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STATE OF NEVADA  
COUNTY OF WASHOE

Being first duly sworn, deposes and says: That as the legal clerk of the Reno Gazette-Journal, a daily newspaper published in Reno, Washoe County, State of Nevada, that the notice referenced below has published in each regular and entire issue of said newspaper between the dates: **08/25/2006 - 09/01/2006**, for exact publication dates please see last line of Proof of Publication below.

Subscribed and sworn to before me

Signed:

*Julia Ketch*  
**SEP 1 2006**



*Tana Ciccotti*

**Proof of Publication**

NOTICE OF ADOPTION WASHOE COUNTY ORDINANCE NO. 1313 NOTICE IS HEREBY GIVEN THAT: Bill No. 1492, Ordinance No. 1313 entitled: "An Ordinance amending provisions relating to Washoe County Code Chapter 110, Article 438, Grading Standards, by requiring a grading permit to be issued from the building official when grading is proposed in excess of fifty (50) cubic yards of material and further removes exemptions to obtaining a grading permit when excavation is less than two (2) feet in depth or fill less than one (1) foot in height regardless of the amount of material either excavated or filled, and other matters properly relating thereto," was adopted on August 22, 2006 by Commissioners Galloway, Humke, Larkin, Sferrazza, and Weber. This ordinance shall be in full force and effect from and after September 1, 2006. Typewritten copies of the ordinance are available for inspection by all interested persons at the office of the County Clerk, 75 Court Street Reno, Nevada, and can be found on the County Clerk's website, [www.washoecounty.us/clerks](http://www.washoecounty.us/clerks). AMY HARVEY, Washoe County Clerk and Clerk of the Board of County Commissioners No. 307840 August 25; September 1, 2006

SUMMARY: Amends Washoe County Code by requiring a building permit for grading in excess of 50 cubic yards and removes certain exemptions for a grading permit including excavation that is less than two (2) feet in depth or fill less than one (1) foot in height when the amount exceeds 50 cubic yards, and other matters properly relating thereto.

BILL NO. 1492

ORDINANCE NO. 1313

AN ORDINANCE AMENDING PROVISIONS RELATING TO WASHOE COUNTY CODE CHAPTER 110, ARTICLE 438, GRADING STANDARDS, BY REQUIRING A GRADING PERMIT TO BE ISSUED FROM THE BUILDING OFFICIAL WHEN GRADING IS PROPOSED IN EXCESS OF FIFTY (50) CUBIC YARDS OF MATERIAL AND FURTHER REMOVES EXEMPTIONS TO OBTAINING A GRADING PERMIT WHEN EXCAVATION IS LESS THAN TWO (2) FEET IN DEPTH OR FILL LESS THAN ONE (1) FOOT IN HEIGHT REGARDLESS OF THE AMOUNT OF MATERIAL EITHER EXCAVATED OR FILLED, AND OTHER MATTERS PROPERLY RELATING THERETO.

THE BOARD OF COUNTY COMMISSIONERS OF THE COUNTY OF WASHOE DO ORDAIN:

SECTION 1.

Article 438, Grading Standards, of Chapter 110 of the Washoe County Code is hereby amended as set forth in Exhibit A which is attached and incorporated by reference.

Proposed on the 8<sup>th</sup> day of AUGUST, 2006.

Proposed by Commissioner HUMKE.

Passed on the 22<sup>nd</sup> day of AUGUST, 2006

Vote:

Ayes: LARKIN, WEBER, GALLOWAY, HUMKE & SEERAZZA

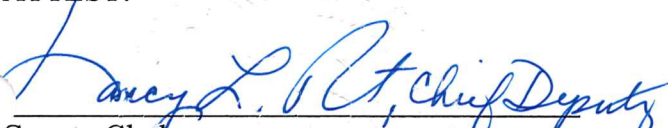
Nays: Ø

Absent: Ø



Robert M. Larkin, Chairman  
Washoe County Commission

ATTEST:



