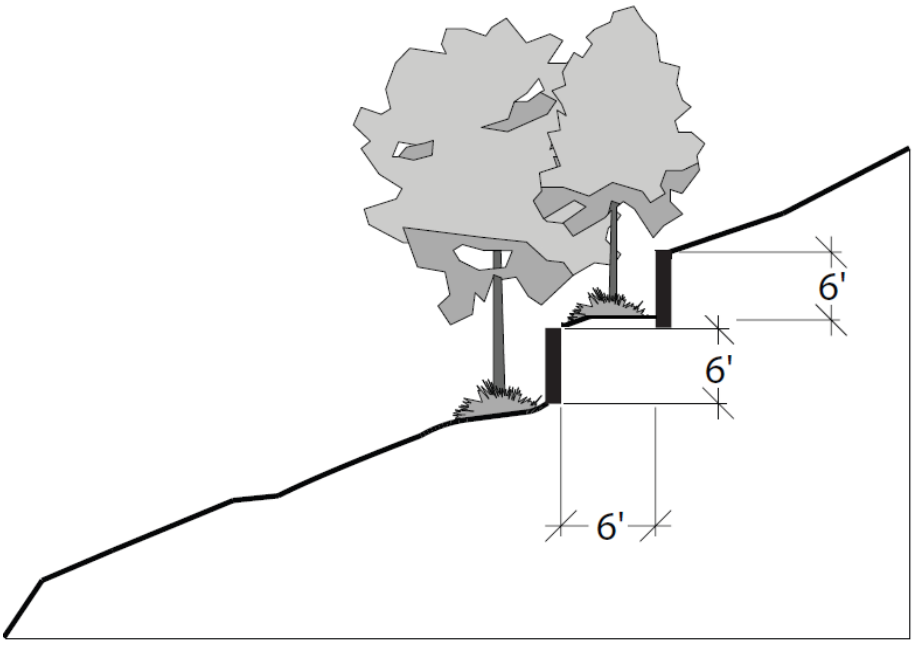


FIGURE 16.24-2
HEIGHT OF RETAINING WALLS

3. Walls that are an integral part of the primary structure may exceed six feet in height; however, their visual impact shall be mitigated through contour grading and landscape treatment.

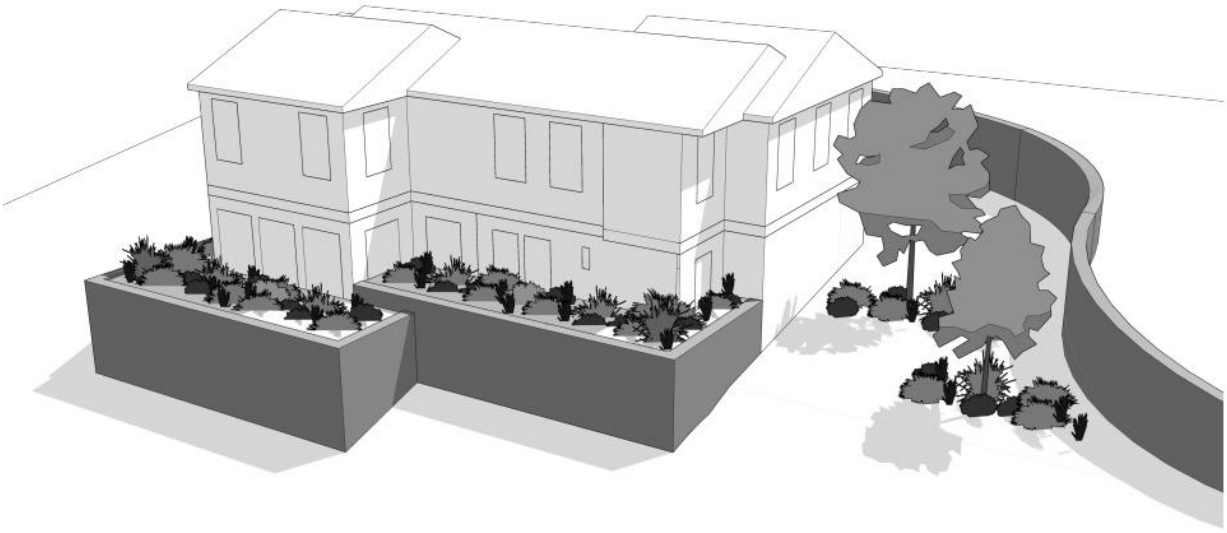


FIGURE 16.24-3
RETAINING WALL AS PART OF PRIMARY STRUCTURE

1. Retaining walls may be permitted when used to reduce grading, preserve natural features, or improve soil stabilization.

2. Split-face block, crib walls, keystone systems, retaining walls with stone veneer, and similar designs may be utilized.

3. The color palette and materials of a retaining wall or similar wall system should utilize earth-tone colors and be consistent with the predominant hues and materials of the adjacent hillsides.

4. If landscaping is proposed to be utilized in conjunction with a retaining or similar wall system, plant materials should be appropriate for the local climate and suited to the wall's sun exposure.

