

§ 135-1111. Appeals.

Appeals of an adverse decision shall be made to the Superior Court. The Court's review shall be limited to whether the decision was supported by substantial evidence.

§ 135-1112. Penalties.

- A. Any person who violates any provisions of this bylaw, if convicted, shall be fined an amount not to exceed \$50 a day.
- B. Each day that the offense continues shall be considered to be a separate violation.

§ 135-1113. Conflict with other regulations.

The provisions contained within this bylaw shall not relieve any person from complying with other laws, statutes, codes, regulations or bylaws of the Commonwealth of Massachusetts or the Town of Braintree.

§ 135-1114. Severability.

If any of the provisions of this bylaw are held to be unconstitutional or otherwise invalid by any court of competent jurisdiction, the remaining provisions will remain in force.

ARTICLE XII
Grading Regulations, Quarry Operations and
Erosion Control Regulations
[Amended 5-11-1994 ATM by Art. 56; 10-18-1999
STM by Art. 29; 5-7-2003 ATM by Art. 37]

§ 135-1201. Grading regulations.

- A. Purpose. The purposes of the grading regulations are to:
 - (1) Protect the safety, health and welfare of the residents of Braintree by regulating grading activities;
 - (2) Minimize adverse impacts associated with grading;
 - (3) Prevent damage to property, public facilities and utilities;
 - (4) Prevent the destruction of vegetation and the loss of soils by minimizing soil erosion and sedimentation;
 - (5) Minimize surface water runoff and diversion that may contribute to flooding and loss of water quality.
- B. Applicability.

- (1) With the exception of the activities listed in § 135-1201C, no grading shall occur on a site without a building permit or grading permit (Quarries are further regulated under § 135-1202.)
 - (2) The Inspector of Buildings may issue a building permit for grading, where grading:
 - (a) Has cuts or fills of less than two feet in depth at the deepest points measured from existing grade;
 - (b) Imports or exports less than 150 cubic yards (cy) of material;
 - (c) Cumulatively disturbs less than 5,000 square feet of area;
 - (d) Does not obstruct a drainage course; and
 - (e) Does not create unstable slopes.
 - (3) Grading for which a building permit cannot be issued shall require a grading permit issued by the SPGA.
- C. Exemptions. The following activities do not require the issuance of a grading permit:
- (1) Grading undertaken as part of a special permit or site plan reviews approved after the date of adoption of § 135-1201;
 - (2) Constructing a street shown on a subdivision plan endorsed by the Planning Board after the date of adoption of § 135-1201;
 - (3) Maintaining, resurfacing or reconstructing an existing street, provided said activity is supervised by the Town;
 - (4) Installing, reconstructing or repairing underground public utilities, provided said work shall be backfilled to existing grade upon completion of work or within 45 days after start of the work, whichever is sooner;
 - (5) Maintaining or reconstructing municipal parks, playgrounds and golf courses;
 - (6) Removing or replacing an underground storage tank that is subject to regulation by a state or federal agency;
 - (7) Excavating for geological investigation supervised by an RPE or licensed site professional, provided said work shall be backfilled to existing grade at the end of each work day;
 - (8) Maintaining a private driveway or accessway existing prior to the date of adoption of § 135-1201, provided said maintenance involves less than 150 cy of material;
 - (9) Maintaining existing private lawns, including adding or removing less than 12 cy/acre of topsoil, compost, sand, loam or other soil amendments in a calendar year, provided any increase in elevation shall not exceed six inches;
 - (10) Grading for construction of a single-family residence authorized by a valid building permit, provided that less than 150 cy earth material are removed or added to the site in connection with the building permit.
- D. Denial of permit.