County Clerk

This ordinance shall be in force and effect from and after the 1<sup>st</sup> day of SEPTEMBER, 2006

# Article 438

## GRADING STANDARDS

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### Sections:

110.438.00	Purpose
110.438.05	Scope
110.438.10	Permits Required
110.438.15	Grading Fees
110.438.20	Exempted Work
110.438.25	Definitions
110.438.30	Hazards
110.438.35	Grading Permit Requirements
110.438.40	Bonds
110.438.45	Slopes on Parcels within Cooperative Planning Areas
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110.438.60	Setbacks
110.438.65	Drainage and Terracing
110.438.70	Erosion Control
110.438.75	Grading Inspection
110.438.80	Notification of Completion of Work
110.438.85	Grading within Floodplains and Drainage Ways
110.438.90	Buffer Areas and Setbacks from Perennial Streams and Drainage Channels
110.438.95	Grading Plan for Tentative Maps
110.438.100	NDEP Permits

**Section 110.438.00 Purpose.** The purpose of this article is to safeguard life, limb, property and the public welfare by regulating grading on private and public property.

*[Added by Ord. 1236, provisions eff. 5/21/04.]*

**Section 110.438.05 Scope.** This article sets forth rules and regulations to control grading which includes clearing and grubbing, excavation, grading and earthwork construction, including fills and embankments; establishes the administrative procedure for issuance of permits; and provides for approval of plans and inspection of grading construction. The appropriate ASTM materials testing standards or equivalent as approved by the County Engineer will be used as required to verify grading and earthwork construction.

*[Added by Ord. 1236, provisions eff. 5/21/04.]*

**Section 110.438.10 Permits Required.** Except as specified in Section 110.438.20, no person shall do any grading in excess of fifty (50) cubic yards of material without first having obtained a grading permit from the Building Official as enforceable under the powers of Chapter 100. A separate permit shall be obtained for each site, and may cover both excavations and fills.

*[Added by Ord. 1236, provisions eff. 5/21/04.]*

**Section 110.438.15 Grading Fees.** Grading fees shall be in accordance with Chapter 100.

*[Added by Ord. 1236, provisions eff. 5/21/04.]*

**Section 110.438.20 Exempted Work.** Exemption from the permit requirements of this article shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this article or any other laws or ordinances of this jurisdiction. A grading permit is not required for the following:

- (a) An excavation below finished grade for basements and footings of a building, retaining wall or other structure authorized by a valid building permit. This shall not exempt any fill made with the material from such excavation or exempt any excavation having an unsupported height greater than five (5) feet after the completion of such structure.
- (b) Cemetery graves.
- (c) Refuse disposal sites controlled by other regulations.
- (d) Excavations for wells.
- (e) Excavating for utilities.
- (f) Mining, quarrying, excavating, processing or stockpiling of rock, sand, gravel, aggregate or clay where established and provided for by law, provided such operations do not affect the lateral support or increase the stresses in or pressure upon any adjacent or contiguous property.
- (g) Exploratory excavations under the direction of soil engineers or engineering geologists.
- (h) Maintenance of roadways, access easements or driveways.

*[Added by Ord. 1236, provisions eff. 5/21/04.]*

**Section 110.438.25 Definitions.** For the purposes of this article, the definitions listed hereunder shall be construed as specified in this section.

**Approval.** "Approval" shall mean that the proposed work or completed work conforms to this article in the opinion of the Building Official or County Engineer.

**As-Graded.** "As-graded" is the extent of surface conditions on completion of grading.

**Bedrock.** "Bedrock" is in-place solid rock.

**Bench.** "Bench" is a relatively level step excavated into earth material.

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

**Civil Engineer.** "Civil Engineer" is a professional engineer registered in Nevada to practice in the field of civil works.

Civil Engineering. "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. "Compaction" is the densification of a fill or subgrade by mechanical means.

Earth Material. "Earth material" is any rock, natural soil or fill or any combination thereof.