FIGURE 16.24-4
EXAMPLE OF DECORATIVE RETAINING WALL WITH A STONE VENEER

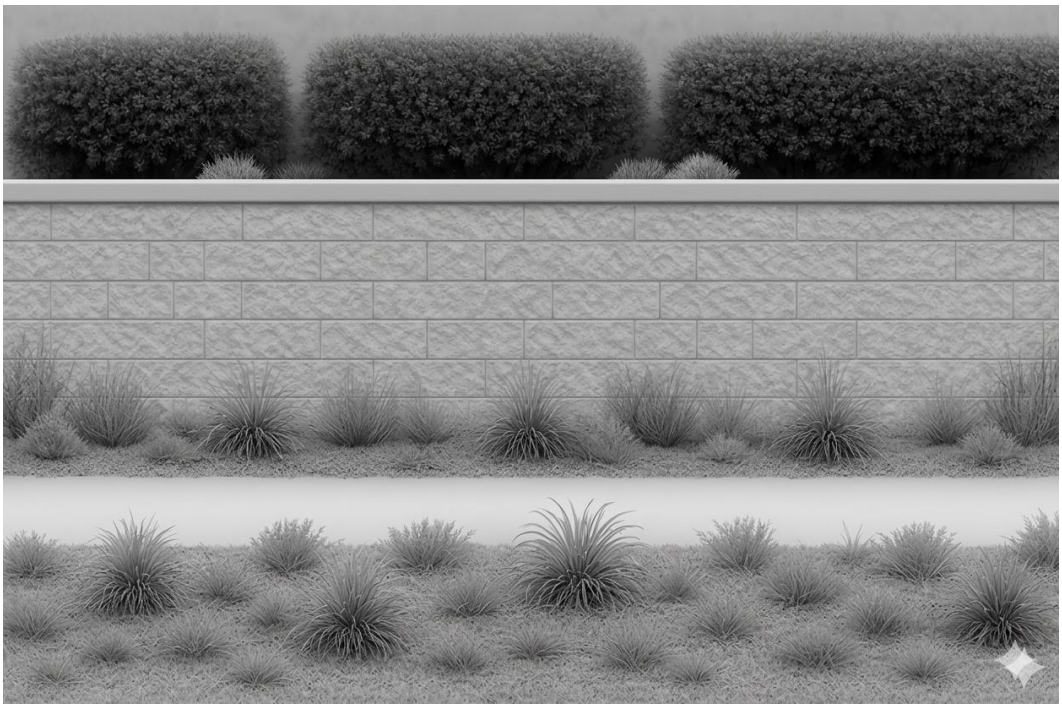


FIGURE 16.24-5
EXAMPLE OF SPLIT FACE RETAINING WALL

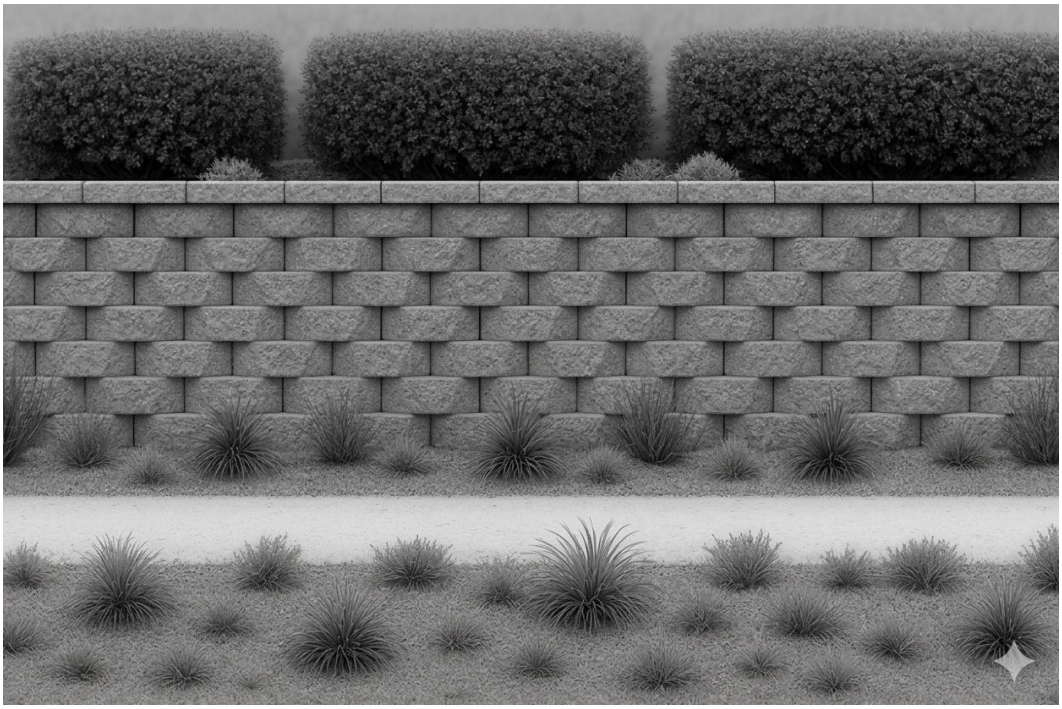


FIGURE 16.24-6
EXAMPLE OF KEYSTONE RETAINING WALL

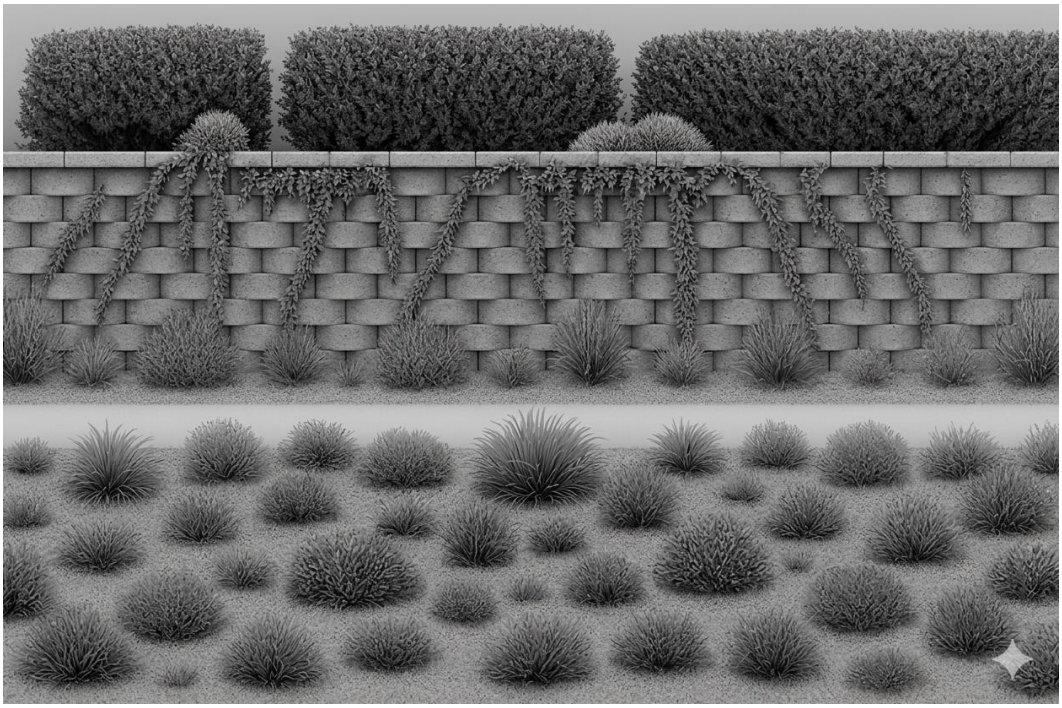


FIGURE 16.24-7
EXAMPLE OF KEYSTONE RETAINING WALL WITH LANDSCAPING

5. Retaining Walls visible from the public right-of-way shall be designed to provide variation in placement, use of planters, differing materials, and modulation of the wall plane to help emulate the pre-existing hillside contours.

6. Retaining Walls shall follow landform grading shapes and contours.

7. Tubular steel or wrought-iron safety fencing may be necessary in conjunction with retaining wall locations. If necessary, these wall locations are to provide for landscape safety maintenance personnel. Construction shall be consistent with the California Building Code (CBC) and related codes.

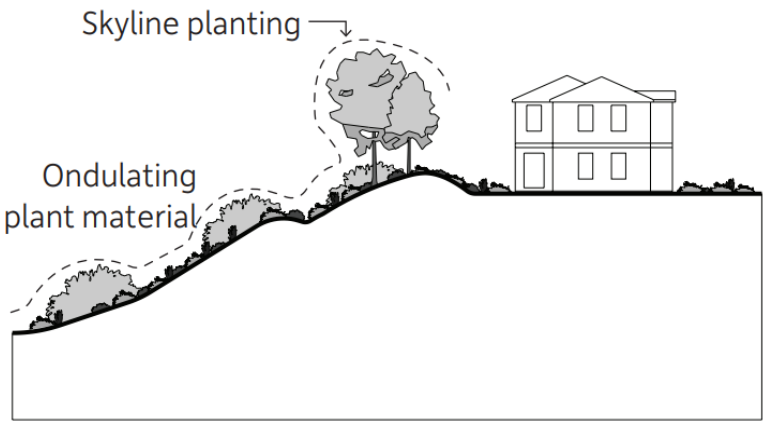
F. **Landscaping.** Revegetation in hillside areas shall reflect the visual patterns found naturally in local canyons and valleys. The landscaping as viewed from urban areas and the arterial roadway system shall mask and screen man-made structures.

1 . Indigenous, or naturalized plants that blend naturally with the landscape shall be utilized in areas where planting is required. The plant selection shall be deep-rooted, drought-tolerant, and fire-resistant.

2. Natural landform planting shall be used to soften manufactured slopes, reduce the impact of development on steep slopes or ridgelines. and provide erosion control. These landscape techniques shall serve to reintroduce landscape patterns that occur naturally.

This

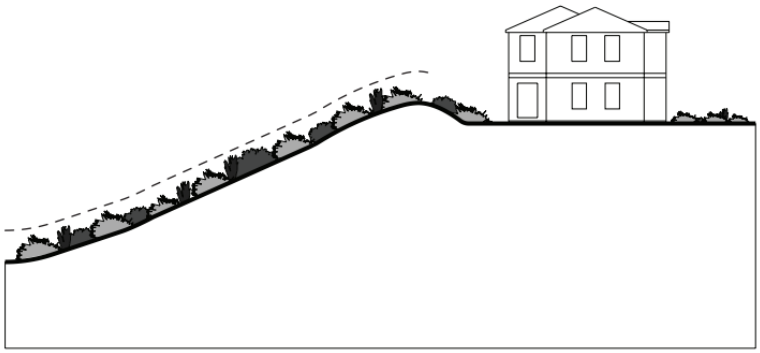
Landform Planting



Irregular visual plane in cross-section

Not This

Conventional Planting



Uniform visual plane in cross-section

FIGURE 16.24-8
NATURAL LANDFORM PLANTING

3. A "vegetative backdrop" shall be maintained by replanting the site with native trees and/or providing the same vegetation that was removed, consistent with *City* landscaping standards. As demonstrated in the project plans, the proposed vegetation shall be sized and spaced appropriately to screen structures from the growth of the species at maturity and to preserve the appearance of the natural skyline.

