

CHAPTER 158: SLOPE ORDINANCE

Section

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GENERAL PROVISIONS

§ 158.01 TITLE.

This chapter shall be known and cited as the Slope Ordinance of Haywood County, North Carolina and may also be referred to as the Slope Rules or the Slope Regulations.

§ 158.02 AUTHORITY AND ENACTMENT.

The General Statutes of North Carolina provides in G.S. §153A-121 (a) “A county may by ordinance define, regulate, prohibit, or abate acts, omissions, or conditions detrimental to the health, safety, or welfare of its citizens and the peace and dignity of the county; and may define and abate nuisances.” Therefore, enabled as aforesaid, the Board of Commissioners of Haywood County does hereby ordain and enact into law this chapter of the Code of Ordinances of Haywood County.

§ 158.03 PREAMBLE.

This chapter herein recognizes that development within the county has important, positive economic benefits to the citizens of Haywood County. However, adverse effects from some development activities can pose a threat to the well being of Haywood County residents living in or visiting steeper developed areas and may threaten long-term sustainability of associated activities. Economic pressures, unknown site conditions, inadequate or inappropriate design and/or inexperienced land-disturbers can inadvertently or deliberately adversely affect the quality, safety, and or stability of the design or construction of development activities, including the creation of graded slopes and fills. In order to provide for the creation of reasonably stable artificial slopes on developed land, the county hereby deems that disturbed land herein identified shall be planned and constructed so as to contain graded slopes and fills that will remain stable for a reasonable life span. It is also deemed that land-disturbing activity resulting in the construction of safe, stable properties is an important, valuable economic consideration for property owners, as well as to the citizens of Haywood County. It is the intent of this chapter to implement reasonable standards that will result in consistent, base levels of construction on developed land, while decreasing the potential for damage to natural resources and properties adjoining tracts containing artificial slope construction.

§ 158.04 JURISDICTION.

This chapter shall apply to all private property in Haywood County, North Carolina that is located outside the corporate limits and planning / zoning jurisdictions of all municipalities, as they exist from time to time, subject to enlargement through the action of the County and its municipalities.

§ 158.05 DEFINITIONS.

For the purpose of this chapter, the following definitions shall apply unless the context clearly indicates or requires a different meaning. Terms used within this chapter, which are not herein defined, may carry the same definition as referenced in other Haywood County Ordinances, state or federal regulations or nationally accepted engineering methods, standards or designs.

APPLICANT. Means any person, whether the person financially responsible for the artificial slope construction or repair or his or her duly appointed agent, who submits a formal application to

the Engineering Coordinator or duly appointed agent for a permit required by this chapter to conduct artificial slope construction or repair; or a person, who files with the Engineering Review Board, a motion to appeal a decision by the Engineering Coordinator or his or her agent as contained in this chapter.

APPROVAL. Means the proposed slope work or completed slope work appears to conform reasonably to the requirements of this chapter.

ARTIFICIAL SLOPE CONSTRUCTION OR REPAIR. Any land-disturbing activity that proposes to create or change any slope; or any land-disturbing activity that creates or changes any slope.

BEDROCK. In place or “in situ” solid rock underneath top horizon soil layers.

BELOW-GRADE WALL. Any artificial grade separation constructed as a part of a building.

BENCH. A relatively long, narrow linear step or break that is excavated or built into consolidated earth material of a slope which generally runs with the contour.

CHAPTER. This Ordinance as approved by the governing board of the county.

CIVIL ENGINEER. A professional person licensed or registered in the State of North Carolina to practice in the field of civil works.

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

COMPACTION. The densification of an earth material by mechanical means.

COUNTY. Haywood County and its employees who are tasked with administration and enforcement of this chapter.

CRITICAL SLOPE. Any cut slope, fill slope, or retaining wall where mass instability (failure) would likely be a hazard to life and limb, endanger adjoining occupied structures, or the safety and use of a public road or a natural watercourse.

CUT SLOPE. Any area of ground subject to a land-disturbing activity forming an artificial incline, expressed as the ratio of horizontal to vertical projection; an area of ground where earth material is to be or has been removed by excavation or other methods used by man, and that exposes lower horizons of earth material in situ, and where any face of the excavated area lies in repose at any angle other than a horizontal plane.