Engineering Geologist. "Engineering geologist" is a geologist experienced and knowledgeable in engineering geology.

Engineering Geology. "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. "Erosion" is the wearing away of the ground surface as a result of the movement of wind, water or ice.

Excavation. "Excavation" is the mechanical removal of earth material.

Existing Grade. "Existing grade" is the grade prior to grading.

Fill. "Fill" is a deposit of earth material placed by artificial means.

Finish Grade. "Finish grade" is the final grade of the site that conforms to the approved plan.

Geotechnical Engineer. See "soils engineer".

Grade. "Grade" is the vertical location of the ground surface.

Grading. "Grading" is any clearing, excavation, filling or combination thereof.

Key. "Key" is a designed compacted fill placed in a trench excavated in earth material beneath the toe of a proposed fill slope.

Professional Inspection. "Professional inspection" is the inspection required by this code to be performed by a civil engineer, soils engineer or engineering geologist licensed in Nevada. Such inspections include that performed by persons supervised by such engineers or geologists and shall be sufficient to form an opinion relating to the conduct of the work.

Rough Grade. "Rough grade" is the stage at which the grade approximately conforms to the approved plan.

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

Slope. "Slope" is an inclined ground surface, the inclination of which is expressed as a ratio of horizontal distance to vertical distance.

Soil. "Soil" is naturally occurring superficial deposits overlying bedrock.

Soils Engineer (or Geotechnical Engineer). "Soils engineer" or "geotechnical engineer" is an engineer experienced and knowledgeable in the practice of soils engineering (geotechnical engineering).

Soils Engineering (Geotechnical Engineering). "Soils engineering" or "geotechnical engineering" is the application of the principles of soils mechanics in the investigation, evaluation and design of civil works involving the use of earth materials and the inspection or testing of the construction thereof.

Terrace. "Terrace" is a relatively level step constructed in the face of a graded slope surface for drainage and maintenance purposes.

*[Added by Ord. 1236, provisions eff. 5/21/04.]*

**Section 110.438.30 Hazards.** Whenever the Building Official or County Engineer 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.

*[Added by Ord. 1236, provisions eff. 5/21/04.]*

**Section 110.438.35 Grading Permit Requirements.**

- (a) Grading Requiring a Special Use Permit. A special use permit is required for any clearing, excavating, filling, grading, earthwork construction, earthen structures and storage of earth, including fills and embankments if:
- (1) The disturbed area exceeds twenty-five thousand (25,000) square feet per parcel.
  - (2) More than one thousand (1,000) cubic yards of earth will be imported and placed as fill in a special flood hazard area.
  - (3) More than five thousand (5,000) cubic yards of earth will be imported and placed as fill.
  - (4) More than one thousand (1,000) cubic yards will be excavated, whether or not the earth will be exported from the property.
  - (5) A permanent earthen structure will be established over four and one-half (4.5) feet high.
    - (i) "Permanent", as it applied to earthen structures, means earthen structures: (1) which the plans show will remain at the completion of the work; or (2) which will remain indefinitely under separate permit and approvals for purposes of storage until a use is found elsewhere.
    - (ii) "Temporary", as applied to earthen structures, means earthen structures that the plans show will not remain at the completion of the work.

- (iii) Height of earthen structures is measured from the land surface, as it existed prior to applying for the permit or from grade shown on plans, whichever is lower.
- (6) The provisions of (2) and (3) of this subsection are applicable whether the material is intended to be permanently located on a site or temporarily stored on a site for relocation to another, final site.
- (7) A special use permit is exempted for:
  - (i) Earth excavated from a slope greater than seven (7) percent and retained on the slope immediately adjacent to the excavation, where such excavation is for the foundation of a building.
  - (ii) Earthwork performed by the subdivider or developer of an approved subdivision, major project or other projects that have completed a hearing process and review pursuant to which mitigation conditions could have been attached in the same manner as in the special use permit process.
  - (iii) Public utilities within the public right-of-way or a public utility easement.
  - (iv) The area under a building footprint or pavement.
  - (v) Areas that will be landscaped within ninety (90) days following completion of construction.
  - (vi) Areas disturbed by agricultural use, animal production, crop production, and forest products.