- (1) The SPGA shall not issue a grading permit where the proposed grading:
 - (a) Would cause hazard to the public health, safety or welfare;
 - (b) Would endanger an adjoining lot, result in the deposition of debris or sediment on a public street, endanger public utilities or result in any hazard of contamination;
 - (c) Will occur in an area that is subject to geological hazard;
 - (d) Would foul, obstruct or impede the flow of any water body, drain or sewer.
 - (2) If it can be shown to the satisfaction of the SPGA that implementing mitigative measures can eliminate the hazard, a grading permit may be issued conditioned on the elimination of said hazard.
- E. Emergency situation.
- (1) If the Inspector of Buildings determines there is an immediate danger to the public health or safety from a landslide, flood, earthquake or other natural calamity requiring grading, he may authorize corrective action.
 - (2) If grading occurring under a grading permit creates an immediate danger to the public health or safety, the SPGA may revoke the grading permit or require corrective action.
- F. Time frame.
- (1) Grading shall be completed within the time frame specified in the grading permit or within 180 days if no time limit is specified.
 - (2) If an applicant presents satisfactory evidence that unusual circumstances have prevented completion of grading within the specified time, the SPGA may extend a grading permit one time only for a period not to exceed one year.
- G. Procedures for application.
- (1) A grading permit may be issued by affirmative vote of a majority of the SPGA only after a public hearing with public notice given in accordance with c. 40A § 11.
 - (2) Application for a grading permit shall include a grading plan and report prepared and stamped by an RPE.
- The grading plan shall be of appropriate scale to show location and details of all proposed grading activities and shall include, where applicable:
- (a) A general vicinity map, scale, North arrow, benchmark and datum;
 - (b) The legal names and addresses of the owner of the property involved, the petitioner and abutting property owners, including those across a street;
 - (c) Property lines, easements and dimensions, building setbacks and total area of the lot;
 - (d) Existing and finish grades at two-foot contours with the contour lines extended a minimum of 50 feet beyond the site's boundaries;

- (e) Location, dimensions and elevation of existing and proposed buildings and structures, retaining walls, roads, driveways, parking lots, utilities and drainage structures on site and within 50 feet of the site's boundaries;
- (f) Location of water bodies, wetlands, wetland buffers, floodplains, drainage structures and any proposed alteration to drainage on site and within 50 feet of the site's boundaries;
- (g) Location of access streets, access points, and construction entrances;
- (h) Location of graded areas, shaded and labeled "graded area," and of on-site disposal or borrow areas;
- (i) Location of known soils and of geologic hazard areas on the site;
- (j) Location of proposed erosion and sedimentation controls;
- (k) Location of proposed mitigative measures such as revegetation, retaining walls and visual screening;
- (l) Location of vegetation to be removed with number of trees/shrubs to be removed, retained or replanted;
- (m) Plan details on utilities, drainage structures, walls, cribbing, dams, berms, settling ponds or other water control devices to be constructed;
- (n) Slopes of all cut and fill areas;
- (o) Cross section drawings (no fewer than two) that show:
 - [1] Maximum depth of fill and maximum height of cuts.
 - [2] Existing and proposed buildings and their setbacks from cut or fill slopes;
 - [3] Existing and finish grades extending a minimum of 20 feet beyond the scope of work;
 - [4] Retaining walls and the grade on either side of the walls for at least 20 feet.

The grading report shall include, where applicable:

- (a) Description of the work to be performed under the grading permit;
- (b) Start and completion dates;
- (c) Quantities of earth materials impacted by grading and area to be graded;
- (d) Description of erosion, drainage and dust control measures to be implemented;
- (e) Location of off-site disposal areas and quantity of earth materials and vegetation to be removed from the site;
- (f) Description of the type of backfill to be used, using ASTM Unified Soils Classification System for identification;
- (g) Quantity of earth materials to be imported to the site during grading and the source of the material.

- (3) If a project is so large or complex that a plan encompassing the total project cannot reasonably be prepared prior to initial groundbreaking, an applicant may seek authorization from the SPGA to undertake grading incrementally. Approval of phased grading activities shall take place in 2 steps:
 - (a) An overall conceptual plan of the entire development shall be submitted to the SPGA for review and approval.
 - (b) Detailed plans showing the nature and extent of the work to be completed during each phase shall be prepared by an RPE and submitted to the SPGA for review and approval.
- (4) An applicant shall provide any additional information the SPGA may determine necessary for its review.

