

AN ORDINANCE OF THE COUNCIL OF THE CITY OF  
SANTA BARBARA AMENDING APPENDIX J OF  
CHAPTER 22.04 OF THE SANTA BARBARA MUNICIPAL  
CODE REGARDING GRADING REGULATIONS

THE CITY COUNCIL OF THE CITY OF SANTA BARBARA DOES ORDAIN AS  
FOLLOWS:

SECTION 1. Appendix J of Chapter 22.04 of Title 22 of the Santa Barbara  
Municipal Code is amending to read as follows:

**SECTION J101. GRADING GENERAL**

**J101.1 Scope.** The provisions of this Chapter apply to grading, excavation and earthwork construction, including fills and embankments, and the control of grading site runoff, including erosion sediments and construction-related pollutants. The purpose of this appendix is to safeguard life, limb, property and the public welfare by regulating grading on private property. Where technical conflict occur between this Chapter and geotechnical report filed by a licensed civil engineer, the Building Official may allow the geotechnical report to govern.

**J101.2 General Hazards.** Whenever the Building Official determines that any existing excavation or embankment or fill on private property has become a hazard to life and limb, or endangers property, or adversely affects the safety, use or stability of a public way or drainage channel, the owner of the property upon which the excavation or fill is located, or other person or agent in control of said property, upon receipt of notice in writing from the Building Official, shall within the period specified therein repair or eliminate such excavation or embankment to eliminate the hazard and to be in conformance with the requirements of this code.

**J101.3 Safety Precautions.** If at any stage of the work the Building Official determines by inspection that further grading as authorized is likely to endanger any public or private property or result in the deposition of debris on any public way or interfere with any existing drainage course, the Building Official may order the work stopped by notice in writing served on any persons engaged in doing or causing such work to be done, and any such person shall forthwith stop such work. The Building Official may authorize the work to proceed if the Building Official finds adequate safety precautions can be taken or corrective measures incorporated in the work to avoid likelihood of such danger, deposition or interference.

If the grading work, as done, has created or resulted in a hazardous condition, the Building Official shall give written notice requiring correction thereof as specified in California Building Code - Section 114 "Violations" or California Residential Code - Section R113 "Violations". The Building Official may cause the violator to be prosecuted and issue an Administrative Citation without first having to issue a Notice of Violation.

**J101.4 Protection of Utilities.** The owner of any property on which grading has been performed, and which requires a grading permit under Section J103, shall be responsible for the prevention of damage to any public utilities or services.

**J101.5 Protection of Adjacent Property.** The owner of any property on which grading, has been performed and which requires a grading permit under Section J103 is responsible for the prevention of damage to adjacent property and no person shall excavate on land sufficiently close to the property line to endanger any adjoining public street, sidewalk, alley, or other public or private property without supporting and protecting such property from settling, cracking or other damage which might result. Special precautions approved by the Building Official shall be made to prevent imported or exported materials from being deposited on the adjacent public way and/or drainage courses.

**J101.6 Storm Water Control Measures.** The owner of any property on which grading, has been performed shall put into effect and maintain all precautionary measures necessary to protect adjacent water courses and public or private property from damage by erosion, flooding, and deposition of mud, debris, and construction-related pollutants originating from the site during grading and related construction activities as required in Chapter 22.85 and/or any special conditions imposed on a project as a result of the issuance of a discretionary permit by the City.

**J101.7 Maintenance of Protective Devices.** The owner of any property on which grading has been performed pursuant to a permit issued under the provisions of this code, or any other person or agent in control of such property, shall maintain in good condition and repair all drainage structures and other protective devices when they are shown on the grading plans filed with the application for grading permit and approved as a condition precedent to the issuance of such permit.

**J101.8 Conditions of Approval.** In granting any permit under this code, the Building Official may include such conditions as may be reasonably necessary to prevent creation of a nuisance or hazard to public or private property. Such conditions may include, but shall not be limited to:

1. Improvement of any existing grading to comply with the standards of this code.
2. Requirements for fencing of excavations or fills which may otherwise be hazardous.
3. Storm water pollution prevention control measures beyond those required by Section J101.6 of this Appendix J.

## **SECTION J102 DEFINITIONS**

**J102.1 Definitions.** For the purposes of this appendix Chapter, the terms, phrases and words listed in this Section and their derivatives shall have the indicated meanings.

**APPROVAL** shall mean that the proposed work or completed work conforms to this Chapter to the satisfaction of the Building Official.

**AS-GRADED** is the extent of surface conditions on completion of the approved grading project.

**BEDROCK** is in-place solid rock that is the relatively solid, undisturbed rock in place either at the ground surface or beneath superficial deposits of alluvium, colluvium and/or soil.

**BENCH** is a relatively level step excavated into earth material on which fill is to be placed.

**BEST MANAGEMENT PRACTICE (BMP)** is a storm water pollution mitigation measure which is required to be employed in order to comply with the requirements of the NPDES permit issued to the City of Santa Barbara by the California Regional Water Quality Control Board.

**BORROW** is earth material acquired from an off-site location for use in grading on a site.

**CIVIL ENGINEER** is a professional engineer registered in the state to practice in the field of civil works.

**CIVIL ENGINEERING** is the application of the knowledge of the forces of nature, principles of mechanics and the properties of materials to the evaluation, design and construction of civil works.

**COMPACTION** is the densification of a fill by mechanical means.

**CUT** See Excavation.

**DESILTING BASINS** are physical structures, constructed to allow the removal of sediments from surface water runoff.

**DESIGN ENGINEER** shall mean the civil engineer responsible for the preparation of the grading plans for the site grading work.

**DOWN DRAIN** is a device for collecting water from a swale or ditch located on or above a slope, and safely delivering it to an approved drainage facility.

**EARTH MATERIAL** is any rock, natural soil or fill or any combination thereof.

**ENGINEERING GEOLOGIST** is a geologist experienced and knowledgeable in engineering geology. Shall mean a person holding a valid certificate of registration as a geologist in the specialty of engineering geology issued by the State of California under the applicable provisions of the Geologist and Geophysicist Act of the Business and Professions Code.

**ENGINEERING GEOLOGY** is the application of geologic knowledge and principles in the investigation and evaluation of naturally occurring rock and soil for use in the design of civil works.

**EROSION** is the wearing away of the ground surface as a result of the movement of wind, water or ice.

**EROSION/SEDIMENTATION CONTROL PLAN (ESC)** is a site drawing with details, notes, and related documents that identify the measures taken by the permittee to: (1) control construction-related erosion and prevent construction-related sediment and pollutants from being carried offsite by storm water; and (2) prevent construction-related non-storm water discharges from entering the storm drain system that complies with the latest version of the Building and Safety Division's ESC Policy.

**EXCAVATION** is the removal of earth material by artificial means, also referred to as a cut.

**FIELD ENGINEER** shall mean the civil engineer responsible for performing the functions as set forth in Section J105.4.

**FILL** is the deposition of earth materials by artificial means.

**GEOTECHNICAL ENGINEER** See “soils engineer.”

**GEOTECHNICAL HAZARD** is an adverse condition due to landslide, settlement, and/or slippage. These hazards include loose debris, slope wash, and the potential for mud flows from natural or graded slopes.