(b) Grading Permit Application Requirements.

- (1) Application for a grading permit shall be accompanied by plans and 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 of Nevada to prepare such plans or specifications when required by the Building Official. This individual shall be considered as the engineer or architect of record unless otherwise approved by the Building Official.
- (2) Specifications shall contain information covering construction and material requirements.
- (3) 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 the work will conform to the provisions of this code and all relevant laws, ordinances, rules and regulations. The first sheet of each set of plans shall give the location of the work, the name and address of the owner, and the person by whom they were prepared.
- (4) The plans shall include the following information:
  - (i) General vicinity of the proposed site.

- (ii) Property limits and accurate contours of existing ground and details of terrain and area drainage.
  - (iii) All finish grade elevations, high point locations, limiting dimensions, and finished contours to be achieved by grading, and all drainage swale, natural drainage ways, and drainage easement locations both on-site and immediately off-site as needed to verify the proposed drainage system.
  - (iv) 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. All disturbed areas and cut and fill volumes shall be quantified and shown on the plans.
  - (v) Location of any buildings or structures on the property where work is to be performed and the location of any buildings or structures on land of adjacent owners that are within fifteen (15) feet of the property line or that may be affected by the proposed grading operations.
  - (vi) 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.
  - (vii) 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.
  - (viii) The destination of excavated material not used on site and how it will be used at its end destination, and the location of temporary material storage site(s).
- (c) Soils Engineering Report. The soils engineering report required by Section 110.438.35(b) 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 site to be developed by the proposed grading as affected by soils engineering factors, including the stability of slopes.
- (d) Engineering Geology Report. The engineering geology report required by Section 110.438.35(b) 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.



- (e) Liquefaction Study. The Building Official or County Engineer may require a geotechnical investigation and report addressing the potential for liquefaction when, during the course of an investigation, all of the following conditions are discovered:
- (1) Shallow groundwater, fifty (50) feet or less.
  - (2) Unconsolidated sandy alluvium.
  - (3) Seismic Zones 3 or 4.
- (f) Minor Grading Requirements. Minor grading is less than the limiting quantities for a special use permit as in Section 110.438.35(a). Minor grading may not require engineering grading plans as in Section 110.438.35(b). Each application for a minor grading permit shall be accompanied by a plan in sufficient clarity to indicate the nature and extent of the work. The plans shall give the location of the work, the name of the owner, and the name of the person who prepared the plan. The plan shall include, as a minimum, the following information:
- (1) General vicinity of the proposed site.
  - (2) Limiting dimensions and depth of cut and fill, including the quantities of all disturbed areas and volumes of cut and fill.
  - (3) Location of any buildings or structures where work is to be performed, and the location of any buildings or structures within fifteen (15) feet of the proposed grading.
  - (4) Location of all drainage swales, natural drainage ways, and drainage easements both on-site and immediately off-site as needed to verify the proposed drainage system.

*[Added by Ord. 1236, provisions eff. 5/21/04.]*

**Section 110.438.40 Bonds.** The Building Official or County Engineer shall require a bond or other security in the amount required by this section to assure that the work, if not completed in accordance with the approved plans and specifications, will be corrected to eliminate hazardous conditions, to assure completion of the work, to assure reclamation for uncompleted or completed work and to assure correction of illegal or nonconforming work.