4. The surface of graded or disturbed slopes with three feet or greater vertical height shall be protected against damage by erosion through the planting *of* deep rooted ground cover as demonstrated on the project plans. Slopes exceeding eight feet in vertical height shall be planted with ground cover and a combination of shrubs and trees that have a high "root-to-shoot" ratio. The size of shrubs and trees shall be determined based on the individual project area as deemed appropriate by the department and/or Planning Commission.

5. Jute mesh or an equivalent shall be required when planting occurs between August fifteenth and April fifteenth, and when determined, as necessary, by a soils engineer and/or licensed landscape architect. Jute mesh shall be used in combination with required plantings as outlined in the slope landscaping guidelines available on the City of Murrieta's website for optimal long-term *slope* stabilization.

6. Indigenous, native vegetation shall be retained and supplemented within canyons and along natural drainage courses where grading does not occur, provided that it conforms with fuel modification and tire prevention plans.

7. Common open space areas, front, and side yards adjacent to a street shall be landscaped and irrigated consistent with *City* landscaping and fire protection standards. These areas shall be provided with native plant materials that blend with the natural character of the surrounding landscape.

8. In order to protect *slopes* from soil erosion and failure, and to facilitate revegetation, and automatic irrigation system shall be installed on *slopes* with planting. Design and operation of the irrigation system shall respect the special conditions that exist in hillside situations specific to maintaining *slope* stabilization and integrity. In all cases, the emphasis shall be toward using plant materials that may eventually not need to be irrigated; therefore, temporary irrigation systems may be used as approved by the *City's* landscape architect and *City Engineer*. Water and energy conservation techniques shall be utilized (e.g. drip irrigation, alluvial rockscape, etc.). Where irrigation systems are installed above ground, ultraviolet light-resistant brown line, or other approved color, shall be used.

9. A permanent fuel modification area shall be required around projects that are located within high or very-high fire severity zone, adjacent to a high or very-high fire severity zone, or exposed to hazardous fire areas for the purpose of fire protection. The fuel modification area shall be maintained by its owners, a homeowners' association, or other public nonprofit agency, or conveyed within a public easement. Adequate provisions shall be made for the continual maintenance of these areas, and the fire code official may require brush, vegetation, combustible item(s), or debris to be removed, cleared, and maintained, consistent with the provisions of Chapter 8.32 of the Municipal Code. Where feasible, fuel modification areas shall be designated as common open space rather than private open space. The recommended width of the fuel modification area shall be based on applicable building and fire codes and the recommendations of the fire code official with consideration given to:

a. A worst-case Santa Ana wind condition;

b. The natural ungraded slope of the land within the project and in the areas adjacent to the project;

c. Fuel load;

d. All weather access to the project by fire suppression equipment and personnel, access directly to the fuel modified area, and egress out of the project area in case of evacuation;

e. The on-site availability of water that can be used for firefighting purposes with regard to fire flows, water pressure, and duration;

f. "Built-in" fire protection within structures (i.e., sprinklers etc.);

g. Soil erosion and sediment control measures;

h. The fire department fuel modification policy and the Wild Urban Interface Undesirable Plants & Trees list;

i. Fuel modification zones for landscaping as outlined by the California Department of Forestry and Fire Protection.

10. Fuel modification areas shall also incorporate soil erosion and sediment control measures to alleviate permanent scarring and accelerated erosion.

G. Grading.

1. *Grading* shall not take place on natural *slopes* that exceed fifty (50) percent.

2. *Slopes* created by *grading* of the site shall not exceed fifty (50) percent or 2:1. Slopes exceeding 2:1 but less than or equal to 1.5:1 may be considered upon additional analysis by a licensed geotechnical engineer. *Slopes* shall not exceed thirty (30) feet in height between terraces or benches, except that the Planning Commission may permit *slopes* exceeding these dimensions where the *slopes* will result in a natural appearance and will not create geological or *erosion* hazards. The soils report and stabilization study shall be subject to third-party review prior to approval by the *City*.

3. In order to help address visual impacts at *Prominent Ridgelines*, the use of the combination of naturally occurring vegetation (trees/shrubs) and proposed landscaping shall be implemented to screen proposed structures at these locations. Alternatively, earth tone colors can be used as a design option if landscape screening is not feasible. Additionally, any required Fuel Modification Zone and California Fire Code standards shall be considered in the design of this screening method, blending with the terrain and existing vegetation.

4. *Clearing* and/or grubbing, excavation, and other earth disturbances shall not be initiated on *hillside areas* prior to the issuance of a *grading* permit, with the exception of county/state authorized soils remediation operations, drill holes, and exploratory trenches for the collection of geologic and soil data or for weed abatement activities. Trenches are to be backfilled and *erosion* treatment provided where *slopes* exceed twenty-five (25) percent.

5. Manufactured *cut* and *fill slopes* exceeding ten feet in height which would be either exposed to public view, or are adjacent to environmentally sensitive areas, shall be *landform* or *contour* graded, where physically feasible, so that their ultimate appearance will resemble a natural slope. This will include *slopes* adjacent to streets and highways, *slopes*, adjacent to parks, schools, open spaces, and other public facilities and other prominent slopes.

6. *Landform grading* shall be used where zero to twenty-five (0-25) percent (non-hillside) *slopes* intersect with twenty-five to fifty (25-50) percent (hillside) *slopes*. Proper transitioning from manufactured *slopes* created by *conventional grading* methods to natural *slopes* shall be achieved

gradually and naturally through the use of radii or irregular curvilinear shapes that will blend into the adjoining topography tangentially and not create abrupt changes.

7. Fill *slopes* shall not be placed perpendicularly across a canyon. Straight line *cut* of *fill slopes* shall not be made to appear like a dam. The terminus of the *fill* shall, instead, be concave in shape to restore the canyon appearance. This concave configuration shall be in combination with the use of substantially flatter *slope ratios* (4:1, 3.5:1, 3: I) at or near the center of this indentation. Symmetrical or unsymmetrical con-cave configurations shall be used depending upon the adjoining or underlying topographic characteristics.

8. Minimal radius rounding at the edges of *cut* and *fill slopes* is not an acceptable method. Transitioning from manufactured *slopes* to natural *slopes* shall be achieved gradually and naturally through the use of radii or irregular curvilinear shapes that will blend into the adjoining topography tangentially and not create abrupt changes.

9. In the planning, design, and development of public utilities and infrastructure, every reasonable effort as demonstrated shall be made to minimize *grading* impacts and incorporates a design that follows the natural *contours* and character of the land.

10. Side yard *slopes* and rear yard slopes (less than twenty (20) feet in height) whose view is blocked by future structures need not have landform design applied.

11. *Grading* shall be phased so that prompt revegetation or construction will control *erosion*. Where possible, only those areas that will be built on, resurfaced, or landscaped shall be disturbed. Top soil shall be stockpiled during the rough *grading* phase and utilized on *pads* or revegetated habitat areas, upon the recommendation of the soils engineer.

12. Applicable requirements of the *City* and state shall be complied with in conjunction with the latest National Pollution Discharge Elimination System (NPDES) permit prior to the issuance of a *grading* permit. This may include, but is not limited to, a *Grading* Plan, and *Erosion* Control Plan, Best Management Plan (During Construction and Post-Construction Phases) and Construction Monitoring Program.

H. Drainage.

1. Debris basins, energy-dissipating devices, and down drains shall be provided, where necessary, to reduce *erosion* when *grading* is undertaken in the *hillside areas*. Natural drainage courses shall be retained where health and safety can be maintained. Drainage courses retained in a natural state shall be protected from grading activity. In instances where a crossing is required, a natural crossing and bank protection shall be a design option over steel and concrete systems. Where drainage structures are required, they shall be naturalized with coloration, plant materials, native rocks and/or concealment with *grading* techniques.