**GRADE** is the vertical location of the ground surface.

**GRADE, EXISTING** is the grade prior to grading.

**GRADE, FINISHED** is the final grade of the site that conforms to the approved plan.

**GRADE, ROUGH** is the stage at which the grade approximately conforms to the approved plan.

**GRADING** is an excavation or fill or combination thereof.

**KEY** is a compacted fill placed in a trench excavated in earth material beneath the toe of a slope.

**LANDSCAPE ARCHITECT** shall mean a person who holds a certificate to practice landscape architecture in the State of California under the applicable landscape architecture provisions of Division 3, Chapter 3.5 of the Business and Professions Code.

**LINE** shall refer to horizontal location of the ground surface.

**NATURAL GRADE** is the vertical location of the ground surface prior to any excavation or fill.

**PRIVATE SEWAGE DISPOSAL SYSTEM** is a septic tank with effluent discharging into a subsurface disposal field, into one or more seepage pits or into a combination of subsurface disposal field and seepage pit or of such other facilities as may be permitted.

**PROJECT CONSULTANTS** shall mean professional consultants required by this code which may consist of the design engineer, field engineer, soils engineer, engineering geologist, and architect as applicable to this Chapter.

**PROFESSIONAL INSPECTION** is the inspection required by this code to be performed by the civil engineer, soils engineer or engineering geologist. Such inspections include those performed by persons supervised by such engineers or geologists and shall be sufficient to form an opinion relating to the conduct of the work.

**SITE** is any lot or parcel of land or contiguous combination thereof, under the same ownership, where grading is performed or permitted.

**SLOPE** is an inclined ground surface the inclination of which is expressed as a ratio of horizontal distance to vertical distance.

**SOIL** is naturally occurring superficial deposits overlying bedrock.

**SOILS ENGINEER (GEOTECHNICAL ENGINEER)** is an engineer experienced and knowledgeable in the practice of soils (geotechnical) engineering.

**SOILS ENGINEERING (GEOTECHNICAL ENGINEERING)** is the application of the principals of soil mechanics in the investigation, evaluation and design of civil works involving the use of earth materials and the inspection or testing of construction thereof.

**STORM DRAIN SYSTEM** is a conveyance or system of conveyances, including roads with drainage systems, municipal streets, catch basins, curbs, gutters, pipes, ditches and man-made channels, designed or used for collecting, dissipating, or conveying storm water.

**SURFACE DRAINAGE** shall refer to flows over the ground surface.

**SOIL TESTING AGENCY** is an agency regularly engaged in the testing of soils and rock under the direction of a civil engineer experienced in soil testing.

**TERRACE** a relatively level step constructed in the face of a graded slope for drainage and maintenance purposes.

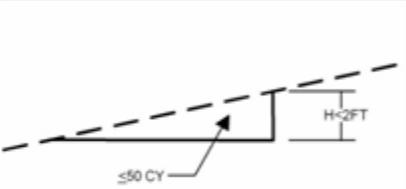
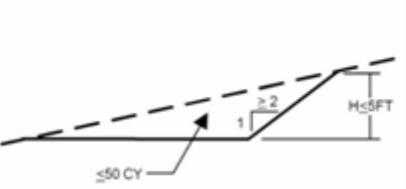
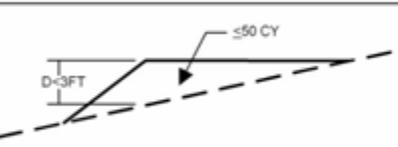
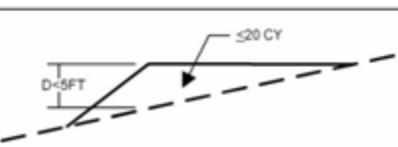
## **SECTION J103 PERMITS REQUIRED**

**J103.1 Permits Required.** Except as exempted in Section J103.2, no grading shall be performed without first having obtained a permit therefore from the Building Official. A grading permit does not include the construction of retaining walls or other structures. A separate permit shall be obtained for each site and may cover both excavations and fills. Any Engineered Grading as described in Section J104 shall be performed by a contractor licensed by the State of California to perform the work described herein. Regular grading less than 5,000 cubic yards may require a licensed contractor if the Building Official determines that special conditions or hazards exist.

**J103.2 Exemptions.** A grading permit shall not be required for the following:

1. When approved by the Building Official, grading in an isolated, self-contained area, provided there is no danger to the public, and that such grading will not adversely affect adjoining properties.
2. Excavation for the construction of a structure permitted under this code.
3. Cemetery graves.
4. Excavations for wells, or trenches for utilities.
5. Exploratory excavations performed under the direction of a Soils Engineer or Engineering Geologist. This shall not exempt grading of access roads or pads created for exploratory excavations. Exploratory excavations must be restored to existing conditions, unless approved by the Building Official.
6. An excavation that is not within a known landslide area and is less than 50 cubic yards (38.3 m<sup>3</sup>) and complies with one of the following conditions:
  - a. Is less than 2 feet (610 mm) in depth, or
  - b. Does not create a cut slope greater than 5 feet (1524 mm) measured vertically upward from the cut surface to the surface of the natural grade and is not steeper than 2 units horizontal to 1 unit vertical (50% slope).
7. A fill not intended to support a structure and that is not within a known landslide area and which does not obstruct a drainage course and complies with one of the following conditions:

- a. Is less than 1 foot (305 mm) in depth and is placed on natural terrain with a slope flatter than 5 units horizontal to 1 unit vertical (20% slope),
- b. Is less than 3 feet (914 mm) in depth at its deepest point measured vertically upward from natural grade to the surface of the fill, and is less than 50 cubic yards and creates a fill slope no steeper than 2 units horizontal to 1 unit vertical (50% slope), or
- c. Is less than 5 feet (1524 mm) in depth at its deepest point measured vertically upward from natural grade to the surface of the fill, and does not exceed 20 cubic yards and creates a fill slope no steeper than 2 units horizontal to 1 unit vertical (50% slope).

EXCAVATIONS		FILLS	
		- NOT INTENDED TO SUPPORT STRUCTURES - DO NOT OBSTRUCT A DRAINAGE COURSE	
AN EXCAVATION WHICH IS LESS THAN 2 FT IN DEPTH AND DOES NOT EXCEED 50CY		FILL PLACED ON NATURAL GRADE NOT STEEPER THAN 5:1 AND LESS THAN 1FT DEEP	
AN EXCAVATION WHICH CREATES A CUT SLOPE NOT GREATER THAN 5FT IN HEIGHT, NOT STEEPER THAN 2:1, AND DOES NOT EXCEED 50CY		FILL LESS THAN 3FT DEEP AT ITS DEEPEST POINT THAT DOES NOT EXCEED 50CY	
		FILL LESS THAN 5FT DEEP AT ITS DEEPEST POINT THAT DOES NOT EXCEED 20CY	

8. Exemption from the permit requirements of this appendix shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this jurisdiction.