H. Grading standards.

- (1) General grading standards.
 - (a) Grading shall not increase turbidity, siltation or pollution in a water body or create or contribute to landslides, accelerated soil creep, settlement, subsidence, flooding, erosion.
 - (b) Grading shall expose to erosion the smallest area of soil for the least possible time.
- (2) Import and export of earth material.
 - (a) Site access shall be restricted to points designated on a plan and shall be controlled by a gate or other suitable barrier.
 - (b) Access drives shall have the minimum sight distance required under § 135-809. Absent the required sight distance police details shall be posted. Access drives shall be constructed of gravel or equivalent material to prevent mud and debris from being deposited onto access streets. The last 50 feet of an access drive's approach to the intersection with a public street shall have a grade less than 3%.
 - (c) When in excess of 150 cy of earth material is to be transported over a public street, the SPGA may restrict transporting to access streets and require:
 - [1] That water and/or dust palliative be applied to alleviate or prevent dust during loading or transport of said materials; and
 - [2] The posting of "Trucks Entering" signs on the public roadway 400 feet on each side of the site's access. The warning signs shall be covered or removed when the access intersection is not in use.
- (3) Boundary location. The SPGA may require staking of property lines, limits of grading, top and toe of the fill and all areas where construction equipment is to be excluded. Stakes shall be at least two-inch by two-inch posts 36 inches in length above existing grade and shall be maintained and viable during grading activities.
- (4) Clearing standards.

- (a) Existing vegetation shall be preserved unless a grading permit authorizes removal of said vegetation.
 - (b) All natural drainageways shall be clearly marked, and a minimum buffer of 25 feet on each side of such drainageways shall remain undisturbed.
 - (c) Clearing activities shall be limited road or driveway construction, utility installation and building pad construction. Trees and areas of undergrowth to be removed shall be clearly identified on the grading plan. On site, clearing limits shall be clearly marked with brightly colored tape or plastic.
 - (d) Grading equipment shall be kept outside the drip line of any trees to be retained.
 - (e) Unauthorized removal of trees or other vegetation or the backfilling or compaction of soil around trees to be retained shall be a violation of § 135-1201 and require immediate restoration using five- to ten-year-old stock planted at a 3:1 ratio of new plants to removed or damaged plants.
 - (f) Filling of more than six inches shall require retaining walls around trees six inches in caliper or larger.
- (5) Excavation.
- (a) There shall be no excavation below designed finish grade except as needed for placement of reclamation materials.
 - (b) There shall be no excavation below the estimated seasonal height of the ground water table.
- (6) Compaction.
- (a) Nonstructural fill material shall be placed in twelve-inch uncompacted lifts and compacted throughout their full extent to 90% of the maximum dry density of the material used as determined by ASTM Method 1557 or approved equal.
 - (b) Structural fill material shall be placed in twelve-inch uncompacted lifts and compacted throughout their full extent to 95% of the maximum dry density as determined by ASTM Method 1557 or approved equal.
 - (c) Fill material for landscaping is exempt from compaction requirements.
- (7) Drainage.
- (a) Cut and fill slopes and terraces shall be provided with subsurface drainage as necessary for stability.
 - (b) Water shall not pond above cut or fill slopes or on drainage terraces. Drainage facilities shall be provided to prevent such ponding.
 - (c) Areas designed for buildings shall be graded away from the building for a minimum of six feet at a slope of 24 horizontal to one vertical.
 - (d) Dikes, swales, ditches, percolation devices or other conveyance mechanism shall be designed to control runoff and erosion from graded areas and to improve water quality by removing suspended solids. Where concentrated runoff

discharges onto natural ground, measures shall be taken to dissipate the energy and release the runoff as sheet flow.