- (a) The amount of the bond shall be the lower of:
- (1) Fifteen hundred dollars (\$1,500.00) per acre of disturbed area; or
  - (2) A reclamation cost estimate approved by the County Engineer.
- (b) The County Engineer may use the bond or other security six (6) months after cessation of work. The County Engineer may grant extensions beyond six (6) months if:
- (1) Due diligence is shown to the County Engineer;
  - (2) The County Engineer accepts a revised schedule for completion; or

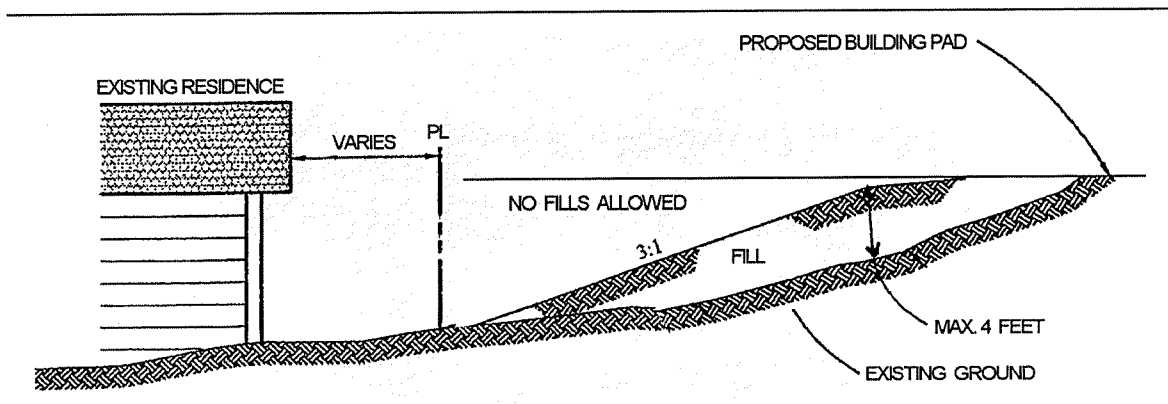
- (3) Events beyond control of the permittee occur.
- (c) The bond shall be released upon determination by the County Engineer of:
  - (1) Completion of work;
  - (2) Completion of reclamation; or
  - (3) Correction of illegal or nonconforming work.
- (d) After the bond is spent in whole or in part on reclamation of uncompleted work, a new bond will be required prior to resumption of work.

[Added by Ord. 1236, provisions eff. 5/21/04.]

**Section 110.438.45 Slopes on Parcels within Cooperative Planning Areas.**

- (a) The standards of this section apply for the entire term of the 2002 Regional Plan, are part of the settlement of litigation related to that plan, and may be amended only by agreement of all parties to that settlement. These standards apply to all cooperative planning areas.
- (b) Grading for subdivision improvements, minor or major special use permits, or other discretionary or building permits adjacent to lots less than or equal to five (5) acres in size shall:
  - (1) Not result in slopes in excess of, or steeper than, three horizontal to one vertical (3:1).
  - (2) For a distance of fifty (50) feet from the shared common property line with an existing residence (see Figure 110.438.45.1), fills shall not differ from the natural grade by more than forty-eight (48) inches and may not exceed a slope of three horizontal to one vertical (3:1).

Figure 110.438.45.1  
**GRADING**



Source: Washoe County Department of Community Development.