**J103.3 Self-Certified Grading in Hillside Design Districts.**

A person proposing to conduct more than 40 CY and less than 50 CY of grading within any contiguous 5-year period, within a Hillside Design District, shall follow the self-certification requirement of this Section for the following types of grading:

- 1. When approved by the Building Official, grading in an isolated, self-contained area, provided there is no danger to the public, and that such grading will not adversely affect adjoining properties.
- 2. Exploratory excavations performed under the direction of a Soils Engineer or Engineering Geologist. This shall not exempt grading of access roads or pads created for exploratory excavations. Exploratory excavations must be restored to existing conditions, unless approved in writing by the Building Official.

3. A total combined excavation, over any 5 year period, that is not within a known landslide area and is less than 50 cubic yards (38.3 m<sup>3</sup>) and complies with one of the following conditions:

- a. Is less than 2 feet (610 mm) in depth, or
- b. Does not create a cut slope greater than 5 feet (1524 mm) measured vertically upward from the cut surface to the surface of the natural grade and is not steeper than 2 units horizontal to 1 unit vertical (50% slope).

4. A total combined fill of not more than 50 CY, over any 5-year period, that is not intended to support a structure and that is not within a known landslide area and which does not obstruct a drainage course and complies with one of the following conditions as depicted in Figure J101:

- a. is less than 1 foot (305 mm) in depth and is placed on natural terrain with a slope flatter than 5 units horizontal to 1 unit vertical in (20% slope),
- b. is less than 3 feet (914 mm) in depth at its deepest point measured vertically upward from natural grade to the surface of the fill, and does not exceed 50 cubic yards and creates a fill slope no steeper than 2 units horizontal to 1 unit vertical (50% slope), or
- c. is less than 5 feet (1524 mm) in depth at its deepest point measured vertically upward from natural grade to the surface of the fill, and does not exceed 20 cubic yards and creates a fill slope no steeper than 2 units horizontal to 1 unit vertical (50% slope).

Self-certification shall be accomplished by completing and submitting the City's most current "Self-Certified Grading" form and paying any applicable self-certification grading project fees to the Building Official before the commencement of grading. In addition, all self-certification must include a declaration under penalty of perjury by the parcel owner or the parcel owner's civil engineer attesting to all of the following:

- a. The total amount of cut and/or fill;
- b. The location where the cut and/or fill occurred; and
- c. That any and all cut and/or fill complies with the requirements of this Section and the City's Municipal Code.

Not less than 20% of the grading performed under this self-certified grading provision shall be verified on site by the Building Official via the random selection of sites and enforcement investigations.

**J 103.3.1 Availability of Self-Certification and/or Permit at Site.**

No person shall perform grading for which a self-certification and/or permit is required under this Chapter unless a copy of the self-certification and/or grading permit with approved grading plans are in the possession of a responsible person and available at the site.

**J103.4 Unpermitted Grading.** A person shall not own, use, occupy or maintain any site containing grading that has been performed in violation of this Code. For the purposes of this Code, unpermitted grading shall be defined as any grading that was performed, at any point in time:

- 1. Without submitting the required self-certification form and any applicable payment(s) prior to commencing grading, and/or
- 2. Without first obtaining the required permit(s) from the Building Official, and/or
- 3. In conflict with the project as described in items 1 & 2 above, and/or

4. In violation of the City Municipal Code.

When the Building Official has reason to believe that any one of the four items above has occurred, the parcel owner may be required to provide the City with one or more topographical surveys prepared by a State licensed professional.

**J103.5 Availability of Permit at Site.** No person shall perform any grading for which a permit is required under this Chapter unless a copy of the grading permit and approved grading plans is in the possession of a responsible person and available at the site.

**J103.6 Grading Plan Review, Inspection and Permit Fees.** Fees shall be assessed in accordance with the provisions set forth in the City of Santa Barbara's most currently adopted fee schedule.

**J103.7 Grading Security.** The Building Official may require a security in such form and amounts as may be deemed necessary to ensure that the work, if not completed in accordance with the approved plans and specifications, will be corrected to eliminate hazardous conditions. If required, a permit shall not be issued for grading unless the owner posts with the Building Official a security in one of the following forms:

1. A bond furnished by a corporate surety authorized to do business in this state.
2. A cash bond.
3. Savings and loan certificates or shares deposited and assigned to the City of Santa Barbara.
4. An instrument of credit from a financial institution subject to regulation by the State or Federal government and pledging that the funds necessary to carry out the grading are on deposit and guaranteed for payment, or a letter of credit issued by such a financial institution.
5. Where unusual conditions or special hazards exist, the Building Official may require security for grading involving less than 1,000 cubic yards (764.6 m<sup>3</sup>). Security required by this Section may include incidental off-site grading on property contiguous with the site to be developed, provided written consent of the owner of such contiguous property is filed with the Building Official.
6. The Building Official may waive the requirements for a security for:
  - a. Grading being done by or for a governmental agency.
  - b. Grading necessary to remove a geotechnical hazard, where such work is covered by an agreement and security posted pursuant to the provisions of the City's "Subdivision Ordinance".
  - c. Minor grading on a site, not exceeding a slope of 3 horizontal to 1 vertical, provided such grading as determined by the Building Official will not affect drainage from or to adjacent properties.
  - d. Filling of holes or depressions, provided such grading will not affect the drainage from or to adjacent properties, or affect a rare, threatened or endangered species or its habitat, or other sensitive habitat.

**J103.7.1 Amount of Security.** The amount of security shall be based on the number of cubic yards of material in either excavation or fill, whichever is greater, plus the cost of all drainage or other protective devices or work necessary to eliminate geotechnical hazards. That portion of the security valuation based on the volume of material in either excavation or fill shall be computed as follows:

1. 100,000 cubic yards or less - 50 percent of the estimated cost of grading work.
2. Over 100,000 cubic yards - 50 percent of the cost of the first 100,000 cubic yards plus 25 percent of the estimated cost of that portion in excess of 100,000 cubic yards.
3. When the rough grading has been completed in conformance with the requirements of this code, the Building Official may at his or her discretion consent to a proportionate reduction of the security to an amount estimated to be adequate to ensure completion of the grading work, site development or planting remaining to be performed. The costs referred to in this Section shall be as estimated by the Building Official.

**J103.7.2 Conditions.** All security shall include the conditions that the principal shall:

1. Comply with all of the provisions of this code, applicable laws, and ordinances;
2. Comply with all of the terms and conditions of the grading permit; and
3. Complete all of the work authorized by the permit.

**J103.7.3 Term of Security.** The term of each security shall begin upon the filing thereof with the Building Official and the security shall remain in effect until the work authorized by the grading permit is completed and approved by the Building Official.

**J103.7.4 Default Procedures.** In the event the owner or the owner's agent shall fail to complete the work or fail to comply with all terms and conditions of the grading permit, it shall be deemed a default has occurred. The Building Official shall give notice thereof to the principal and security or financial institution on the grading permit security, or to the owner in the case of a cash deposit or assignment, and may order the work required to complete the grading in conformance with the requirements of this code be performed. The surety or financial institution executing the security shall continue to be firmly bound under an obligation up to the full amount of the security, for the payment of all necessary costs and expenses that may be incurred by the Building Official in causing any and all such required work to be done. In the case of a cash deposit or assignment, the unused portion of such deposit or funds assigned shall be returned or reassigned to the person making said deposit or assignment.