2. Drainage channels, slope drainage devices, interceptor drains and terrace drains shall be placed in less visible locations as demonstrated on the project plans and evaluated for erosion. Down drains shall be hidden in swales diagonally or curvilinear across a slope face. In this manner they will be built into the overall landform of the slope. They shall also receive a naturalizing treatment, which may include native rock, colored concrete, and/or landscaping so that the structure appears as an integral part of the environment. In all cases, a concrete liner shall be used in addition to a naturalizing treatment as demonstrated on the project plans and evaluated for erosion.

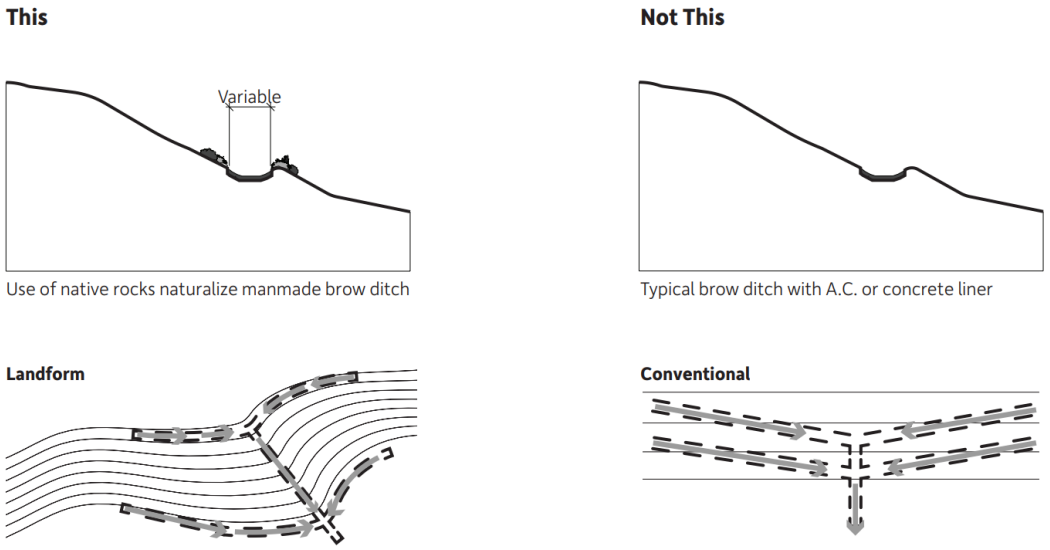


FIGURE 16.24-9
NATURALIZED VERSUS CONVENTIONAL LANDFORMING

3. Cross-lot drainage usage shall be minimized. In situations where this is not possible using conventional design, optional techniques (e.g., single loaded streets, reduced densities, etc.) shall be considered. Use of cross-lot drainage may be considered only after demonstration that this method will not adversely affect the proposed lots or adjacent properties, and that it is required in order to minimize the amount of *grading* which would result with conventional drainage practices.

4. Where cross lot drainage is utilized, the following shall apply:

a. Project Interiors. One lot may drain across one other lot if a maintenance easement is provided within either an improved, open "V"-swale gutter which has a naturalized appearance, or within a closed drainage pipe that shall be a minimum twelve (12) inches in diameter. This drainage shall be conveyed either to a public street or to a drainage easement. If drainage is conveyed to a private easement, it shall be maintained by its owners or a Homeowners' Association; otherwise, the drainage shall be conveyed to a public easement. The easement width shall be determined on an individual basis and shall be dependent on appropriate hydrologic studies and access requirements. Irrigation lines shall be placed above swales to minimize the impacts in the event of a system failure. When irrigation lines cross an open "V"-swale they shall be placed into a galvanized pipe, which is to be clamped to the soil on both sides of the swale subject to the review of the *City Engineer* or their designee.

b. Project Boundaries. On-site drainage shall be conveyed in an improved open "V"-swale gutter, which has a naturalized appearance, or within an underground pipe in either a private drainage easement, that is to be maintained by its owners or a homeowners' association, or it shall be conveyed in a public easement. The easement width shall be a minimum of ten feet. A greater width may be determined necessary on an individual basis and shall be dependent on appropriate hydrologic studies and access requirements.

I. Public Safety.

1. Residential developments shall be constructed in a manner so as to reduce the potential for spread of wildfires as follows:

a. In the case of a conflict where more restrictive provisions are contained in the adopted and/or locally adopted version(s) of the California Building Code or in the California Fire Code, the more restrictive provisions shall apply.

b. Roofs shall be covered with noncombustible materials (e.g., clay tile, concrete shake, tile, or similar materials). Open ends shall be stopped in order to prevent bird nests, or other combustible material, lodging within the roof and to prevent entry of flames.

c. Exterior walls and fences shall be surfaced with noncombustible or flame resistive materials. Alternate surface materials may be approved subject to the approval of the fire code official and building official. Except as otherwise provided herein, exterior walls shall extend to the ground.

d. Balconies, patio roofs, eaves and other similar overhangs shall be of noncombustible or flame resistive materials.

e. Plastic webbing, split or whole bamboo, reed or straw-like materials, corrugated plastic or fiberglass materials, and similar flammable materials are not permitted for use on patio covers.

f. Vents for attics and underfloor areas shall be designed and located to minimize the likelihood of the spread of fire.

g. Chimneys shall be provided with approved spark arresters.

2. Adequate water supply and pressure for the proposed development shall be required in compliance with the fire department Standards.

3. The fire code official shall require brush, vegetation, or combustible debris to be removed and cleared within ten feet on each side of every roadway and access drive, and may enter upon private property to do so. This requirement shall not apply to single specimens of trees, ornamental shrubbery, or cultivated groundcover provided they do not form a means of readily transmitting fire.

4. If the fire code official determines in a specific case that difficult terrain, danger of *erosion*, or other unusual circumstances make strict compliance with the clearance of vegetation undesirable or impractical, he or she may suspend enforcement thereof and require reasonable alternative measures designed to advance the purposes of this chapter.

5. Site design shall provide for all-weather equipment access to publicly maintained slope areas for maintenance and emergency purposes. Secondary access shall be provided, or an alternative method may be considered by the fire code official with evidence to ensure public safety.

6. Structures and facilities shall be restricted in geologically hazardous areas.

7. Special construction features shall be required in the design of structures where site investigations confirm potential geologic hazards.

8. Development not on public sewers shall be permitted only after site specific investigations have been conducted that demonstrate the soils are suitable for on-site wastewater disposal and the disposal of wastewater will not degrade the subsurface water quality.

9. Due to the hazard associated with saturated soils in areas of steep *slopes*, irrigation systems in critical areas that have the potential for failure in the judgement of the *City Engineer*, or their designee, shall be required to be equipped with potentiometers to make sure that the systems will not operate when there is sufficient moisture in the soil.

16.24.070 Hillside Development Guidelines.

The hillside development guidelines are intended to illustrate and amplify the appropriate development concepts for designated *hillside areas*. The guidelines are not intended to be an exhaustive list of standards, but rather policy statements, to encourage development that is sensitive to the unique characteristics common to hillside properties. The guidelines allow for flexibility and they encourage creativity, especially where a specific plan is prepared. However, the objective development standards provided in Section 16.24.060 shall be considered as a "benchmark" against which hillside development proposals will be reviewed for compliance with the purposes of this chapter.

The guideline's purpose is to allow for innovative or alternate methods of design in *hillside areas*. Innovation is encouraged as long as the end result is one that respects the natural character of the hillside and is consistent with the purposes of this chapter and the goals, objectives and policies of the *City's* General Plan .

Conformance with the guidelines shall be incorporated in the preparation and approval of subdivisions and individual site developments. During the application review process, the *City* will evaluate the consistency of the proposal with the purposes of this chapter. Prior to the start of the design effort, it is recommended that the project design team members read the *City's* General Plan and become familiar with its policies.