- (8) Encroachment.
- (a) Grading shall not encroach upon an adjoining lot unless the SPGA is provided:
- [1] Proof that the applicant owns the adjoining lot;
 - [2] An easement, granted by the owner of the lot, authorizing grading on said lot; or
 - [3] A letter signed by the owner of the lot authorizing temporary encroachment for a temporary change of grade or stockpiling.
- (b) When grading alters an existing grade, adjoining lots shall be protected from encroachment or collapse by a retaining wall or by grading to a safe slope. The design for any retaining wall with an exposed height exceeding four feet at any point shall be stamped by an RPE acting within the area of his expertise.
- (9) Erosion control. Grading shall comply with § 135-1203, Erosion control regulations.
- (10) Expansive soils. If organic or soft cohesive soils are found within two feet of the finish grade of an intended building location, said soils shall be removed to a depth specified by an RPE and replaced with properly compacted nonexpansive gravel borrow.
- (11) Fill material. The SPGA may specify the characteristics of the fill material used, including the degree of compaction, moisture content and method of placement. Fill material shall comply with the following:
- (a) Fill materials shall be composed of earth materials. Rock or similar irreducible material used in fill shall be of a maximum diameter of six inches and shall compose not more than 20% of the total fill material.
 - (b) Fill materials shall not contain any organic material unless approved by the SPGA, any frozen or thawing material, solid waste, building debris, asphalt, concrete or hazardous waste or material.
 - (c) With the exception of the upper six inches of a fill site, topsoil shall not be used as a fill material.
- (12) Setbacks.
- (a) Cuts or fills five feet in depth or greater shall be set back a minimum of 25 feet from property lines. Setback distances shall be horizontal distances measured perpendicular to the site boundary.
 - (b) Fills shall be located so that the base edge of the fill is more than 12 feet horizontally from the top edge of an existing slope or a planned cut slope. Fill shall not be placed on top of slopes steeper than 1.5 horizontal to one vertical.

- (c) The tops and toes of cut and fill slopes shall be set back from property lines as far as necessary for the safety of adjoining lots and to prevent damage resulting from runoff or erosion of the slopes.
 - (d) The setbacks specified above may be increased by the SPGA if necessary for safety and stability, to prevent damage to adjoining lots or to provide access for slope maintenance and drainage. Retaining walls may be used to reduce the required setbacks if approved by the SPGA.
- (13) Slopes. All slopes shall conform to state and federal regulations. Cuts shall not be steeper in slope than two horizontal to one vertical. A steeper slope may be allowed if an RPE certifies that said slope will be stable, will not endanger an adjoining lot, deposit debris on a public way or interfere with any existing drainage course. The slope of cut and fill surfaces shall be no steeper than is safe for the intended uses.
- (14) Surface preparation. The ground surface shall be prepared to receive fill by removing vegetation, noncomplying fill, topsoil and other unsuitable materials and by scarifying the ground surface to provide a bond for the new fill. A slope that is steeper than three horizontal to one vertical and the height of which is greater than five feet shall be benched into sound bedrock or other competent material as determined by an RPE. The bench under the toe of a fill shall be at least 10 feet wide, except when an RPE determines it to be unnecessary.
- (15) Terraces.
- (a) Terraces in soil at least four feet in width shall be established at not more than ten-foot vertical intervals on all cut and fill slopes to control surface drainage and debris. Where only one terrace is required, it shall be at mid-height. Terrace widths and spacing for cut and fill slopes greater than 90 feet in height shall be designed by an RPE. Suitable access to terraces shall be provided to permit cleaning and maintenance. This may be waived by the SPGA, provided documentation is provided by an RPE.
 - (b) Terraces in rock at least six feet in width shall be established at not more than thirty-foot vertical intervals on all cut and fill slopes to control surface drainage and debris. Where only one terrace is required, it shall be at mid-height. Terrace widths and spacing for cut and fill slopes greater than 90 feet in height shall be designed by an RPE. Suitable access to terraces shall be provided to permit cleaning and maintenance. This may be waived by the SPGA, provided documentation is provided by an RPE.

§ 135-1202. Quarry operations.

- A. Coordination with grading regulations. An application for a special permit for a quarry operation shall comply with Braintree Zoning Bylaw § 135-1201. Where § 135-1202 has more stringent standards, § 135-1202 shall prevail.
- B. Denial of permit. The SPGA shall not issue a special permit where a proposed quarry operation would:

- (1) Cause hazard to the public safety or welfare, or constitute a nuisance;
- (2) Produce noise or observable dust at the lot line in an amount detrimental to the normal use of an adjoining lot.
- (3) Result in traffic hazard, particularly in residential areas, or congestion on or damage to public streets;
- (4) Result in a change in topography or ground cover disadvantageous to the most appropriate use of the land;
- (5) Cause surface or subsurface drainage to adversely affect an adjoining lot.