**J103.7.5 Right of Entry.** The Building Official or the authorized representative of the surety company or financial institution shall have access to the premises described in the permit for the purpose of inspecting the work.

In the event of default in the performance of any term or condition of the permit, the surety or financial institution or the Building Official, or any person employed or engaged in the behalf of any of these parties, shall have the right to go upon the premises to perform the required work.

The owner or any other person who interferes with or obstructs the ingress to or egress from any such premises, of any authorized representative of the surety or financial institution or of the City of Santa Barbara engaged in the correction or completion of the work for which a grading permit has been issued, after a default has occurred in the performance of the terms or conditions thereof, is guilty of a misdemeanor.

## **SECTION J104 PERMIT APPLICATION AND SUBMITTALS**

**J104.1 Submittal Requirements.** In addition to the provisions of Sections J106 and J107, the applicant shall state the estimated quantities of excavation and fill.

**J104.2 Site Plan Requirements.** In addition to the provisions of Section J106, a grading plan shall show the existing grade and finished grade in contour intervals of sufficient clarity to indicate the nature and extent of the work and show in detail that it complies with the requirements of this code. The plans shall show the existing grade on adjoining properties in sufficient detail to identify how grade changes will conform to the requirements of this code.

**J104.2.1 Grading Designation.** Grading in excess of 5,000 cubic yards or for the support of a structure shall be performed in accordance with the approved grading plan prepared by a civil engineer, and shall be designated as “engineered grading.” Grading involving less than 5,000 cubic yards (3825 m<sup>3</sup>) shall be designated “regular grading” unless the permittee chooses to have the grading performed as engineered grading, or the Building Official determines that special conditions or unusual hazards exist, in which case grading shall conform to the requirements for engineered grading.

**J104.2.2 Regular Grading Requirements.** In addition to the provisions of Section J106 and Section J104.2, an application for a regular grading permit shall be accompanied by three sets of plans in sufficient clarity to indicate the nature and extent of the work. The plans and specifications shall be prepared and signed by an individual licensed by the state to prepare such plans or specifications.

Plans shall be drawn to scale and shall be of sufficient clarity to indicate the nature and extent of the work proposed and show in detail that they will conform to the provisions of this code and all relevant laws, ordinances, rules and regulations. Each sheet of each set of plans shall give location of the work, the name and address of the owner, and the person by whom they were prepared.

The plans shall include, but shall not be limited to, the following information:

1. A vicinity map showing the proposed site.
2. Property limits and accurate contours of existing ground and details of terrain and area drainage.
3. Limiting dimensions, elevations or finish contours to be achieved by the grading, and proposed drainage channels and related construction.
4. Location of any buildings or structures on the property where the work is to be performed and the location of any buildings or structures on land of adjacent owners that are within 100 feet of the property in any direction.

5. Erosion/sedimentation, all relevant storm water pollution prevention measures, and dust control provisions are required to be shown on the grading plan in accordance with the requirements of Sections J110, J111 and 112 of this appendix.

**J104.2.3 Engineered Grading Requirements.** In addition to the provisions of Sections J104.2 and J106, an application for an engineered grading permit shall be accompanied by specifications and supporting data consisting of a soils engineering report and engineering geology report. The plans and specifications shall be prepared and signed by an individual licensed by the state to prepare such plans or specifications when required by the Building Official.

Specifications shall contain information covering construction and material requirements.

Plans shall be drawn to scale and shall be of sufficient clarity to indicate the nature and extent of the work proposed and show in detail that they will conform to the provisions of this code and all relevant laws, ordinances, rules and regulations. Each plan drawing shall give location of the work, the name and address of the owner, and the person by whom they were prepared. In addition to the plans required for Regular Grading Permits, the plans for Engineered Grading Permits shall include, but shall not be limited to, the following information:

6. Detailed plans of all surface and subsurface drainage devices, walls, cribbing, dams and other protective devices to be constructed with, or as a part of, the proposed work, together with a map showing the drainage area and the estimated runoff of the area served by any drains.

7. Recommendations included in the soils engineering report and the engineering geology report shall be incorporated in the grading plans or specifications. When approved by the Building Official, specific recommendations contained in the soils engineering report and the engineering geology report, which are applicable to grading, may be included by reference.

8. The dates of the soils engineering and engineering geology reports together with the names, addresses and phone numbers of the firms or individuals who prepared the reports.

9. A statement of the quantities of material to be excavated and/or filled and the amount of such material to be imported to, or exported from the site.

10. A statement of the estimated starting and completion dates for work covered by the permit.

11. The Civil Engineer responsible for plan preparation shall sign the following statement on the plans:

"I certify that I will be responsible for this grading in accordance with Chapter of the Building Code to include incorporating all recommendations of the Soils Engineer, report and be responsible for professional inspection and approval of the grading. This shall include, but not be Limited to, inspection and approval as to the establishment of line grade and drainage of development area. I will also be responsible for the preparation of revised plans and the submission of 'AS GRADED' grading plans upon the completion of the work.

12. Erosion/sedimentation, storm water, and dust control provisions are required to be shown on the grading plan in accordance with the requirement of Sections J110, J111 and J112 of this appendix.

13. A drainage plan for that portion of a lot or parcel to be utilized as a building site (building pad), including elevations of floors with respect to finish site grade and locations of proposed stoops, slabs and fences that may affect drainage.

14. Location and type of any proposed private sewage disposal system.

15. Location of existing utilities and drainage facilities and recorded easements (public and private).

16. Location of all flood zones as designated and defined in Title 44, Code of Federal Regulations.

**J104.3 Soils Engineering Report.** The soils engineering report required by Section J104.2.2 shall include data regarding the nature, distribution and strength of existing soils, conclusions and recommendations for grading procedures and design criteria for corrective measures, including buttress fills, when necessary, and opinion on adequacy for the intended use of sites to be developed by the proposed grading as affected by soils engineering factors, including the stability of slopes. All reports shall conform with the requirements of this Code and shall be subject to review by the Building Official. Supplemental reports and data may be required as the Building Official may deem necessary. Recommendations included in the reports and approved by the Building Official shall be incorporated in the grading plan or specifications.

**J104.4 Engineering Geology Report.** The engineering geology report required by Section J104.2.2 shall include an adequate description of the geology of the site, conclusions and recommendations regarding the effect of geologic conditions on the proposed development, and opinion on the adequacy for the intended use of sites to be developed by the proposed grading, as affected by geologic factors. The engineering geology report shall include a geologic map and cross sections utilizing the most recent grading plan as a base. All reports shall conform with the requirements of this Code and shall be subject to review by the Building Official. Supplemental reports and data may be required as the Building Official may deem necessary. Recommendations included in the reports and approved by the Building Official shall be incorporated in the grading plan or specifications.

**Exception:** A soils engineering or engineering geology report is not required where the Building Official determines that the nature of the work applied for is such that a report is not necessary.