DESIGN PROFESSIONAL. A civil engineer, soils engineer, soil scientist, licensed/registered professional land surveyor, geotechnical engineer, architect, landscape architect, or engineering geologist as currently licensed, registered or certified by the State of North Carolina.

DEVELOPMENT. Any man-made change to improved or unimproved real estate, including, but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, excavation, or drilling operations.

DISTURBED AREAS. Any area subject to a land-disturbing activity.

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

ENGINEERING COORDINATOR. An individual or group of individuals designated by the Haywood County Commissioners and charged with enforcing the provisions of this chapter and having the power to enter all lands at reasonable times to ensure that these provisions are being carried out. This position will serve as clerk to the Engineering Review Board, and this position will be the administrator for the Slope Ordinance.

ENGINEERING REVIEW BOARD. Also known as the Haywood County Engineering Review Board or Engineering Board as organized by this chapter and is a group of knowledgeable, professional people charged with policymaking and enforcement conditions of this chapter.

EXCAVATION. The mechanical removal of, placement of, or the mechanical manipulation of earth material; a land-disturbing activity.

EXISTING GRADE. The grade prior to any land-disturbing activity.

FACTOR OF SAFETY. The results of a stability analysis normally expressed as a numerical value of a factor of safety; specifically, 1) The ratio of stabilizing forces/moments to disturbing forces/moments, or 2) The ratio of the shear strength available to the shear stress required for equilibrium of the slope.

FILL. A deposit of earth material placed by artificial means.

FILL SLOPE. Any area of placed earth material that has been or will be subject to a land-disturbing activity forming an artificial incline and expressed as the ratio of horizontal to vertical projection; an area where soil is to be or has been placed by excavation or other methods used by man and where any face of the excavated area lies in repose at any angle other than a horizontal plane.

FINISH GRADE (FINISHED GRADE). The final grade of the site and the topography of which will conform to the approved plan.

GROUND COVER. Any natural vegetative growth or other materials that render the soil surface stable against accelerated erosion.

KEY. A designed, compacted fill placed in a trench excavated in earth material beneath the toe of a proposed slope.

LAND-DISTURBER. Any person who is or has been a participant in performing or helping perform a land-disturbing activity.

LAND-DISTURBING ACTIVITY. Means any use of the land by any person in residential, industrial, educational, institutional or commercial development, highway and road construction, and maintenance that results in a change in the natural cover or topography and that may cause or contribute to sedimentation.

LAND-DISTURBING PERMIT. The document issued by the county which allows grading or other land-disturbing activity or operations to commence and proceed in accordance with the requirements of Chapter 154 of the Haywood County Code of Ordinances.

MAJOR SUBDIVISION. A proposed subdivision of land where eleven (11) or more lots will result after the subdivision is complete.

MASS INSTABILITY OF A SLOPE. Failure of a slope by large movements of the slope.

MECHANICALLY STABILIZED EARTH (MSE). A retaining wall that depends on internal reinforcement to resist mass instability.

MINOR SUBDIVISION. A proposed subdivision of land where four (4) to ten (10) lots will result after the subdivision is complete. One phase of planned development cannot be considered a minor subdivision unless the entire development does not exceed ten (10) lots.

NATURAL EROSION. The wearing away of the earth's surface by water, wind, ice, gravity or other natural agents under natural environmental conditions undisturbed by man.

PERSON. Any individual, partnership, firm, association, joint venture, public or private corporation, trust, estate, commission, board, public or private institution, utility, cooperative, interstate body, or other legal entity.

PERSON CONDUCTING LAND-DISTURBING ACTIVITIES. Any person who may be held responsible for a violation of this chapter unless expressly provided otherwise in this chapter or the Sedimentation Pollution Control Act of 1973, being G.S. §§113A-50 through 113A-66, as amended, or any order adopted pursuant to this chapter or the Act.

PERSON RESPONSIBLE FOR THE VIOLATION.

(A) The developer or other person who has or holds himself/herself as having financial or operational control over the slope construction or slope repair activity; and or,

(B) The landowner or person in possession or control of the land when he/she has directly or indirectly allowed the slope construction or slope repair activity, or has benefited from it, or he/she has failed to comply with any provision of this chapter.

PHASE OF GRADING. One of two types of grading, rough or fine.

PLAN. Slope construction plan, slope repair plan, or slope stabilization plan.