C. Standards for quarrying.

- (1) No quarry operation shall occur within 250 feet of a property line or 300 feet of a public street as measured in a straight line from the street or property line to the area of the quarrying.
- (2) Equipment used in a quarry operation shall not be located within 250 feet of a public street or property line.
- (3) Topsoil shall be stripped to a depth of 12 inches and stored separately on site for use in reclamation.
- (4) The area in which quarrying is taking place shall be clearly marked and posted with no-trespassing signs. The SPGA may require fencing or other barrier where excavations exceed a depth of four feet.
- (5) The course or configuration of any drainageway or waterway shall not be changed unless approved by the SPGA. Quarry operations shall not cause the ponding of water unless authorized as part of a reclamation plan.
- (6) Roadway maintenance.
 - (a) Roadways used for transportation of material must be swept clean and cleared of material spilled from trucks at least once each 48 hours, and more if required.
 - (b) Any repairs or cleaning of roadways performed by the Town as a result of the earth removal operation shall be paid for by the quarry operator.
- (7) Within six months of termination of quarry operations, all buildings and structures used in quarrying shall be dismantled and removed at the expense of the quarry operators.
- (8) If a quarry operation requires the use of explosives, a copy of the blaster's current license, bond and Town of Braintree permit shall be provided to the SPGA.
- (9) The only materials that may be brought onto the site are explosives necessary for removal of earth materials and soil/landscaping materials needed to implement the approved reclamation plan.

- D. Reclamation. Within six months of the termination of quarry activities, land areas that have been disturbed shall be reclaimed in accordance with a reclamation plan approved by the SPGA and with the following standards:

- (1) Areas from which trees have been removed and which are visible from a street shall be implanted with trees using five- to ten-year-old stock.
 - (2) Except for exposed rock ledge, disturbed areas shall be spread with a minimum of six inches of topsoil and planted with grass or other ground cover suitable to erosion.
 - (3) All earth and vegetative debris shall be removed and lawfully disposed of.
 - (4) All slopes shall be graded so as not to exceed a slope that is two horizontal to one vertical. A steeper slope may be allowed if an RPE certifies that said slope will be stable, will not endanger an adjoining lot, deposit debris on a public way or interfere with any existing drainage course. The slopes of cut and fill surfaces shall be no steeper than is safe for the intended final uses.
- E. Approval. In approving a special permit, the SPGA may impose reasonable conditions to regulate quarry operations and hours of operation.
- F. Bonding. The SPGA may require a bond or other security to be provided to the Town to insure compliance with the special permit.
- G. Time frame. Any special permit for a quarry operation shall automatically expire within the time frame specified in the special permit or within 24 months if no time limit is specified. To request an extension a quarry operator must submit a written request 60 days prior to expiration of the special permit. The SPGA, at its discretion, may extend a permit or may require a public hearing on said extension.
- H. Existing quarry operations. A quarry in lawful operation on the date of adoption of § 135-1202 may continue until such time it is abandoned. However, unless specifically authorized by a new special permit:
- (1) The depth of excavation shall not exceed the grade of the lowest point excavated on the date of adoption of § 135-1202.
 - (2) The total area of land disturbance within the quarry operation shall not be increased by more than 50% over the area disturbed on the date of adoption of § 135-1202.
 - (3) The average daily amount of materials extracted or removed shall not be increased by more than 50% over the daily average for the 12 consecutive months preceding the date of adoption of § 135-1202 or for the actual period of operation, if less than 12 months.

§ 135-1203. Erosion control regulations. [Added 5-7-2003 ATM by Art. 38]

- A. Preamble. Uncontrolled excavation, grading and land disturbance may cause excessive quantities of soil to erode. Erosion, and resulting sediment, requires the costly repair of roads and embankments; creates excess turbidity; clogs storm drains and swales; muddies streams; silts rivers and lakes and limits the use of water for most beneficial purposes. Sediment-choked streams are unsightly, and reduced channel capacity may result in flooding.
- B. Purpose. The purposes of the erosion control regulations are to:

- (1) Reduce damage from sediment and erosion by controlling stormwater runoff (runoff) and by protecting exposed or disturbed areas;
 - (2) Protect surface and ground water quality, minimize erosion and reduce flooding by restricting runoff to nonerosive velocities through the use of erosion and runoff control measures (control measures);
 - (3) Incorporate control measures into site planning at an early stage in the design process;
 - (4) Prevent the unnecessary stripping of vegetation and loss of soils especially adjacent to water bodies;
 - (5) Prevent land disturbance that may cause mass movement, slumping or erosion of land surfaces;
 - (6) Prevent excess turbidity in water bodies;
 - (7) Minimize maintenance and repairs to roads, embankments, swales, streams, water bodies, stormwater control facilities, and adjoining lots;
 - (8) Retain appropriate performance guaranties to ensure compliance with permits.
- C. Intent. Section 135-1203 allows broad discretion to address the impacts from land disturbance so long as control measures comply with the objectives and design standards. Section 135-1203 therefore does not specify or mandate specific control measures. They provide the flexibility to choose control measures subject to review by the SPGA. Section 135-1203 is intended to supplement provisions of the Wetlands Protection Act (Act). Where § 135-1203 is less restrictive than the Act, the provisions of the Act shall govern.
- D. Applicability.
- (1) Section 135-1203 shall apply to every land disturbance where:
 - (a) Site work involves excavating or filling more than 150 cy of material;
 - (b) Site work cumulatively disturbs more than 5,000 square feet;
 - (c) Site work will occur on a slope greater than 15%;
 - (d) A site contains highly erodible soils;
 - (e) A site directly drains into a water body; or
 - (f) The SPGA determines that there is a high potential for environmental degradation from erosion or runoff.
 - (2) A single-family residential site may be exempted from § 135-1203, provided land disturbance will not disturb more than 5,000 square feet and adequate control measures are incorporated into a development.
- E. Application for erosion control permit. Persons wishing to engage in land disturbance activities shall apply to the SPGA for an erosion control permit in accordance with these regulations and said activities shall not begin unless said permit has been issued.

- F. Erosion and stormwater runoff control plan. Application for an erosion control permit shall be accompanied by an erosion and stormwater control plan and report prepared and stamped by a RPE in accordance with the methods and measures identified in:

“The Massachusetts Erosion and Sediment Control Guidelines for Urban and Suburban Areas: A Guide For Planners, Designers, and Municipal Officials” (EOEA)

“Guidelines for Soil and Water Conservation in Urbanizing Areas of Massachusetts” (Natural Resources Conservation Service)

The erosion and stormwater control plan shall be of appropriate scale to show location and details of all proposed activities and shall include, where applicable:

- (1) North arrow, scale, benchmark and datum;
- (2) Wetlands, water bodies and floodplains;
- (3) Existing and final grades at two-foot contour intervals extending at least 50 feet beyond the site's boundary;
- (4) Existing vegetation, including existing tree lines, grassy areas and unique vegetation;
- (5) Boundaries of the different soil types on site;
- (6) Property lines;
- (7) Plans and elevations of streets, parking lots, water level of water bodies and wetlands, storm sewer inlets and outlets and the first floor of all existing and proposed structures;
- (8) Drainage dividing lines and direction of flow for the catchment areas on site during and after construction;
- (9) Areas with potentially serious erosion problems;
- (10) Limits of clearing and grading;
- (11) Location of utilities;
- (12) Location of the control measures to be installed on site illustrated with detail drawings;
- (13) Location of off-site and on-site access routes for construction and maintenance vehicles;
- (14) Locations of borrow and waste disposal areas;
- (15) Vegetation specifications for temporary and permanent stabilization;
- (16) Methods and location of concrete-wash disposal.

An erosion and stormwater control report shall include where applicable:

- (1) The nature and purpose of the development and the amount of grading involved;

- (2) The proposed stages of development including start and completion dates, the sequence of construction and grading activities, the sequence for installing control measures and for final stabilization;
- (3) Conditions on the site as they currently exist;
- (4) Neighboring areas such as roads, water bodies and residences that might be affected by the development;
- (5) The soils on site, including soil names, map unit, erodibility, permeability, texture and soil structure;
- (6) Areas with potentially serious erosion problems;
- (7) The methods which will be used to control runoff, erosion and sedimentation;
- (8) Specifications and calculations of how the site will be stabilized during and after construction;
- (9) The maintenance activities to be performed on the control measures.