- (3) Not result in slopes that differ from the natural grade by more than twenty (20) feet within five hundred (500) feet of a shared common property line with existing development.
  - (4) Be limited on cut slopes to equal to, or less than, a slope of three horizontal to one vertical (3:1). However, major cut slopes, in excess of one hundred (100) lineal feet, shall be permitted when the cut slopes include stepped-back structural containment in the form of benches and terraces that include landscaping on the terraces. Rockery walls used to create benches are limited to a maximum vertical height of six (6) feet. The resulting terraces shall include a minimum horizontal width of six (6) feet to provide for the landscaped bench. An exception may be allowed for cuts into stable rock, supported by a geotechnical report.
  - (5) Utilize a gradual transition or "rounding or contouring" of the manufactured slope at the intersection of a manufactured cut or fill slope and a natural slope.
  - (6) Visually integrate all slope faces (cut or fill) into the natural terrain by a gradual transition or "contouring/rounding" of the manmade landforms into the natural terrain to add sinuosity to the grading of the site.
  - (7) Prohibit the use of riprap and gabions as a mechanical stabilization for cut slopes, except where essential for safe access, for passage within the rights-of-way of public roads, and for storm drainage control device(s).
  - (8) Require compatibility with adjacent lots, demonstrate visual impacts to the community, and propose design criteria, landscaping and buffering to mitigate impacts on adjacent owners and the community's scenic character, if the applicant proposes cut, fills or slopes in excess of the requirements. Alternative materials and procedures supported by adequate engineering documentation may be approved, provided that they meet the aesthetic intent of these requirements and incorporate mitigation.
  - (9) Prohibit road cuts or road retaining walls in excess of six (6) feet in height, except where greater cuts are necessary to maintain American Associates of State Highway Transportation Officials (AASHTO) or local road standards. Grades above retaining walls or cuts shall not exceed three horizontal to one vertical (3:1). This exception shall not be granted when it is feasible to limit the wall height to six (6) feet by means of a slope layback above the wall, in which case the finished slope above the wall shall not exceed three horizontal to one vertical (3:1) and must be revegetated with sustainable growth.
  - (10) Ensure that when viewed from the horizontal opposite any cut made for a structure pad, the cut shall not exceed the height of the structure. The area of the cut that will be screened at buildout (by natural landscape, required landscaping and the structure) shall not be less than ninety (90) percent of the total area of the cut when viewed from the horizontal.
- (c) All other grading standards shall apply for Sparks, Reno and Washoe County as they were respectively in effect on October 17, 2002, except where a common

code applies to all cooperative planning areas in accordance with Exhibit 3, Initial Criteria for Areas within Extended SOIs of the Regional Plan Settlement Agreement Case No. CV02-03469.

- (d) Proposed storm drainage improvements may include riprap and may include slopes steeper than three horizontal to one vertical (3:1) as approved by the County Engineer.

*[Added by Ord. 1236, provisions eff. 5/21/04.]*

**Section 110.438.50 Cuts.** Cuts on parcels within Cooperative Planning Areas shall be constructed in accordance with Section 110.438.45. Cut slope design and construction will also be based on a soils and geology report as in Section 110.438.35(c) and (d) unless determined not required by the Building Official or the County Engineer.

*[Added by Ord. 1236, provisions eff. 5/21/04.]*

**Section 110.438.55 Fills.** Fills on parcels within Cooperative Planning Areas shall be constructed in accordance with Section 110.438.45. Fill slope design and construction will also be based on a soils and geology report as in Section 110.438.35(c) and (d) unless determined not required by the Building Official or the County Engineer and, as applicable, the following general specifications:

- (a) **Preparation of Ground.** Fill slopes shall not be constructed on natural slopes steeper than two units horizontal to one unit vertical (50 percent slope). The ground surface shall be prepared to receive fill by removing vegetation, noncomplying fill, topsoil and other unsuitable materials and by scarifying to provide bond with the new fill and, where slopes are steeper than five units horizontal to one unit vertical (20 percent slope) and the height is greater than five (5) feet, by benching into sound bedrock or other competent material as determined by the soils engineer. Drainage facilities shall be provided at the toe of fills in accordance with Section 110.438.65. When fill is to be placed over a cut or bench, the cut or bench shall be accepted by the soils engineer or engineering geologist as a suitable foundation for fill prior to fill placement.
- (b) **Fill Material.** Detrimental amounts of organic material shall not be permitted in fills. Except as permitted by the Building Official, no rock or similar irreducible material with a maximum dimension greater than twelve (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 twelve (12) inches in maximum dimension shall be ten (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.*
- (c) **Compaction.** All fills shall be compacted to a minimum of ninety (90) percent of maximum density and in accordance with the project soils report.

*[Added by Ord. 1236, provisions eff. 5/21/04.]*

**Section 110.438.60 Setbacks.** Cut and fill slopes shall be set back from site boundaries in accordance with this section. Setback dimensions shall be horizontal distances measured perpendicular to the site boundary.