PROFESSIONAL INSPECTION. An inspection required by this chapter to be performed by a design professional currently licensed, registered, or certified by the State of North Carolina. A professional inspection shall address the conditions or proposed conditions of the site in question.

REINFORCED SOIL SLOPE (RSS). Any slope that depends on internal reinforcement to resist mass instability.

RETAINING WALL. Any manmade (artificial) grade separation that is not a slope. A retaining wall may also be defined as a structure or device placed on the face of a cut slope or fill slope that covers the slope face and that holds the earth material in place by use of properly designed external and internal structural components.

ROUGH GRADE. The condition of grading, excavation, or land-disturbing activity up to the condition that approximately conforms to the plan.

SHEAR STRENGTH. The mechanical strength of an earth material. In geotechnical engineering, a stability analysis of a slope can be made using either effective stress shear strength or total stress shear strength. In effective stress analyses, the shear strength of the soil is related to the effective normal stress on the potential slip surface by means of effective stress shear strength parameters. In effective stress analyses, pore water pressures within the earth material must be known and are a part of the information required for analysis. In total stress analyses, the shear strength of the soil is related to the total normal stress on the potential slip surface by means of total stress shear strength parameters. In total stress analyses, pore water pressures within the earth material need not be known and are not required as input for analysis.

SITE. Any tract where grading, excavation, land-disturbing activity, or artificial slope construction or repair is being planned, performed, permitted or being conducted.

SLOPE. An inclined ground or earth material surface; the inclination of which is expressed as a ratio of horizontal distance to vertical distance.

SLOPE CONSTRUCTION PERMIT. The document issued by the county which allows slope construction and/or slope repair to commence and proceed in accordance with the requirements of Chapter 158 of the Haywood County Code of Ordinances.

SOIL. Naturally occurring superficial deposits of earth material overlying bedrock.

STABLE. For the purposes relating to this chapter, “stable” shall mean adequately and reasonably resistant to change of position or condition. A stable slope shall have a factor of safety equal to or greater than that defined in Section §158.10(C)(1), Table 1.

TERRACE. A relatively long, narrow, linear step or break that is excavated or built into unconsolidated earth material of a slope which generally runs with the contour. It is built to control runoff, reduce erosion, and provide for maintenance of the slope.

UNCOVERED. The removal of groundcover from, on, or above the soil surface.

UNDERTAKEN. The initiation of any activity, or phase of activity, which results or will result in a change in the groundcover or topography of a tract of land.

VIOLATION. Any slope construction or slope repair activity regulated by the provisions of this chapter that is planned or carried out without regard to all the contents and responsibilities thereof, or an approved slope stabilization plan.

§ 158.06 PURPOSE.

(A) This chapter is established for the following purposes:

(1) To provide effective requirements for the following: site planning and the design of, the construction of, and/or the repair of, cut slopes and/or fill slopes on land by any practice considered a “land-disturbing activity” as defined in N.C.G.S. 113A-52(6); and,

(2) To balance: a) slope construction of safe, stable heights and inclination; and, b) provide rules that will lead to the construction or repair of artificial slopes that are stable; and,

(3) To provide elevated levels of safety to properties and natural resources adjoining tracts containing artificially constructed slopes, repaired slopes, or repairable slopes by reducing the likelihood of slope failures on developed or disturbed land; and,

(4) To safeguard life, limb, property, natural resources, and the public welfare by regulating slope construction and slope repair subject to land-disturbing activity; and,

(5) To consider the cost effectiveness of required measures.

§ 158.07 EXCLUDED ACTIVITIES.

Exemption from the requirements of this chapter shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this chapter or any other laws or ordinances of this jurisdiction or those of any local, state, or federal agency. Permission to construct an artificial slope is not required for the following:

(A) Cemetery graves.

(B) Landfill activities controlled by other local, state or federal agencies.

(C) Excavations for wells or tunnels.

(D) Any mining activity subject to N.C.G.S. Title 15A, Chapter 5, Mining: Mineral Resources, providing such operations do not affect the lateral support or increase the stresses in or pressure upon any adjacent or contiguous property.

(E) Exploratory excavations not requiring a building permit that are less than one-half acre of disturbed area under the direction of registered engineers, registered sanitarians (test pits only), or other registered professionals deemed competent by the Engineering Review Board.