**J104.5 Liquefaction Study.** A geotechnical investigation may be required when the proposed work is a "Project" as defined in California Public Resources Code Section 2693, and is located in an area designated as a "Seismic Hazard Zone" as defined in Title 14, Section 3722 of California Code of Regulations on Seismic Hazard Zone Maps issued by the State Geologist under Public Resources Code Section 2696.

**Exception:** A liquefaction study is not required where the Building Official determines from established local data that the liquefaction potential is low.

## **SECTION J105 INSPECTION**

**J105.1 General.** Grading inspections shall be governed by Section J105 of this Appendix J as indicated herein and by the Santa Barbara Municipal Code 22.85 (Erosion and Sedimentation Control Standards for Construction) and 22.87 (Storm Water Management). Grading operations for which a permit is required shall be subject to inspection by the Building Official, City Creeks Division and/or the City Engineer depending upon the hazards that the grading presents. Private professional inspection of grading operations shall be provided by a licensed Civil Engineer, Soils Engineer and/or the Engineering Geologist retained to provide such services in accordance with this Section for engineered grading and as required by the Building Official.

All field inspections of grading that are recommended by the Project Engineer or required by the Building Official shall be specifically called out on the cover sheet of the plans where the other special inspections are noted.

**J105.2 Special and Supplemental Inspections.** The special inspection requirements of Section 1704 shall apply to work performed under a grading permit where required by the Building Official. In addition to the called inspections specified in Section J105, the Building Official may make such other inspections as may be deemed necessary to determine that the work is being performed in conformance with the requirements of this code. Investigations and reports by an approved soil testing agency, Soils Engineer and/or Engineering Geologist, and Field Engineer may be required. Inspection reports shall be provided when requested by the Building Official.

Inspection of drainage devices by the Field Engineer in accordance with this Section may be required when the Building Official determines the drainage devices are necessary for the protection of the structures in accordance with this code.

**J105.3 Field Engineer Inspections.** When required, the field engineer shall provide professional inspection within such engineer's area of technical specialty, oversee and coordinate all field surveys, set grade stakes, and provide site inspections during grading operations to ensure the site is graded in accordance with the approved grading plan and the appropriate requirements of this code. During site grading, and at the completion of both rough grading and final grading, the field engineer shall submit statements and reports required by Sections J105.11 and J105.12. If revised grading plans are required during the course of the work, they shall be prepared by a Civil Engineer and submitted to the Building Official for review and approval by the Building Official.

**J105.4 Soils Engineer Inspections.** When required, the Soils Engineer shall provide professional inspection within such engineer's area of technical specialty, which shall include observation during grading and testing for required compaction. The Soils Engineer shall provide sufficient observation during the preparation of the natural ground and placement and compaction of the fill to verify that such work is being performed in accordance with the conditions of the approved plan and the appropriate requirements of this Chapter. Revised recommendations relating to conditions differing from the approved soils engineering and engineering geology reports shall be submitted to the permittee, the Building Official and the Field Engineer.

**J105.5 Engineering Geologist Inspection.** When required, the Engineering Geologist shall provide professional inspection within such engineer's area of technical

specialty, which shall include professional inspection of the bedrock excavation to determine if conditions encountered are in conformance with the approved report. Revised recommendations relating to conditions differing from the approved engineering geology report shall be submitted to the soils engineer.

**J105.6 Permittee.** The permittee shall be responsible for the work to be performed in accordance with the approved plans and specifications and in conformance with the provisions of this code. The permittee shall engage project consultants, if required, to provide professional inspections on a timely basis. The permittee shall act as a coordinator between the project consultants, the contractor and the Building Official. In the event of changed conditions, the permittee shall be responsible for informing the Building Official of such change and shall provide revised plans for approval.

**J105.7 Building Official Inspections.** The Building Official shall be called to inspect the project site at the stages of work shown below. Failure to obtain City inspection approval before covering the work may result in any or all of the following: Issuance of an administrative citations without first having to issue a notice of violation, re-inspection fees, and/or excavation/uncovering of the uninspected work.

1. Pregrade. Before any construction or grading activities occur at the site; the permittee shall schedule a pre-grade inspection with the Building Official. The permittee is responsible for coordinating that all project consultants are present at the pre-grade inspection. All pre-grading storm water pollution prevention and erosion/sedimentation measures must be in place and ready for inspection.

2. Initial. When the site has been cleared of vegetation and unapproved fill and it has been scarified, benched or otherwise prepared for fill. No fill shall have been placed prior to this inspection. All storm water pollution prevention and erosion/sedimentation measures shall be updated and installed.

3. Rough. When approximate final elevations have been established; drainage terraces, swales and other drainage devices necessary for the protection of the building sites from flooding are installed; berms installed at the top of the slopes; and the statements required by Section J105.12 have been received.

4. Interim. The permit applicant shall request inspections from the City prior to covering elements of the permanent (post-construction) storm water pollution prevention system(s).

5. Final. When grading has been completed; all drainage devices necessary to drain the building pad and project site are installed; slope planting established, irrigation systems installed; and the as-graded plans and required statements and reports have been submitted and stamped approved by the Building Official.

**J105.8 Notification of Non-compliance.** If, in the course of fulfilling their respective duties under this Chapter, the Field Engineer, the Soils Engineer or the Engineering Geologist finds that the work is not being done in conformance with this Chapter or the approved grading plans, the discrepancies and corrective measures which should be taken shall be reported immediately in writing to the permittee and to the Building Official.

**J105.9 Transfer of Responsibility.** If the Field Engineer, the Soils Engineer, or the Engineering Geologist of record is changed during grading, the work shall be stopped until the replacement has agreed in writing to accept their responsibility within the area of technical competence for approval upon completion of the work. It shall be the duty of the permittee to notify the Building Official in writing of such change prior to the recommencement of such grading.

**J105.10 Non-Inspected Grading.** No person shall own, use, occupy or maintain any non-inspected grading. For the purposes of this code, non-inspected grading shall be defined as any grading for which a grading permit was first obtained, pursuant to Section J103, supra, but which has progressed beyond any point requiring inspection and approval by the Building Official without such inspection and approval having been obtained.

**J105.11 Routine Field Inspections and Reports.** Unless waived by the Building Official, routine inspection reports shall be provided by the Field Engineer for all engineered grading projects. The Field Engineer shall file these reports, with the Building Official as follows:

1. Bi-weekly during all times when grading of 400 cubic yards or more per week is active on the site;
2. Monthly, at all other times; and
3. At any time when requested in writing by the Building Official.

Such reports shall certify to the Building Official that the Field Engineer has inspected the grading site and related activities and has found them in compliance with the approved grading plans, the building code, grading permit conditions, storm water pollution prevention measures, and other applicable ordinances and requirements.