A. Site Design.

1. Design of building sites shall be sensitive to the natural terrain. Structures shall be located in a way that minimizes *grading* and preserves natural features (e.g., prominent knolls, ridgelines, etc.)

2. Preserve views of significant visual features.
3. Where possible, graded areas should be designed with manufactured slopes located on the uphill side of structures.

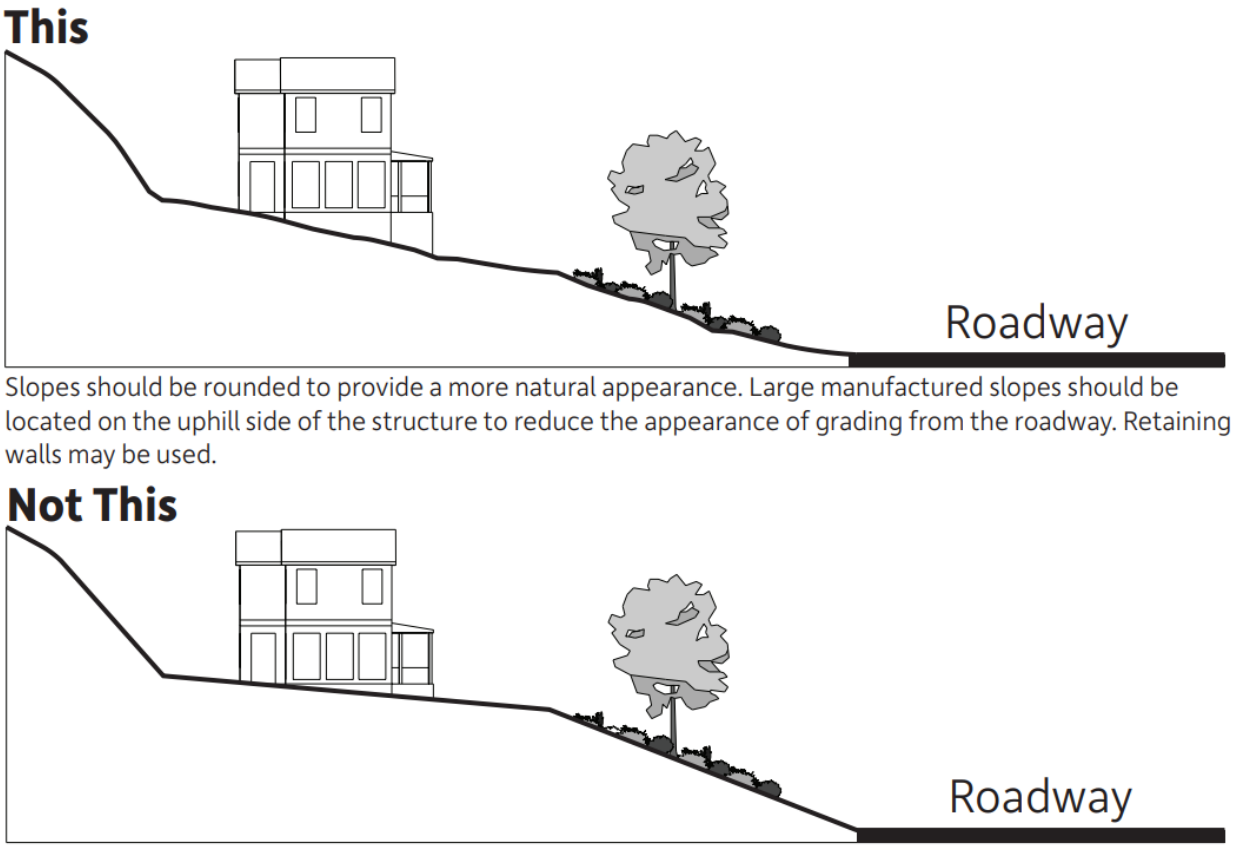


FIGURE 16.24-10
EXHIBIT 2 - BUILDING PLACEMENT AT A SITE

4. To the extent possible, the width of a building, measured in the direction of the slope, shall be minimized. The degree of the *slope* will dictate how this is accomplished and shall be demonstrated on the project plans (See Figure 16.24-11 Exhibit 3 – Building Placement at a Site."

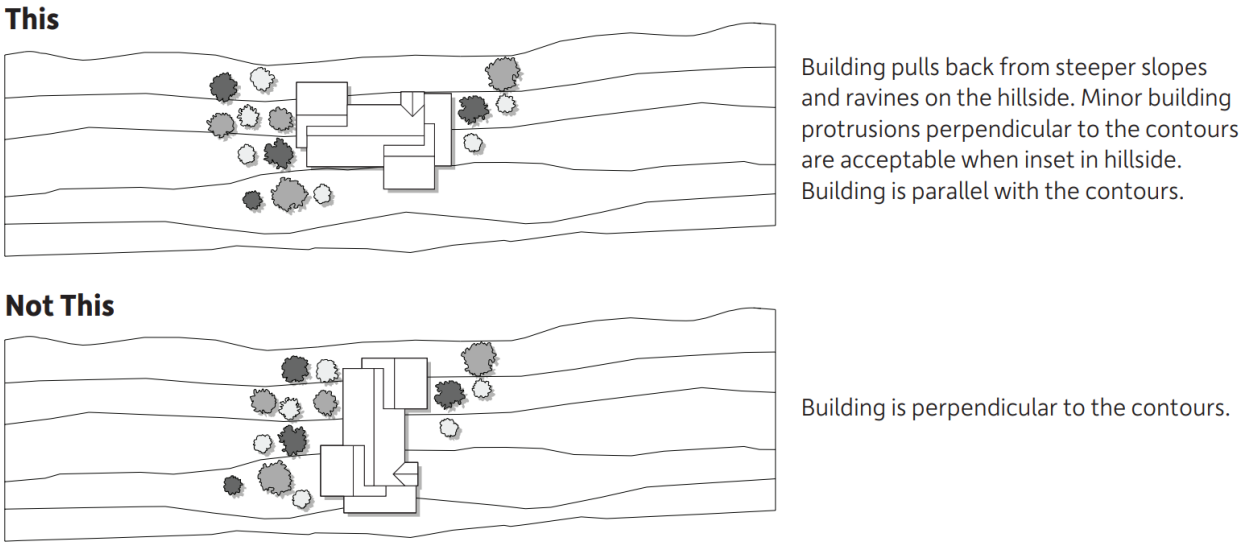


FIGURE 16.24-11
EXHIBIT 3 - BUILDING PLACEMENT AT A SITE

5. Clustering of development is encouraged.

B. Driveways and Roadways.

1. Driveways that serve more than one parcel are encouraged as a method of reducing *grading*, paving, and site disturbance.