(F) Land-disturbing activities named exempt by the Sedimentation Pollution Control Act of 1973, as amended.

(G) Repair of natural slope failures such as, but not limited to landslides.

(H) Underground storage tanks and ditches subject to OSHA regulations.

(I) Artificial slope construction for below grade portions of a residential or commercial structure that has a current building permit and is in compliance with all applicable local, state, and federal regulations, including, but not limited to the North Carolina State Building Code as adopted and amended.

§ 158.08 SCOPE; GENERAL REQUIREMENTS.

(A) This chapter sets forth rules and regulations to control the aspects of land-disturbing activity, grading, excavation and earthwork construction known as cut slopes and fill slopes, also known as graded slopes and fills; establishes the administrative procedure for approval and permitting of artificial slope construction activities and slope repair; and, provides guidelines for inspections, investigations, and enforcement procedures and other remedies for violations of this chapter.

(B) The county recognizes that there is an inherent element of instability in all slopes, including natural slopes. The county recognizes that the construction of stable slopes is an issue that may be associated with several different aspects of development; and that, requirements contained in this chapter may not be adequate to produce stable slopes in every situation. Many factors should be considered when slopes are constructed; such as soil types, hydrology, geology, weather patterns, natural slope, aspect, surrounding uses, planned use, historic use, depth to bedrock, quality of construction, and other factors that either may be unseen, undetected, or in combination could lead to unstable slopes.

(C) Persons conducting artificial slope construction or slope repair shall be responsible for adequate site assessment, planning, designing, and the construction of stable artificial slopes.

(D) If any person is required to obtain a Land-Disturbing Permit from the County and the land-disturbing activity contains artificial slope construction or repair as part of the activity, the plan and the work must be compliant with the requirements of this Chapter.

(E) If the land-disturbing activity consists of absolutely no artificial slope construction or repair, the land-disturber may submit an ‘Affidavit of Land Disturbance Without Slope Construction or Repair’ to the Engineering Coordinator’s office.

§ 158.09 SLOPE INCLINATIONS; REQUIREMENTS.

(A) References in determining stable slope inclinations are based upon guidelines used historically by the State of North Carolina and other professionals experienced in the design, construction and repair of artificial slopes. These provisions may not be adequate for slope stabilization in every situation, or they may be too restrictive depending upon site-specific conditions. Proper assessment of site conditions for the construction or repair of slopes is the responsibility of the landowner or the person financially responsible for the slope activity.

(B) Site- Specific Slope Measurement:

Site-Specific Slope measurement shall be taken by the following methods:

(1) On residential lots, the average slope will be determined by triangulating the line of the highest natural elevation to the lowest natural elevation in relation to the horizontal. However, if elements of topographic condition are evident, such as bulging slopes, drop-offs or climbs, and/or signs of failure, such as, but not limited to, slope creep; then horizontal lines may be adjusted to more specifically describe slope in areas of concern; and,

(2) On roadwork, the average slope will be determined from the toe of the fill to the top of the cut plus any areas of concern above or below the roadwork area triangulated against the horizontal; and,

(3) Slope steepness may be measured by using standard engineering methods approved for use in the State of North Carolina, other methods approved by the Engineering Review Board, and to a standard approved by the Engineering Review Board. The Engineering Coordinator shall consult the Engineering Review Board or other appropriate authorities in these issues in an effort to develop consistent, fair, standard operating procedures for accurately measuring slope steepness.

(C) Slope Height Limitations:

(1) Cut slopes steeper than 1:1 (h:v) or fill slopes steeper than 1.5:1 (h:v) and greater than fifteen feet (15’) in vertical height may require a professional inspection stating that slopes meet the criteria of engineering standards approved for use in the State of North Carolina, if so determined by the Engineering Coordinator.

§ 158.10 ADDITIONAL STANDARDS.

(A) All artificial slopes, at any stage of construction or repair, are subject to soil density testing at the discretion of the Engineering Coordinator. For major and minor subdivisions that will have roadway embankments (i.e. fill slopes), the Financially Responsible Person shall provide Standard Proctor (ASTM D-698) test data to the Engineering Coordinator that adequately and reasonably represent those areas. Other methods of testing soil density, strength of material, or subgrade modulus will be evaluated by the Engineering Board from time to time and may be substituted for Standard Proctor tests, if deemed acceptable by the Engineering Board.