- (a) Top of Cut Slope. The top of cut slopes shall not be made nearer to a site boundary line than one-fifth (1/5) of the vertical height of cut with a minimum of two (2) feet and a maximum of ten (10) feet. The setback may need to be increased for any required interceptor drains.
- (b) Toe of Fill Slope. The toe of fill slope shall be made not nearer to the site boundary line than one-half (1/2) the height of the slope with a minimum of two (2) feet and a maximum of twenty (20) feet. Where a fill slope is to be located near the site boundary and the adjacent off-site property is developed, special precautions shall be incorporated in the work as the Building Official deems necessary to protect the adjoining property from damage as a result of such grading. These precautions may include but are not limited to:
  - (1) Additional setbacks.
  - (2) Provisions for retaining walls or slough walls.
  - (3) Mechanical or chemical treatment of the fill slope surface to minimize erosion.
  - (4) Provisions for the control of surface waters.
- (c) Modification of Slope Location. The Building Official or County Engineer may approve alternate setbacks. The Building Official or County Engineer may require an investigation and recommendation by a qualified engineer or engineering geologist to demonstrate that the intent of this section has been satisfied.

*[Added by Ord. 1236, provisions eff. 5/21/04.]*

**Section 110.438.65 Drainage and Terracing.** Drainage facilities and terracing shall be shown on the approved grading plan.

- (a) Subsurface Drainage. Cut and fill slopes shall be provided with subsurface and surface drainage as necessary for stability.
- (b) Drainage Disposal. All drainage facilities shall be designed to carry waters to the nearest acceptable drainage way approved by the Building Official or County Engineer. Erosion of ground in the area of discharge shall be prevented by installation of erosion control facilities. Building pads shall have a drainage gradient of two (2) percent toward approved drainage facilities, unless waived by the Building Official.
- (c) Interceptor Drains. Paved interceptor drains shall be installed along the top of cut slopes and/or within terraces as recommended in the approved soils report.

*[Added by Ord. 1236, provisions eff. 5/21/04.]*

**Section 110.438.70 Erosion Control.** The faces of cut and fill slopes shall be prepared and maintained to control against erosion. This control may consist of effective planting. The

protection for the slopes shall be installed as soon as practicable but shall be treated with a dust palliative if left undeveloped for more than thirty (30) days and shall be revegetated if left undeveloped for more than forty-five (45) days. Where necessary, check dams, cribbing, riprap or other devices or methods shall be employed to control erosion and provide safety. Any grading operation which will disturb an area of one (1) acre or more also requires a Nevada Department of Environmental Protection (NDEP) permit as per Section 110.438.100.

*[Added by Ord. 1236, provisions eff. 5/21/04.]*

**Section 110.438.75 Grading Inspection.** Grading operations for which a permit is required shall be subject to inspection by the Building Official or County Engineer. Professional inspection of grading operations shall be provided by the civil engineer, soils engineer and the engineering geologist retained to provide such services in accordance with Section 110.438.75(d), and as required by the Building Official for minor grading [Section 110.438.35(f)].

- (a) **Civil Engineer.** The civil engineer shall provide professional inspection within such engineer's area of technical specialty, which shall consist of observation and review as to the establishment of line, grade and surface drainage of the development area. If revised plans are required during the course of the work, they shall be prepared by the engineer of record.
- (b) **Soils Engineer.** The soils engineer shall provide professional inspection within such engineer's area of technical specialty, which shall consist of 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 section. 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 engineer of record.
- (c) **Engineering Geologist.** 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.
- (d) **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, and the permittee shall engage consultants to provide professional inspections on a timely basis. The permittee shall act as a coordinator between the 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.
- (e) **Building Official.** The Building Official shall inspect the project at the various stages of work requiring approval to determine that adequate control is being exercised by the professional consultants.
- (f) **Notification of Noncompliance.** If, in the course of fulfilling their respective duties under this article, the civil engineer, the soils engineer or the engineering geologist find that the work is not being done in conformance with this article or

the approved grading plans, the discrepancies shall be reported immediately in writing to the permittee and to the Building Official.