G. Design standards.

- (1) Development shall be fitted to topography and soils so as to minimize erosion.
- (2) Land disturbance activity work shall not begin prior to the starting date specified in the plan.
- (3) Natural vegetation shall be retained and protected wherever possible.
- (4) Clearing, grading or other site work shall be done in a manner that will minimize erosion. Said activities shall be limited to the area required for immediate construction operations and for the shortest practical period of time.
- (5) Site drainage shall be designed to effectively treat increased runoff created during and after construction so that adjoining lots and downstream water bodies are protected from erosion.
- (6) Uncontrolled runoff shall not be diverted onto adjoining lots or into the storm drain or sewer system. Said runoff shall be disposed of at nonerosive velocities at established drainage locations.
- (7) Sediment transported by runoff shall be retained on site through the use of sediment basins, silt traps or other appropriate measures. Said measures shall be installed prior to clearing and grading to the extent practical.
- (8) Cut and fill slopes shall be constructed so as to minimize erosion. Slopes shall not be steeper than two horizontal to one vertical unless approved by the SPGA.
- (9) Diversions or other appropriate measures shall be installed at the top of cut and fill slopes to prevent uncontrolled drainage flows on the disturbed slopes.
- (10) Drainage swales used to divert runoff shall be vegetated and stabilized to control erosion in concentrated flow areas.

- (11) Storm drain inlets shall be protected so that runoff will not enter conveyance systems without first being filtered or otherwise treated to remove sediment.
- (12) Either temporary seeding, mulching or other suitable control measures shall be used to protect exposed critical areas during construction.
- (13) A site shall be maintained and/or watered to prevent dust erosion.
- (14) Grading shall not be permitted to continue if the SPGA determines that dust is significantly impacting adjacent ways or property.
- (15) Topsoil shall be stockpiled on site to the extent practicable for use on areas to be revegetated. Said soil shall be protected so that it does not erode.
- (16) Stockpiled construction materials shall be protected so that they do not erode.
- (17) Excavated materials shall not be deposited or stored near water bodies unless authorized by the SPGA.
- (18) Construction equipment shall not cross or disturb stream channels except by means of approved crossings.
- (19) In areas of the site where construction activities will cease for more than 21 days or have permanently ceased, temporary vegetation or other stabilization measures shall be initiated, weather permitting, within 14 days.
- (20) Where inadequate vegetation exists, temporary or permanent vegetation shall be established.
- (21) Permanent protective vegetation and erosion control structures shall be installed as soon as practical in the development. Permanent vegetation shall not be considered established until the ground cover is mature enough to satisfactorily control erosion. Ground cover shall not be considered mature until at least two growing seasons have elapsed.
- (22) Whenever construction vehicle access routes intersect public roads, provisions shall be made to minimize the transport of sediment (mud) by runoff or vehicle tracking onto said roads. Where sediment is transported onto a public road surface, the road shall be cleaned thoroughly at the end of each day or more often as required by the SPGA.

H. Maintenance.

- (1) All plans shall include a maintenance element which shall:
 - (a) Identify all of the control measures that will be inspected and maintained;
 - (b) Provide an inspection schedule for each control measure;
 - (c) List typical maintenance procedures for each control measure;
 - (d) Describe steps to take if additional repair is required;
 - (e) Provide forms and instructions for record keeping;

- (f) List the names of personnel assigned to each task and the training needed to be able to do the job.
- (2) An applicant carrying out control measures under these regulations, and all subsequent owners of lots on which said measures have been installed, shall adequately maintain said measures in accordance with the plan.
- I. Inspection and enforcement. The Inspector of Buildings shall enforce these regulations. If the Inspector of Buildings finds that on site conditions are in violation of these regulations or not as stated in the plan, the Inspector of Buildings may issue a stop-work order and direct the applicant to take corrective measures.
- J. construction certification by registered professional. For any site which requires a professional site plan the SPGA may require that a certified professional verify in writing that all control measures have been installed in accordance with the plan.
- K. Sequential applications. If a project is so large or complex that a plan encompassing the total project cannot reasonably be prepared prior to initial groundbreaking, an applicant may seek authorization from the SPGA to undertake major grading activities incrementally. Approval by the SPGA of phased grading activities shall take place in two steps:
 - (1) An overall conceptual plan of the entire development shall be submitted to the SPGA for review and approval.
 - (2) Detailed plans showing the nature and extent of the work to be completed during each phase shall be prepared by an RPE and submitted to the SPGA for review and approval.

§§ 135-1204 and 135-1205. (Deleted by amendment)

(Cont'd on page 13595)