(B) Cut slopes, Fill slopes and Retaining walls:

(1) Fill slopes, cut slopes, or retaining walls subject to the requirements of this chapter shall be designed, constructed, or repaired in such a manner that they will be stable. A stable slope or retaining wall shall have a factor of safety against mass instability that is greater than or equal to the factors of safety shown in Table 1.

Table 1 – Minimum Factors of Safety Against Mass Instability

Type of Slope	Minimum Factor of Safety		
	Long-term (effective stress conditions)	End-of-Construction (total stress conditions)	Pseudo-static conditions
Critical Slope	1.5	1.2	1.2
Slope	1.3	1.1	1.1

Pseudo-static conditions are based on long-term (effective stress) conditions with the application of a pseudo-static coefficient. The pseudo-static coefficient is based on a design earthquake as one-half the peak ground acceleration (pga) from the USGS peak acceleration map for the eastern United States, with a two percent probability of exceedence in 50 years. In lieu of a site-specific value, a default value of 0.15g (i.e., an acceleration of 15 percent of one standard gravity) may be used. Pseudo-static analyses should not be performed for sites evaluated with a Seismic Site Classification of “E” or “F” as defined by the North Carolina Building Code, as a more detailed assessment of seismic stability would be needed.

(2) All fill slopes shall be compacted by methods developed by the Engineering Review Board as standard operating procedure.

(3) The Engineering Coordinator, in consultation with the County Attorney, shall have the power to require written statements or the filing of reports under oath with respect to pertinent questions relating to artificial slope construction, slope stabilization, or slope repair.

(4) Refusal on the part of the landowner, the person financially responsible for the land-disturbing activity, or the land-disturber to cooperate in making requested repairs, providing professional inspections, providing engineering designs, or any other officially requested information or action by the Engineering Coordinator shall constitute a violation of this chapter.

(5) Stabilized ditches or other methods shall be used to prevent the uncontrolled runoff of storm water over artificially constructed or repaired slopes.

(C) Whenever conflicts exist between federal, state or local laws, ordinances or rules, the more restrictive provision shall apply.

(D) Subdivision plats for minor and major subdivisions will not be approved by the Planning Office or recorded until the subdivision roads are completed, field verified, compaction requirements have been achieved, and the data has been checked for authenticity by the Engineering Coordinator.

(E) A Certificate of Occupancy will not be issued until the person financially responsible provides a statement under oath that the site has been field-verified for compliance with this chapter.

§ 158.11 PROHIBITED SLOPES.

(A) Any slope or contiguous series of graded or filled slopes forty feet (40') in vertical height or taller, and steeper than 1:1 for cut slopes and/or steeper than 1.5:1 for fill slopes, shall not be allowed unless a variance is granted by the Engineering Review Board. In considering a variance request, the Board shall consider whether other alternatives exist, slope factor of safety, stability, and likelihood of failure among other items. Such variance requests shall be accompanied by a completed plan as specified in Section 158.13 hereof. A variance will not be granted for this condition in any case where the Financially Responsible Person has not obtained a professional inspection.

§ 158.12 SETBACK REQUIREMENTS.

(A) Slope construction or slope repair shall not be allowed within setbacks. Such setbacks are to be established by the Engineering Review Board. Setbacks may be established on any adjoining property line, natural resource, lake, natural watercourse, or public right-of-way unless a prior setback has been established.

(B) The Engineering Review Board will be responsible for establishing a standard operating procedure for determining setbacks. Storm water diversions within a setback should protect disturbed areas from upslope runoff and should be of sufficient width so as to contain measures, structures, or other devices adequate to divert and carry runoff subject to crossing the slope either over, under, through, around or away from the slope face in a safe and non-erosive manner. All diversions shall be stabilized. The diversions shall be constructed to carry the runoff from the 25- year storm using calculations approximating the maximum urbanization of the watershed contributing runoff, based upon runoff data contained within the North Carolina Erosion and Sediment Control Planning and Design Manual. Diverted flows should be directed to and exit upon or into stabilized areas, channels, or mitigated to the closest natural watercourse.

§ 158.13 PLAN REQUIRED.