**J105.12 Completion of Work.** Upon completion of the rough grading work and at the final completion of the work, the following reports and drawings and supplements thereto are required to be delivered to the Building Official before final inspection approval:

1. An as-built grading plan prepared by the Field Engineer retained to provide such services in accordance with Section J105.3 showing all plan revisions as approved by the Building Official. This shall include original ground surface elevations, as-graded ground surface elevations, lot drainage patterns, and the locations and elevations of surface drainage facilities, all installed components of post-construction storm water pollution prevention systems, and the outlets of subsurface drains. Post-construction storm water pollution prevention system components can also be certified by the project Qualified Storm Water Developer (QSD) and forwarded to the City by the Field Engineer. As-constructed locations, elevations and details of subsurface drains shall be shown as reported by the soils engineer.
2. The Field Engineer shall state in a report to the Building Official, that to the best of their knowledge, the grading work was done in accordance with the final, City approved, grading plan.
3. A report shall be prepared by the Soils Engineer, retained to provide such services in accordance with Section J105.4. That report shall include:

- a. Locations and elevations of field density tests,
- b. Summaries of field and laboratory tests,
- c. Other substantiating data,
- d. Comments on any changes made during grading and their effect on the recommendations made in the approved soils engineering investigation report,
- e. A statement that, to the best of their knowledge, the work within their area of responsibilities is in accordance with the approved soils engineering report and applicable provisions of this Chapter. The report shall contain a finding regarding the safety of the completed grading and any proposed structures subject to a known landslide, settlement, or slippage hazard.

4. A report shall be prepared by the Engineering Geologist, retained to provide such services in accordance with Section J105.5. That report shall include:

- a. A final description of the geology of the site,
- b. Any new information disclosed during the grading and the effect of same on recommendations incorporated in the approved grading plan and their anticipated effect on any post-construction storm water pollution prevention system(s),
- c. A statement that, to the best of their knowledge, the grading work is in accordance with the approved engineering geologist report, applicable provisions of this Chapter, and any City approved as-built plans and specifications.

**J105.13 Notification of Completion.** The permittee shall notify the Building Official when the grading operation is ready for final inspection. Final approval shall not be given until all work, including installation of all drainage facilities and their protective devices, and all erosion-control measures have been completed in accordance with the final approved grading plan, and the required reports have been submitted and approved.

## **SECTION J106 EXCAVATIONS**

**J106.1 General.** Unless otherwise recommended in the approved soils engineering or engineering geology report, cuts shall conform to the provisions of this Section.

In the absence of an approved soils engineering or engineering geology report, these provisions may be waived, as approved by the Building Official, for minor cuts not intended to support structures nor subject to a surcharge.

**J106.2 Maximum Slope.** The slope of cut surfaces shall be no steeper than is safe for the intended use and shall be no steeper than 2 units horizontal in 1 unit vertical (50% slope) unless the permittee furnishes a soils engineering or an engineering geology report, or both, stating that the site has been investigated and giving an opinion that a cut at a steeper slope will be stable and not create a hazard to public or private property in conformance with the requirements of Section J111. The Building Official may require the excavation to be made with a cut face flatter in slope than 2 units horizontal to 1 unit vertical if the Building Official finds it necessary for stability and safety.

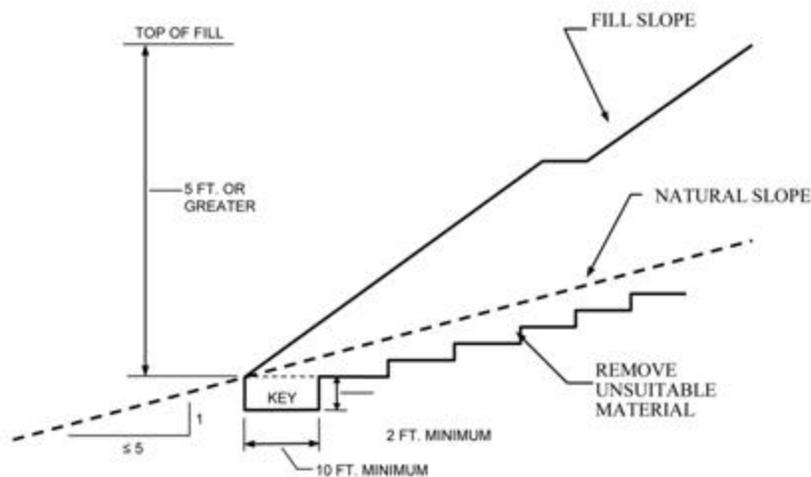
**J106.3 Slope Surface Protection.** All slopes must be stabilized against surface erosion. Stabilization may be accomplished through the application of erosion control blankets, soil stabilizers or other means as approved by the Building Official.

**J106.4 Drainage.** Drainage, including drainage terraces and overflow protection, shall be provided as required by Section J109.

## SECTION J107 FILLS

**J107.1 General.** Unless otherwise recommended in the approved soils engineering report, fills shall conform to the provisions of this Section. In the absence of an approved soils engineering report and if approved by the Building Official, these provisions may be waived for minor fills not intended to support structures.

**J107.2 Preparation of Ground.** Fill slopes shall not be constructed on natural slopes steeper than 2 units horizontal in 1 unit vertical (50% slope). The ground surface shall be prepared to receive fill by removing vegetation, non-complying fill, topsoil and other unsuitable materials scarifying to provide a bond with the new fill and, where slopes are steeper than 5 units horizontal in 1 unit vertical (20% slope) and the height is greater than 5 feet, benching into sound bedrock or other competent material shall be provided as a minimum in accordance with Figure J107.2 or as determined by the soils engineer. The bench under the toe of a fill on a slope steeper than 5 units horizontal in 1 unit vertical (20% slope) shall be at least 10 feet wide. The area beyond the toe of fill shall be sloped for sheet overflow or a paved drain shall be provided. When fill is to be placed over a cut, the bench under the toe of fill shall be at least 10 feet wide but the cut shall be made before placing the fill and acceptance by the Soils Engineer or Engineering Geologist or both as a suitable foundation for fill.



**FIGURE J107.2 BENCHING DETAILS**

**J107.3 Subdrains.** Except where recommended by the Soils Engineer or Engineering Geologist as not being necessary, subdrains shall be provided under all fills placed in natural drainage courses and in other locations where seepage is evident. Such sub-drainage systems shall be of a material and design approved by the Soils Engineer and acceptable to the Building Official, City Engineer and/or City Creeks Division Manager according to the relevant hazards present. The permittee shall provide continuous inspection during the process of subdrain installation to conform with approved plans and Engineering Geologist's and Soils Engineer's recommendation. Such inspection shall be done by the soil testing agency. The location of the subdrains shall be

shown on a plan by the Soils Engineer. Excavations for the subdrains shall be inspected by the Engineering Geologist when such subdrains are included in the recommendations of the Engineering Geologist.

**J107.4 Fill Material.** Detrimental amounts of organic material shall not be permitted in fills. Unless approved by the Building Official, no rock or similar irreducible material with a maximum dimension greater than 12 inches shall be buried or placed in fills.

**EXCEPTION:** The Building Official may permit placement of larger rock when the soils engineer properly devises a method of placement, and continuously inspects its placement and approves the fill stability. The following conditions shall also apply:

1. Prior to issuance of the grading permit, potential rock disposal areas shall be delineated on the grading plan.
2. Rock sizes greater than 12 inches in maximum dimension shall be 10 feet or more below grade, measured vertically.
3. Rocks shall be placed so as to assure filling of all voids with well-graded soil.
4. The reports submitted by the soils engineer shall acknowledge the placement of the oversized material and whether the work was performed in accordance with the engineer's recommendations and the approved plans.
5. The location of oversized rock dispersal areas shall be shown on the as-built plan.