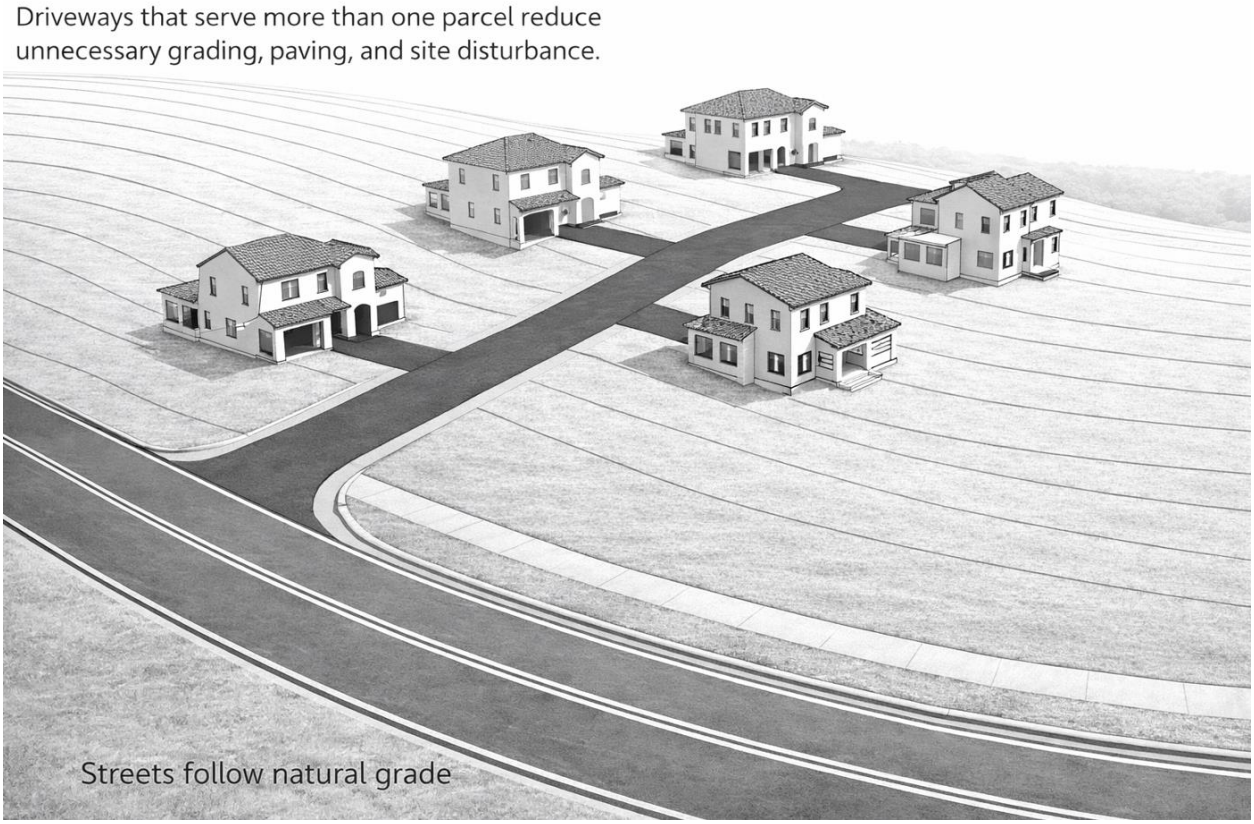


FIGURE 16.24-12
ROADWAY PLACEMENT AT A SITE

C. Architecture.

1. The form, mass, and profile of the individual buildings and architectural features shall be designed to blend with the natural terrain and preserve the character and profile of the natural slope. Techniques to accomplish this include:

a. Detaching the garage from the residence; and

b. Integrating retaining walls into garage walls on sloping lots to reduce *grading*and minimize visibility of walls; and

c. Including architectural enrichments and variations in roof massing. Roofs shall incorporate low profiles (for example 3:12 slope) to minimize their visual impact. On sloping land, the roof pitch shall

follow the slope of the hillside, instead of being perpendicular to the hillside or opposing hillside *slope*. Gable ends shall not be used on downhill elevations. Upper stories shall not be cantilevered out of the opposite direction of the hillside slope.

2. The design of the structure shall give consideration to the lot's size and configuration in order to avoid the appearance of building scale and to minimize the blocking of views as demonstrated on the project plans. For example, within a development, the majority of the units should not be designed with minimum setback to minimum setback. See additional criteria as provided under Section 16.08.030 “Single-family Residential Design Standards and Design Features” and Section 16.08.040 “Multi-family Residential Design Standards”.

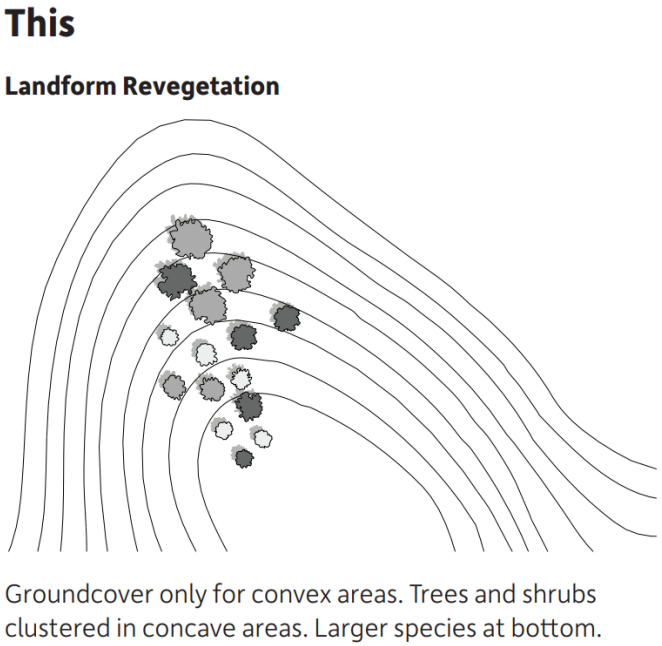
D. Walls and Fences.

2. When possible, walls and fences shall be designed as an integral part of the building in order to minimize the visual impact on surrounding areas.

E. Landscaping.

1. Street trees shall be provided in select areas to enhance the natural character of the areas and to create a more rural appearance. Street tree species selection, and spacing of trees, shall be sensitive to the context in which they are planted. Species selection shall be considered to minimize potential impacts to infrastructure improvements (i.e. root damage to streets, sidewalks, etc.).

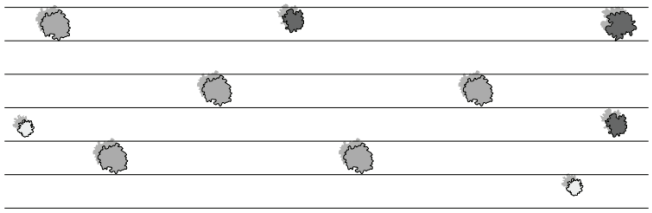
2. *Slopes* shall be designed with informal clusters of trees and shrubs to soften and vary the slope planes, consistent with *landform grading* concepts.



Groundcover only for convex areas. Trees and shrubs clustered in concave areas. Larger species at bottom.

Not This

Conventional Landscaping



Trees and shrubs spaced for uniform coverage.

FIGURE 16.24-13
BUILDING ENVELOPE ON SLOPE

F. Grading.

There are three distinct types of grading proposed in these guidelines, each with a unique quality, and each with an individual and appropriate application as determined by the *City Engineer* or designee. Larger sites will most likely incorporate all three concepts in various parts of the plan.

1. Minimal Grading. This is typically used for large lot single family homes, custom homes with variable foundations that conform to the existing *slopes*, and other uses that utilize the least amount of *grading* in order to get the facility and structures built. This technique embraces the following concepts:

a. *Grading* shall be limited to individual flat graded pad areas for residential building sites. *Grading* shall be limited to only the required building areas and adjacent outdoor amenities in steep *hillside areas*;

b. Foundation systems that require little or no *grading* are encouraged, forcing the architecture to conform to the land rather than the land to conform to the dwelling;

c. *Cut* and *fill* lines delineating the grading activity whereby *cut* areas adjoining next to *fill* areas shall be situated outside of areas where differential settlement is not desirable (e.g., roadways, building pads, driveways, etc.);

d. The balancing of *grading* is the concept to minimize the volume of cubic yards of earth excavated and filled.

2. Contour Grading. This concept results in post-development landforms that exhibit many of the characteristics present within natural landforms. *Contour grading* is typically used in situations where conventional, terraced, grading with benches and *slopes* might be used but a "softened" *grading* look is desired. This would be desirable for areas that are limited in public view (i.e. concealed rear yards).

Typically, *contour grading* can reduce required *cut* and *fill* volumes as compared with traditional, terraced, *grading*. The design elements associated with this type of *grading* include: (See Figure 16.24-14 "Contour Grading")

a. The use of horizontal and vertical curve variations for slope banks creating a curvilinear pattern;

b. Post-development landforms that exhibit natural terrain characteristics (without the heavy modeling effects of *landform grading*);

c. A general rounding of *slopes* at *slope* intersections and transition zones with natural grade;

d. *Pad* configurations that are curvilinear; and

e. *Slopes* that are designed with *contour grading* techniques (e.g., the location of *slopes* behind structure (not in side yards), *slopes* in hidden locations, or *slopes* less than ten feet in height).