(A) Persons conducting development on any property creating artificial slopes steeper than 1:1 cut and 1.5:1 fill and greater than fifteen feet (15') in vertical height shall submit a slope construction plan, slope repair plan or slope stabilization plan for the activity. This plan shall be prepared by a design professional and contain such architectural and engineering drawings, maps, assumptions, calculations, analysis, and narrative statements as needed to adequately describe the slope development, construction or repair activity, and the measures planned to comply with the requirements of this chapter using methods, requirements, and criteria of engineering standards approved for use in the State of North Carolina. Plans submitted to the Engineering Coordinator shall consider and incorporate as is appropriate such forms or worksheets as follow:

- (1) A description of how the work will be accomplished.
- (2) A specific time schedule for various stages of the slope development or repair.
- (3) Maps showing the following site-appropriate features shall also be supplied:

(a) A true scale of at least one inch equals 60 feet and a contour interval not to exceed five feet. Not-to-scale maps or measures will not be acceptable.

(b) Boundaries, interior lines or easements, relation to streets, roads, or highways, proposed location and height of all retaining walls, delineation of all cut and fill slopes, length of slope, shape of slope, steepness of slope, placement within slope of structures or appurtenances, scale and north arrow, proposed drainage easements, road locations and centerlines, as well as accurate estimates, cross-sectional views, and surface area calculations.

(c) Existing surrounding conditions including buildings, septic tank and drain field locations, driveways, creeks, or other bodies of water, wetlands, seeps, springs, culverts, bridges, road grades, areas of special environmental concern or those subject to any hazard from slope failure from the activity, or other information which may be pertinent in evaluation of the plan.

(d) Soils, soil types, soil analysis, rock types, analysis of the strike and dip of rock formations, stability and load-bearing capability of rock and soil formations from the standpoint of strength of the material, compaction of fills, compacted or engineered lifts, water-bearing formations and hydrology, aspect, benches, terraces, drainage patterns and topographic conditions, base preparation, other criteria as specified by the designer, proposed groundcover, proposed methods for intercepting storm water runoff, and ground water conditions so as to protect the slope from unstable saturation, the geomorphology of the area relating to soil stability and mass wasting, and any other item of consideration that may be important in addressing site-specific slope stabilization.

(e) Delineation of cut slopes and fill slopes, proposed soil densities, waste areas, ditches, measures and structures, existing and proposed groundcover.

(f) Supporting documentation, calculations, cubic-yardage estimates and proposed methods used for slope development design or slope repair plans shall be submitted as part of the plan.

(g) The Engineering Coordinator shall have thirty (30) days in which to approve, approve with modifications, or disapprove the plan.

(B) Upon completion of the cut and or fill activity, the slope plan design professional must provide verification the slope work was completed in accordance with this chapter, the permitted plans and drawings, and criteria of engineering standards approved for use in the State of North Carolina. Failure by the owner or person financially responsible to submit the required certification to Haywood County within sixty (60) days of work completion shall be considered a violation of this chapter. Certification shall be site-specific in description and shall address application of methods, requirements, and criteria of engineering standards approved for use in the State of North Carolina.

(C) RESERVED.

(D) Persons conducting regulated slope construction, stabilization, or repair activities shall file three copies of the plan with the Engineering Coordinator. If the Engineering Coordinator, either upon review of such plan or upon inspection of the job site, determines that a significant risk of failure exists, then in consultation with the Engineering Review Board, the Engineering Coordinator will have the authority to require a revised plan. Pending the preparation of a revised plan, permits to conduct slope construction or slope repair activities may be rescinded and work stopped or allowed to continue under conditions outlined by the Engineering Review Board.

(E) Plans for slope construction, slope stabilization, or slope repair will be disapproved unless accompanied by an authorized statement of financial responsibility and ownership, and a performance commitment approved by the County Attorney to guarantee compliance with the provisions of this chapter. The person financially responsible for the slope development activity or his/her attorney shall sign the statement of financial responsibility and ownership. The property owner shall also sign the statement. The statement shall include the mailing and street address of the principal place of business of the person financially responsible and of the owner of the land or the owner's registered agents.

(F) If the person financially responsible is not a resident of North Carolina, a North Carolina agent must be designated in the statement for the purpose of receiving notice of compliance or noncompliance with the plan, this chapter, or rules or orders adopted or issued pursuant to this chapter.