**J107.5 Compaction.** All fills shall be compacted to a minimum of 90 percent of maximum density. Fills shall be compacted throughout their full extent to a minimum relative compaction of 90 percent of maximum dry density within 40 feet below finished grade and 93 percent of maximum dry density deeper than 40 feet below finished grade, unless a lower relative compaction (not less than 90 percent of maximum dry density) is justified by the soils engineer. The relative compaction shall be determined by A.S.T.M. soil compaction test D1557 where applicable. Where not applicable, a test acceptable to the Building Official shall be used, unless the owner furnishes a soils engineering report conforming with the requirements of Section J104.3, stating that the site has been investigated and giving an opinion that a fill at a steeper slope will be stable and not create a hazard to public or private property. Substantiating calculations and supporting data may be required where the Building Official determines that such information is necessary to verify the stability and safety of the proposed slope. The Building Official may require the fill slope be constructed with a face flatter in slope than two horizontal to one vertical if the Building Official finds it necessary for stability and safety.

Field density shall be determined by the Sand Cone Method unless another method is specifically required by the Civil Engineer of record or the City official responsible for public safety.

Fill slopes steeper than 2 units horizontal to 1 unit vertical shall be constructed by the placement of soil a sufficient distance beyond the proposed finish slope to allow compaction equipment to operate at the outer surface limits of the final slope surface. The excess fill shall be removed prior to completion or rough grading. Other construction procedures may be utilized when it is first shown to the satisfaction of the Building Official

that the angle of slope, construction method and other factors will accomplish the intent of this Section.

**J107.4 Maximum Slope.** The slope of fill surfaces shall be no steeper than is safe for the intended use. Fill slopes shall be no steeper than 2 units horizontal in 1 unit vertical (50% slope).

**J107.5 Slopes to Receive Fill.** Where fill is to be placed above the top of an existing slope steeper than 3 units horizontal to 1 unit vertical, the toe of the fill shall be set back from the top edge of the slope a minimum distance of 6 feet measured horizontally or such other distance as may be specifically recommended by a Soil Engineer or Engineering Geologist and approved by the Building Official.

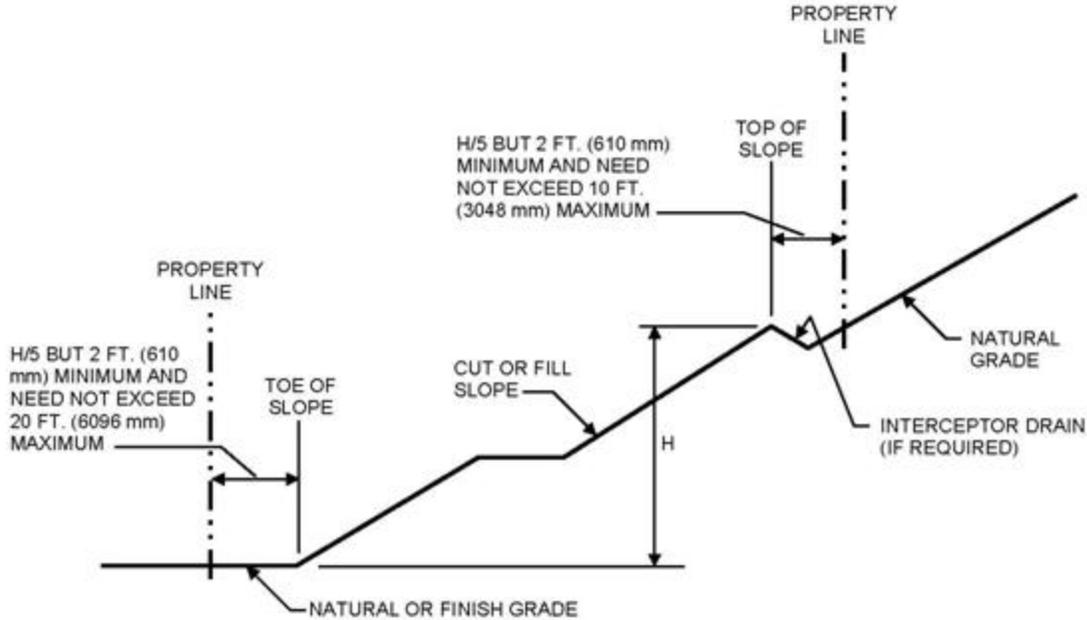
**J107.6 Inspection of Fill.** For engineered grading, the Soils Engineer shall provide sufficient inspections during the preparation of the natural ground and the placement and compaction of the fill to be satisfied that the work is being performed in accordance with the conditions of plan approval and the appropriate requirements of this Chapter. In addition to the above, the Soils Engineer shall be present during the entire fill placement and compaction of fills that will exceed a vertical height or depth of 30 feet (9144 mm) or result in a slope surface steeper than 2 units horizontal to 1 unit vertical.

**J107.6 Testing of Fills.** Sufficient tests of the fill soils shall be made to determine the density thereof and to verify compliance of the soil properties with the design requirements, including soil types and shear strengths in accordance with the standards established by the Civil Engineer of record and approved by the Building Official.

## **SECTION J108 SETBACKS**

**J108.1 General.** Cut and fill slopes shall be set back from the property lines in accordance with this Section. Setback dimensions shall be horizontal distances measured perpendicular to the property line and shall be as shown in Figure J108.1, unless substantiating data is submitted justifying reduced setbacks.

**J108.2 Top of Slope.** The setback at the top of a cut slope shall not be less than that shown in Figure J108.1, or than is required to accommodate any required interceptor drains, whichever is greater.



**FIGURE J108.1**  
**DRAINAGE DIMENSIONS**

**J108.3 Toe of Fill Slope.** The toe of fill slope shall be made not nearer to the site boundary line than one half the height of the slope with a minimum of 2 feet (610 mm) and a maximum of 20 feet (6096 mm). Where required to protect adjacent properties at the toe of a slope from adverse effects of the grading, additional protection, approved by the Building Official, shall be included. Such protection may include but shall not be limited to:

1. Setbacks greater than those required by Figure J108.1.
2. Provisions for retaining walls or similar construction.
3. Erosion protection of the fill slopes.
4. Provision for the control of surface waters.

**J108.4 Alternate Setbacks.** The Building Official may approve alternate setbacks. The Building Official may require an investigation and recommendation by a qualified Civil Engineer or Geologist to demonstrate that the intent of this Section has been satisfied.

## **SECTION J109 DRAINAGE AND TERRACING**

**J109.1 General.** Unless otherwise recommended by a registered design professional, and approved by the Building Official, drainage facilities and terracing shall be provided in accordance with the requirements of this Section and Santa Barbara Municipal Code 22.87 (Storm Water Management).

**Exception:** Drainage facilities and terracing only need not be provided where the ground slope is not steeper than 3 horizontal to 1 vertical (33 percent). Compliance with Santa Barbara Municipal Code 22.87 remains applicable.