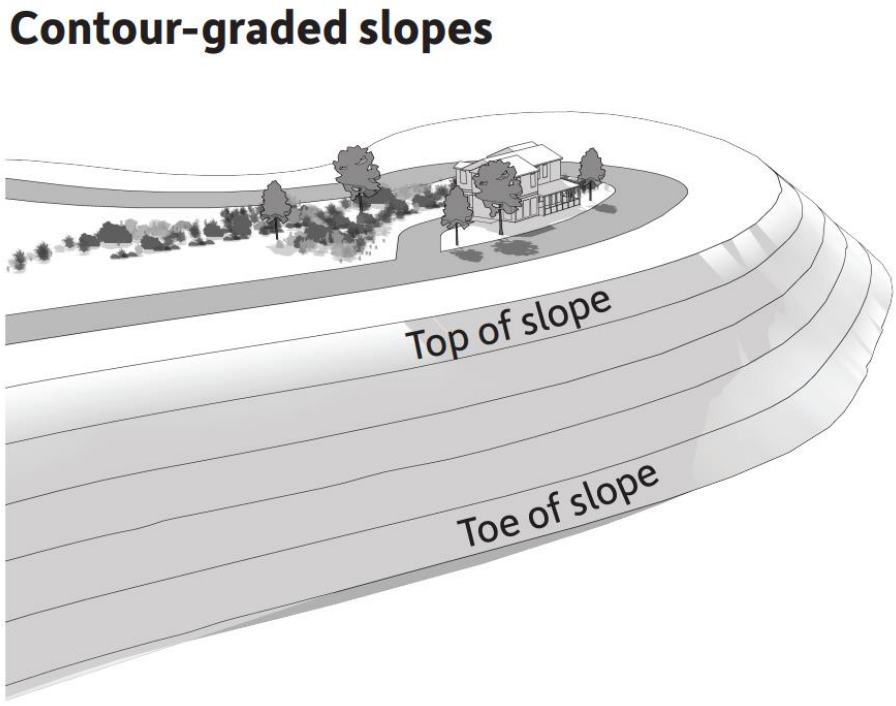


FIGURE 16.24-14
CONTOUR GRADING

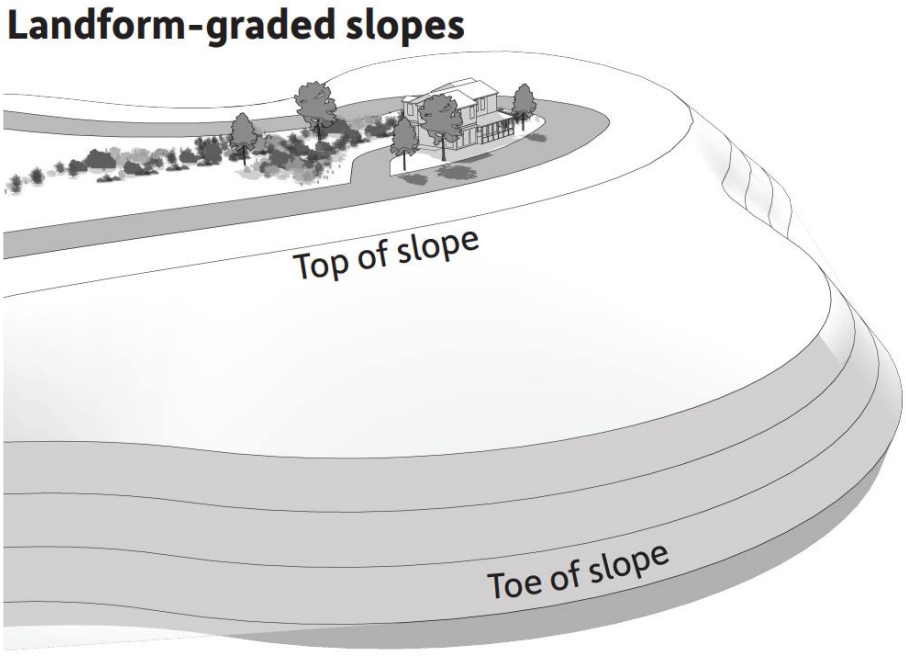


FIGURE 16.24-15
LANDFORM GRADING

3. Landform Grading. Graded *slopes* in this category will replicate the irregular shapes of natural *slopes*. *Landform grading* techniques shall be used whenever *slopes* are created that will be open to public view.

The intent of these *grading* guidelines is to incorporate the basic principles of the *landform grading* concept as the preferred method in the design and construction of hillside development projects. (See Figure 16.24-15 "Landform Grading")

Landform grading techniques shall incorporate the following concepts:

a. Land plans shall flow with the natural topography rather than against it. This means that street patterns and building *pad* configurations shall follow the underlying topographic features rather than cutting across them;

b. Landform graded slopes are characterized by continuous series of concave and convex forms interspersed with mounds that blend into profiles with varying slope gradients and with significant transition zones between man-made and natural slopes;

c. Slope drainage devices either follow natural lines of the slopes or are tucked away in special Swale and berm combinations in order to conceal the drains from view. Exposed segments in visible areas are treated with natural rock for a more aesthetically pleasing appearance;

d. This technique shall be used wherever possible to provide for a variety of slope percentage, slope direction, and topographical detailing in a three-dimensional, undulating pattern similar to existing terrain; and

e. Manufactured *cut* and *fill* slopes in excess of ten feet in height that will be either exposed to permanent public view or are adjacent to environmentally sensitive areas, shall be designed with features characteristic of natural *slopes*. This design shall be implemented, as determined by the *City Engineer* based on the project plans so that the ultimate appearance will resemble a natural slope. This is applicable to, but not limited to, *slopes* along streets, highways, adjacent to parks, schools, open spaces, other public facilities, and other prominent and visible *slopes*.

4. The following *grading* guidelines and techniques serve to implement preferred *landform* grading techniques and help avoid unnecessary *cut* and *fil*l:

a. *Cuts*. When grading into convex landforms (i.e., outward-projecting features), the resulting cuts shall maintain a similarly projecting form and be contoured to blend seamlessly with the undisturbed portions, thereby preserving a natural-appearing landform.

b. Use of variable slope ratios. Because landform grading designs require the use of variable slope ratios, this may result in loss of usable area near building pads. Therefore, only cut slopes may be steeper than 2:1, but not steeper than 1.5:1 and shall meet the following guidelines:

1) A geotechnical engineer shall certify that *slopes* will meet standard stability requirements;
2) A licensed landscape architect shall certify the plantability of the *slopes*, with an emphasis on the *slopes* steeper than 2:1; and

3) The overall ratio from top to toe will be 2:1 or flatter; and
4) Ratios flatter than 2:1 will also be used in the slope design.

c. *Grading* operations shall occur to avoid the rainy season, October fifteenth (15th) to April fifteenth (15th). *Grading* permits shall only be issued when a plan for *erosion* and sediment control has been approved by the *City* without regard to time of year. Additionally, those projects also requiring a Storm Water Pollution Prevention Plan (SWPPP) shall obtain approval of the SWPPP prior to any grading permit issuance.

d. Rounded and smooth transitions shall occur where man-made and natural *slopes* intersect. Where *cut* or *fill* conditions are created, *slopes* shall be varied. The angle of a graded *slope* shall be gradually adjusted to the angle of the natural terrain.

e. Manufactured *slopes* adjacent to roadways shall be consistent with the *landform grading* and revegetation techniques.

f. *Slopes* shall implement drainage measures as detailed within Sub-article 11 of the City of Murrieta Grading Manual.

G. Drainage.

1. Natural drainage courses shall be preserved and enhanced to the maximum extent per the associated National Pollution Discharge Elimination System (NPDES) permit associated with the project site.

2. The NPDES Permit also requires that a project's stormwater runoff be retained on-site through filtration to the maximum extent permitted by State law. Runoff not retained on-site shall be conveyed off-site in accordance with City standards, codes, and policies.