(G) Whenever the financially responsible person dismisses, changes, or replaces the agent or the principal land-disturber of the tract under development, then the financially responsible person shall notify the Engineering Coordinator or his/her agent of the dismissal, change, or replacement of agent or land-disturber within five (5) business days. This requirement will help ensure continuity in the line of communication between the county and the person in charge of project development, avoid possible delays in construction, and maintain control of the slope development or repair activity by making sure any new person or persons have a copy of the approved plan at the job site.

(H) The Engineering Coordinator will review each complete plan submitted; and within 30 days of receipt thereof, will notify the person submitting the plan that it has been approved, approved with modifications, approved with performance reservations, or disapproved. If no action is taken to approve or disapprove a slope construction or repair plan within 30 days of receipt, the plan shall be deemed approved, except in the following condition: if the Engineering Coordinator in his/her best judgment feels the plan will probably not succeed, even if correctly installed or constructed as submitted, the 30-day time for approval shall not begin until the submission of adequate information. In such case, the Engineering Coordinator shall notify the person financially responsible by certified mail, registered mail, or other means constituting actual notice that additional information is necessary to complete the review process. If, following commencement of a slope construction or repair activity pursuant to an approved plan, the Engineering Coordinator determines that the plan is inadequate to meet the requirements of this chapter, the Engineering Coordinator may require such revisions as are necessary to comply with this chapter.

(I) The county reserves the right to consult other professional opinions on any plan required by this chapter.

§ 158.14 CRITICAL SLOPES.

(A) Whenever the Engineering Review Board determines that a critical slope may exist, the owner of the property upon which the slope is located, or other person or agent in control of said property, upon receipt of notice from the Engineering Review Board or its designate, shall within a time period as determined by the Engineering Review Board, have a professional inspection performed upon the area of concern addressing the recommendations and requirements of this chapter and provide those results to the Engineering Review Board or its designate.

(B) After review of site conditions and any professional opinions, including the professional inspection required by paragraph (A) of this section, the Engineering Review Board shall have the authority to require the owner of the property upon which the critical slope is located, or other person or agent in control of said property, to repair the slope to adequately eliminate the hazard in

order to be in conformance with the requirements of this chapter, within a time period as determined by the Engineering Review Board. Notification to the person responsible or the landowner shall be by the same methods as those required for actual notice for a violation of this chapter.

§ 158.15 EMERGENCY SLOPE REPAIR.

In the event a critical slope is displaying signs of failure, or further slope failure has a high probability that it may result in a negative impact to any property containing a land-disturbing activity, or to any adjacent property or natural resource; or if there is a high probability that public welfare may be negatively impacted by further failure on any property containing the critical slope, emergency repairs may be performed without approval from the county provided that:

- (1) A design professional is consulted on the site during the emergency repair, or as soon as possible; and
- (2) Repairs are supervised by a design professional for the completion, final stabilization, or endorsement of the emergency repair.

§ 158.16 UTILITIES IN ARTIFICIAL SLOPES.

Any pipe or conduit in a minor or major subdivision which is designed to be in or placed in a fill slope, must be placed or constructed within stable fill slopes. A professional inspection shall be provided to the Engineering Coordinator and shall include a statement that the work has been designed and or constructed in accordance with applicable standards of practice in western North Carolina at the time of design and or construction. All reasonable technologies should be utilized in the design and construction of the fill slope so as to consider prevention of slope saturation resulting from a sewer line or water line leakage. The person financially responsible for the work will provide adequate certification of this installation or construction to the Engineering Coordinator within 60-calendar days of completion of the work.

§ 158.17 CONSTRUCTION OBSERVATION

Periodic observation by a design professional is recommended for any land-disturbing activity in or on cut slopes steeper than 1:1 (h:v) or fill slopes steeper than 1.5:1 (h:v) and greater than fifteen feet (15') in vertical height.

§ 158.18 PERMIT EXPIRATION.

(A) When work under a Slope Construction Permit or a Land-Disturbing Permit is not completed as per the approved plan or conditions of this chapter or Chapter 154 of the Haywood

County Code of Ordinances within eighteen (18) months following the issuance of the Permit, the Slope Construction Permit and or the Land-Disturbing Permit shall be deemed expired.

(B) If the county deems complete installation of the plan as originally approved will adequately stabilize the site, renewal of the permit will be given upon payment by the person financially responsible of a fee equal to 100% of current plan review fees. The fee shall be based on the size of the original area permitted upon the tract.