- (g) Transfer of Responsibility. If the civil 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.

[Added by Ord. 1236, provisions eff. 5/21/04.]

**Section 110.438.80 Notification of Completion of Work.**

- (a) Restrictions Pending Completion. Notification and inspection is required before the expiration of the permit to determine whether work is completed in accordance with the final approved grading plan. No final permit, final inspection or certificate of occupancy may be issued for other structures on the property until the grading permit has received a final inspection to determine that the grading work is complete or, if uncompleted, that reclamation work has been completed.
- (b) Engineering Certification. Prior to the scheduling of certain inspections, the Building Official shall require that a Nevada registered civil engineer or a Nevada registered land surveyor submit a certification letter on all parcels for the following:
  - (1) Nevada registered civil engineer to certify:
    - (i) Soils investigation report indicating soils classification and design prior to the foundation inspection.
    - (ii) Elevation, grading and drainage certification per the approved construction plans prior to the issuance of a certificate of occupancy. *Exception: On parcels two (2) acres or more which do not affect the drainage on other properties, the Building Official may waive this certification requirement.*
  - (2) Nevada registered civil engineer or a Nevada registered land surveyor to certify foundation elevation and building setback certification as per the approved plot plan prior to the foundation inspection.
- (c) Permittee Notification to Building Official. The permittee or his agent shall provide written verification to the Building Official that the grading work has been completed in accordance with approved plans and specifications. 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.

[Added by Ord. 1236, provisions eff. 5/21/04.]

**Section 110.438.85 Grading within Floodplains and Drainage Ways.**

- (a) Grading for development within Federal Emergency Management Agency (FEMA) designated floodplains shall comply with Article 416, Flood Hazards.
- (b) Grading for development within floodplains other than those designated by FEMA and within natural drainage ways shall comply with Article 420, Storm Drainage Standards.

*[Added by Ord. 1236, provisions eff. 5/21/04.]*

**Section 110.438.90 Buffer Areas and Setbacks from Perennial Streams and Drainage Channels.**

- (a) Buffer Areas. Buffer area requirements for grading activities in the vicinity of streams classified as perennial are included in Article 418, Significant Hydrologic Resources. Streams classified as perennial are shown on Map 110.418.05.1.
- (b) Setbacks from Drainage Ways.
  - (1) The following minimum setbacks for structures shall be maintained from the centerline of drainage ways which are not classified as perennial streams:
    - (a) Fifteen (15) feet from the centerline of incidental drainage ways [drainage area less than one thousand (1,000) acres].
    - (b) Twenty-five (25) feet from the centerline of secondary drainage ways [drainage area one thousand (1,000) to five thousand (5,000) acres].
    - (c) Fifty (50) feet from the centerline of major drainage ways [drainage area greater than five thousand (5,000) acres].
  - (2) The setbacks may be modified upon submission and approval of plans for construction of improvements to drainage ways in question. Improvements shall provide capacity within drainage ways for the free unobstructed passage of the required flood flow quantity as determined by an approved hydrologic/hydraulic analysis.
  - (3) The County Engineer may require that any such improvement conform to any master plan of drainage as may be presently or hereafter adopted by Washoe County.

**Section 110.438.95 Grading Plan for Tentative Maps.** Grading plan submittals for tentative maps shall be in accordance with Section 110.608.10 (x) and (y).

*[Added by Ord. 1236, provisions eff. 5/21/04.]*

**Section 110.438.100 NDEP Permits.** A permit from the Nevada Department of Environmental Protection (NDEP) is required when grading operations will disturb an area of one (1) acre or more. As a minimum, it is required that the receipt showing the NDEP permit fee has been paid shall be submitted to the County Engineer prior to beginning any grading operations.

*[Added by Ord. 1236, provisions eff. 5/21/04.]*