16.24.080 Exceptions.

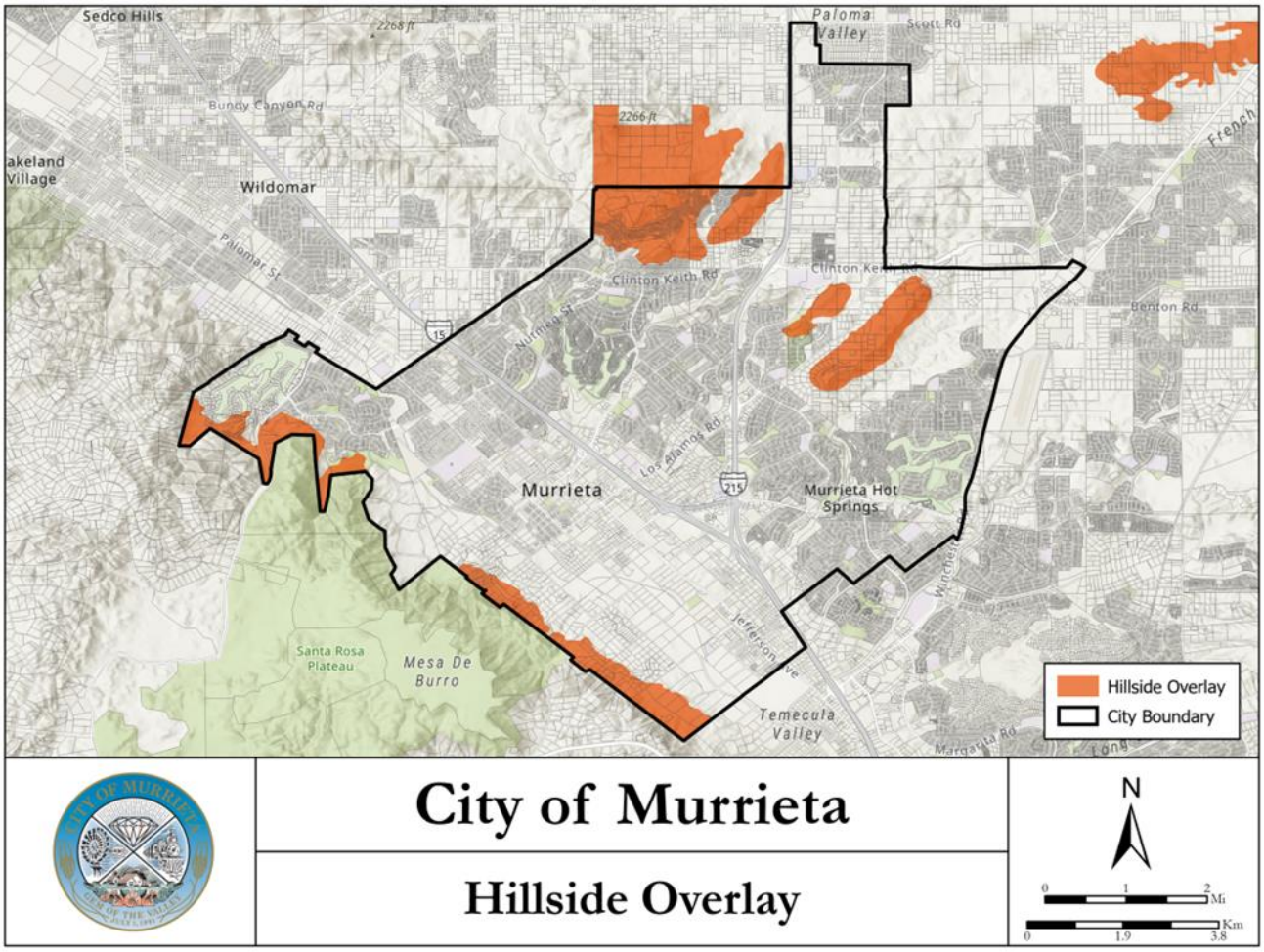
A. Residential Accessory Structures and Accessory Dwelling Units. This Chapter shall not apply to the development of residential accessory structures and accessory dwelling units on parcels with existing development approvals when the new construction:

1. Does not require the use of a retaining wall; and
2. Meets the criteria as described within Section 16.44.150 (Residential Accessory Uses and Structures) and Section 16.44.160 (Accessory Dwelling Units) and Section 16.02.020 (Exemptions from Land Use Permit Requirements).

16.24.090 (Reserved).

Reserved for future updates

16.24.100 Hillside Overlay Map.



A. Refer to the *City's* online Geographic Information System (GIS) as an additional mapping resource for project review.

SECTION 8. Section 16.28.080 (Landscaping Standards) is hereby amended in its entirety to read as follows:

"16.28.080 Landscape Standards.
Landscape areas and materials shall be designed, installed, and maintained in compliance with the following:

A. General Design Standards. The following features shall be incorporated into the design of the proposed landscape and shown on required landscape plans:

1. Landscaping shall be planned as an integral part of the overall project design and not simply located in excess space after parking areas and structures have been planned;

2. Pedestrian access to sidewalks and structures shall be considered in the design of all landscaped areas;

3. Landscape planting shall be provided for all adjacent public rights-of-way, in compliance with Chapter 16.108 (Improvements);

4. With the exception of single-family residential units, landscape adjacent to driveways and parking areas shall be protected from vehicle damage through the provision of minimum six (6) inch high concrete curbs or other types of barriers as approved by the director;

5. Landscaped areas shall not be less than five (5) feet in width, except where determined by the director;

6. Concrete strips, a minimum of four (4) inches in width, shall be provided to separate all turf areas from other landscaped areas, except for single-family residential landscape projects;

7. Permeable surfaces shall be used wherever permissible in place of impervious paving, to encourage on-site water infiltration and support water conservation measures. Permeable surfaces shall be identified on plans; and

8. Protective tree grates shall be provided for trees planted in pedestrian areas, except for single-family residential landscape projects and as determined by the director.

B. Plant Materials. Plant materials shall be selected and installed to comply with the following requirements:
1. A mix of plant materials shall be provided in compliance with the following table (Table 16.28-2). Calculations documenting the required mix shall be shown on the landscape plan;

TABLE 16.28-2 MINIMUM REQUIRED MIX OF PLANT MATERIALS	
Plant Material	**Minimum Required Percentage**
Trees	
Twenty-four (24) inch box	35%*
Fifteen (15) gallon	65%
Shrubs	
Five (5) gallon	70%
One (1) gallon (herbaceous only) with city approval	30%
Groundcover	
Coverage within two (2) years	100%
A greater percentage of specimen trees may be utilized with a corresponding reduction in the number of fifteen- (15-) gallon trees subject to the review of the director.	

2. Trees for shade shall be provided for buildings/structures, as well as for parking lots and open space areas. These trees can be deciduous or evergreen and are to be incorporated to provide natural cooling opportunities for the purpose of energy and water conservation;

3. Trees shall be planted in areas of public view adjacent to and along structures, at an equivalent of at least one (1) tree per thirty (30) linear feet of structure. Other areas shall provide trees at a ratio of one (1) tree for each three hundred (300) square feet of landscaped area. The clustering of trees is encouraged;

4. Mature specimen trees in thirty-six (36) inch and forty-eight (48) inch boxes shall be provided for large projects in sufficient quantity subject to the approval of the Director, to provide variety and emphasis at main focal areas;

5. All trees shall be staked or guyed (on a case-by-case basis) subject to the review of the director and in compliance with city standards;

6. Trees and shrubs shall be planted so that at maturity they do not interfere with service lines and traffic safety sight areas;

7. Trees and shrubs shall be planted and maintained in a manner that protects the basic rights of adjacent property owners, particularly the right to solar access;

8. Trees planted near public sidewalks or curbs shall be of a species and installed in a manner that prevents physical damage to sidewalks, curbs, gutters and other public improvements; and

9. Groundcover shall be of live plant material. Limited quantities of gravel, colored rock, bark, and similar materials may be used in combination with a living groundcover."