(C) Slope construction or slope repair activity outside the original approved limits shall be a violation of this chapter.

§ 158.19 HAYWOOD COUNTY ENGINEERING REVIEW BOARD.

(A) *Creation.* In order to provide a procedure for appeals, as outlined in division (I) of this section, the Haywood County Engineering Review Board is created. The Board shall be a seven-member board composed of the following appointees:

(1) One supervisor from the Haywood Soil and Water Conservation District Board, nominated by that board.

(2) The Chairman of the Board of County Commissioners or his/her appointee.

One appointee of the County Commissioners from each of the following groups or organizations:

(3) A licensed, registered general contractor; or an established land-disturber,

(4) A licensed, registered professional civil engineer,

(5) A licensed, registered professional land surveyor,

(6) Two persons from the following categories: geologist, soil scientist, engineering geologist, geotechnical engineer, landscape architect, engineering intern, professional engineer, or established professional environmental consultant.

(B) All members shall be appointed to staggered three-year terms, with all elected officials, who are appointed ex-officio, serving only during the duration of their office.

(C) Individuals nominated for the Engineering Review Board shall be approved by the Haywood County Board of Commissioners, who shall make the final appointments.

(D) In the event that qualified individuals from the designated organizations or groups are unavailable, the County Commissioners may appoint members at-large who have special or unique qualifications relevant to the guidance of the policies of this chapter. In choosing members-at-large,

the County Commissioners shall make selections based upon persons having the highest educational background, appropriate experience, and compliant work history.

(E) *Responsibilities.* The Engineering Review Board shall be responsible for providing direction for the administration of this chapter, recommendations as to standard operating policy, or recommending policy changes as may be needed from time to time. The Engineering Review Board shall make decisions in matters concerning forfeiture of surety, civil and criminal penalties, or injunctions against individuals in violation of this chapter, in consultation with the County Attorney. The Engineering Review Board will be sensitive at all times to the complicated nature of conditions relating to administration of this chapter; specific to the fact that, coordination and communication with other boards, agencies, or peripheral control officials, will be necessary in order to interface overlapping jurisdictional issues in a courteous, professional and effective manner.

(F) The Engineering Review Board may establish standard operating procedures for the administration of this chapter, including control options based upon slope classifications derived from mapping programs or other technical data, and bonding or surety requirements.

(G) The Engineering Review Board will establish civil penalties for violations of this chapter.

(H) The Engineering Review Board may establish fees associated with the administration of this chapter.

(I) *Opportunities for appeal.*

(1) The appeal of a disapproval or approval with modifications of a plan shall be governed by the following provisions:

(a) The disapproval or modification of an application or a plan to conduct slope construction or repair by the Engineering Coordinator will entitle the applicant to appeal to the Engineering Review Board.

(b) The Engineering Coordinator shall advise the applicant, in writing, as to reasons that a plan is disapproved or approved with modifications. The applicant may appeal the Engineering Coordinator's disapproval or approval with modifications of the plan directly to the Engineering Review Board.

(J) Appeal hearings will be conducted within 45-calendar days after the Engineering Review Board receives written request for appeal. Only written requests for appeal received within 14-calendar days of any action by the Engineering Coordinator, that qualify for appeal, will be considered. If the appeals hearing is not conducted within the specified time frame, the appeal is deemed upheld.

(K) If the Engineering Review Board upholds the action by the Engineering Coordinator in the case of disapproval or modification of a submitted slope construction or repair plan, the person submitting the appeal shall then be entitled to appeal the Engineering Review Board's decision to the

Haywood County Board of Commissioners. Judicial review of the final action of the Haywood County Board of Commissioners shall be to the Superior Court of Haywood County, upon appeal by an aggrieved party.

(L) Any fines levied during the appeal period shall accrue and be payable by the responsible individuals so long as the violations remain. Upon conclusion of the appeals process, either the responsible party must pay all applicable fines; or if the appeal is upheld, all applicable fines shall be forfeited by the county and returned to the successful appellant.

§ 158.20 PENALTY.

Civil penalties assessed for any violation of this chapter by action of the Haywood County Engineering Review Board will be in addition to any other penalty fees assessed for violations of any other regulated condition.

§ 158.21 SEVERABILITY.

If any section or sections of this chapter is/are held to be invalid or unenforceable, all other sections shall nevertheless continue in full force and effect.