**J109.2 Drainage Terraces.** Drainage terraces and their drainage systems shall be designed by a licensed Civil Engineer and approved by the Building Official. Suitable access shall be provided to permit proper cleaning and maintenance. Downdrains and drainage outlets shall be of approved materials and of adequate capacity to convey the intercepted waters to the point of disposal as defined in Section J109.5.

**J109.3 Interceptor Drains and Overflow Protection.** Berms, interceptor drains or other devices shall be provided at the top of cut or fill slopes to prevent surface waters from overflowing onto and damaging the face of a slope. Discharge from the drain shall not create a nuisance condition.

**J109.4 Drainage Across Property Lines.** Surface drainage across property lines shall not exceed that which existed prior to grading. Excess or concentrated drainage shall be contained on site or directed to an approved drainage facility. Erosion of the ground in the area of discharge shall be prevented by installation of non-erosive down drains or other devices.

**J109.5 Disposal.** All drainage facilities shall be designed in accordance with J109.5 and Chapters 22.85 and 22.87 of this Code. Erosion of ground in the area of discharge shall be prevented by installation of non-erosive down drains or other devices. De-silting basins, filter barriers or other methods, as approved by the Building Official and/or the Public Works Director, shall be utilized to remove sediments from surface waters before such waters are allowed to enter streets, storm drains or natural watercourses. If the drainage device discharges onto natural ground, riprap or a similar energy dissipater may be required.

Building pads shall have a drainage gradient of 2 percent toward approved drainage facilities, a public street or drainage structure approved to receive storm waters unless waived by the Building Official. A lesser slope may be approved by the Building Official for sites graded in relatively flat terrain, or where special drainage provisions are made, when the building official finds such modification will not result in unfavorable drainage conditions.

## **SECTION J110 SLOPE PLANTING AND EROSION CONTROL**

**J110.1 General.** Under no circumstances will the observable erosion of one parcel be allowed to enter the boundaries of another parcel or public way. The faces of cut and fill slopes shall be prepared and maintained to control erosion. This control shall consist of effective planting, erosion control blankets, soil stabilizers or other means as approved by the Building Official.

**Exception:** Erosion control measures need not be provided on cut slopes not subject to erosion due to the erosion-resistant character of the materials as determined by the project Geologist and approved by the Building Official.

## **SECTION J111 NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) COMPLIANCE**

**J111.1 General.** All grading plans and permits shall comply with the provisions of this Section for NPDES compliance including the owner of any property on which grading has been performed and which requires a grading permit under Section J103.

**J111.2 Erosion/Sedimentation Control Plan (ESCP).** No grading permit shall be issued unless the plans for such work include an Erosion/Sedimentation Control Plan, that conforms to the Erosion/Sedimentation Control Policy of the City of Santa Barbara's Building and Safety Division, with details of best management practices, including desilting basins or other temporary drainage or control measures, or both, as may be necessary to control construction-related pollutants which originate from the site as a result of construction related activities. Sites which have been graded and which requires a grading permit under Section J103 are subject to penalties and fines per Section J111.4.

All best management practices shall be installed before grading begins. As grading progresses, all best management practices shall be updated as necessary to prevent erosion and control constructed related pollutants from discharging from the site. All best management practices shall be maintained in good working order to the satisfaction of the Building Official unless final grading approval has been granted by the Building Official and all permanent drainage and erosion control systems, if required, are in place.

**J111.4 Erosion/Sedimentation Control Plan, Effect of Noncompliance.** Should the owner fail to install the best management practices required by Section J111.2, it shall be deemed that a default has occurred under the conditions of the grading permit security. Thereupon, the Building Official may enter the property for the purpose of installing, by City forces or by other means, the drainage, erosion control and other devices shown on the approved plans, or if there are no approved plans, as the Building Official may deem necessary to protect adjoining property from the effects of erosion, flooding, or the deposition of mud, debris or constructed related pollutants, or the Building Official may cause the owner to be prosecuted as a violator of this Code or may take both actions. The Building Official shall have the authority to issue administrative penalties pursuant to as Santa Barbara Municipal Code Chapter 1.25 upon determining that the site is non-compliant. Payment of penalty shall not relieve any persons from fully complying with the requirements of this Code in the execution of the work.

If the best management practices for storm water pollution prevention are not installed as prescribed in Section J111.2 and approved by the Building Official, the following penalties shall be imposed:

Grading Permit Volume Penalty:

1—10,000 cubic yards (1—7645.5 m<sup>3</sup>) = \$500.00 per day per violation

10,001—100,000 cubic yards (7646.3—76455 m<sup>3</sup>) = \$750.00 per day per violation

More than 100,000 cubic yards (76455 m<sup>3</sup>) = \$1,000.00 per day per violation

NOTE: See Section J108 for inspection request requirements.

## **SECTION J112 DUST CONTROL**

Santa Barbara County Air Pollution Control District's dust control measures identified as "Construction Impact Mitigation: PM10 Mitigation Measures" in SBCAPCD's "Scope and Content of Air Quality Sections in Environmental Documents" shall be adhered to during all ground disturbing activities.

## **SECTION J113 REFERENCED STANDARDS**

These regulations establish minimum standards and are not intended to prevent the use of alternate materials, methods or means of conforming to such standards, provided such alternate has been approved.

The Building Official shall approve such an alternate provided he or she finds that the alternate is, for the purpose intended, at least the equivalent of that prescribed in this Code in quality, strength, effectiveness, durability and safety.

The Building Official shall require that sufficient evidence or proof be submitted to substantiate any claims regarding the alternate.

The standards listed below are recognized standards. Compliance with these standards is mandatory unless specifically exempted by the Building Official.

1. Testing.
  - a. ASTM D 1557, Laboratory Characteristics Compaction of Soil Using Modified Effort.
  - b. ASTM D 1556, Density and Unit Weight of Soils In Place by the Sand Cone Method.
  - c. ASTM D 2167, Density and Unit Weight of Soils In Place by the Rubber—Balloon Method.
  - d. ASTM D 2937, Density of Soils in Place by the Drive—Cylinder Method.
  - e. ASTM D 2922, Density of Soil and Soil Aggregate In Place by Nuclear Methods.
  - f. ASTM D 3017, Water Content of Soil and Rock in Place by Nuclear Methods.

### **J114 Violation.**

Owners, permittees, geologists, soils engineers, engineers serving as Permit Compliance Engineers, and others filing reports or providing official information to the City pursuant to this Chapter shall cooperate with and provide truthful and correct information to the Building Official relating to the enforcement of this Chapter. Any falsification or misrepresentation made to the City concerning compliance with this Chapter, including any voluntary disclosures and including any report that is so deficient or incomplete as to cause misunderstanding, and any withholding of information required to be submitted by or pursuant to this Chapter, is a violation.

### **J115 Liability.**

Neither the issuance of a grading permit, or any other permit issued under the provisions of this Chapter, shall relieve any person from any liability or responsibility for compliance with this Chapter or responsibility or liability otherwise imposed by law for damage to person or property.