

ORDINANCE NO. 2590

AN ORDINANCE to repeal Section 10A-7, to add a new section numbered 10A-7.1, and to amend and reordain Sections 10A-8, 10A-9 and 10A-19, Chapter 10A of The Code of the City of Alexandria, Virginia, 1963, as amended; which Chapter 10A relates to EROSION AND SEDIMENT CONTROL, which Section 10A-7 relates to EROSION AND SEDIMENT CONTROL PROGRAM; ADOPTION BY REFERENCE OF CERTAIN CHAPTERS OF THE STATE HANDBOOK, which new Section 10A-7.1 relates to MINIMUM CRITERIA; CITY HANDBOOK, which Section 10A-8 relates to EROSION AND SEDIMENT CONTROL PLANS, which Section 10A-9 relates to REGULATIONS AND RESTRICTIONS GENERALLY and which Section 10A-19 relates to TRANSITION.

THE CITY COUNCIL OF ALEXANDRIA HEREBY ORDAINS:

Section 1. That Section 10A-7 of The Code of the City of Alexandria, Virginia, 1963, as amended, be and the same hereby is repealed.

Section 2. That Chapter 10A of The Code of the City of Alexandria, Virginia, 1963, as amended, be and the same hereby is amended by adding a new section numbered 10A-7.1 to read as follows:

Sec. 10A-7.1. Minimum criteria; city handbook.

(a) The director of the department of transportation and environmental services and/or his or her duly authorized representative(s) shall administer and enforce the provisions of this chapter. Use of the title "director" in this chapter shall be construed to mean the aforesaid director and/or authorized representative(s).

(b) The city council hereby adopts the following general criteria as the minimum requirements for controlling erosion and sedimentation from land-disturbing activities:

(1) Stabilization of denuded areas and soil stockpiles.

a. Permanent or temporary soil stabilization must be applied to denuded areas within fifteen (15) days after final grade is reached on any portion of the site. Soil stabilization must also be applied within fifteen (15) days to denuded areas which may not be at final grade but will remain dormant (undisturbed) for longer than sixty (60) days.

Soil stabilization refers to measures which protect soil from the erosive forces of raindrop impact and flowing water. Applicable practices include vegetative establishment,

mulching and the early application of gravel base on areas to be paved. Soil stabilization measures should be selected to be appropriate for the time of year, site conditions and estimated duration of use.

b. Soil stockpiles must be stabilized or protected with sediment-trapping measures to prevent soil loss.

(2) Establishment of permanent vegetation.

A permanent vegetative cover shall be established on denuded areas not otherwise permanently stabilized. Permanent vegetation shall not be considered established until a ground cover is achieved which, in the opinion of the director, is mature enough to control soil erosion satisfactorily and to survive severe weather conditions.

(3) Protection of adjacent properties.

Properties adjacent to the site of a land disturbance shall be protected from sediment deposition. This may be accomplished by preserving a well-vegetated buffer strip around the lower perimeter of the land disturbance, by installing perimeter controls such as sediment barriers, filters, dikes, sediment basins or by a combination of such measures.

Vegetated buffer strips may be used alone only where runoff in sheet flow is expected. Buffer strips should be at least twenty (20) feet in width. If at any time it is found that a vegetated buffer strip alone is ineffective in stopping sediment movement onto adjacent property, additional perimeter controls must be provided.

(4) Timing and stabilization of sediment-trapping measures.

Sediment basins and traps, perimeter dikes, sediment barriers and other measures intended to trap sediment on-site must be constructed as a first step in grading and be made functional before upslope land disturbance takes place. Earthen structures such as dams, dikes and diversions must be seeded and mulched within fifteen (15) days of installation.

(5) Sediment basins.

Stormwater runoff from drainage areas with five (5) acres or greater disturbed area must pass through a sediment basin or other suitable sediment-trapping facility with equivalent or greater storage capacity. The director may require sediment basins or traps for smaller disturbed areas where deemed

necessary. The sediment basin requirement may also be waived if the director agrees that site conditions do not warrant its construction.

(6) Cut and fill slopes.

Cut and fill slopes must be designed and constructed in a manner which will minimize erosion. Consideration must be given to the length and steepness of the slope, the soil type, upslope drainage area, groundwater conditions and other applicable factors. Slopes which are found to be eroding excessively within one (1) year of construction must be provided with additional slope-stabilizing measures until the problem is corrected. The following guidelines are provided to aid site planners and plan reviewers in developing an adequate design.

a. Roughened soil surfaces are generally preferred to smooth surfaces on slopes.

b. Diversions should be constructed at the top of long, steep slopes which have significant drainage areas above the slope. Diversions or terraces may also be used to reduce slope length.

c. Concentrated stormwater should not be allowed to flow down cut or fill slopes unless contained within an adequate temporary or permanent channel, flume or slope drain structure.

d. Wherever a slope face crosses a water seepage plane which endangers the stability of the slope, adequate drainage or other protection should be provided.

(7) Stormwater management criteria for controlling off-site erosion.

Properties and waterways downstream from development sites shall be protected from erosion due to increases in the volume, velocity and peak flow rate of stormwater runoff and the following criteria shall apply.

a. Concentrated stormwater runoff leaving a development site must be discharged directly into a well-defined, natural or man-made, off-site receiving channel or pipe. If there is no well-defined, off-site receiving channel or pipe, one must be constructed to convey stormwater to the nearest adequate channel. Newly constructed channels and conduits carrying a flow of one thousand (1,000) or more cubic feet per second shall be designed for a one hundred- (100) year storm frequency and newly constructed channels and conduits carrying a flow of less than one thousand (1,000) cubic feet per second shall be designed for a ten- (10) year storm frequency.

An adequate channel shall be defined as a natural or man-made channel or pipe which is capable of conveying the runoff from a ten- (10) year storm without overtopping its banks or eroding after development of the site in question. A receiving channel may also be considered adequate at any point where the total contributing drainage area is at least one hundred (100) times greater than the drainage area of the development site in question or, where it can be shown that the peak rate of runoff from the site for a ten- (10) year storm will not be increased after development.

Runoff rate and channel adequacy must be verified with engineering calculations to the satisfaction of the director.

b. If an existing off-site receiving channel is not an adequate channel, the applicant must choose one of the following options:

1. Obtain permission from downstream property owners to improve the receiving channel to an adequate condition. Such improvements shall extend downstream until an adequate channel section is reached; or

2. Develop a site design that will not cause the predevelopment peak runoff rate from a ten- (10) year storm to increase. Such a design may be accomplished by enhancing the infiltration capability of the site or by providing on-site stormwater detention measures. The predevelopment and postdevelopment peak runoff rates must be verified by engineering calculations. Within the Four Mile Run Watershed postdevelopment peak run-off during a one hundred- (100) year frequency storm shall not increase the peak runoff of the Four Mile Run Flood Control Channel as required by the city's contract with the United States Army Corps of Engineers. Within the remainder of the city, postdevelopment peak runoff shall be designed so as not to increase the peak flow in any critical downstream channel or culvert during a ten- (10) year storm; or

3. Provide a combination of channel improvement, stormwater detention or other measures which are satisfactory to the director to prevent downstream channel erosion.

c. All channel improvements or modifications must comply with all applicable laws and regulations. Modifications to flowing streams should be made in accordance with Best Management Practices Handbook--Hydrologic Modifications, Virginia State Water Control Board Planning Bulletin 319, 1979.

d. If the applicant chooses an option which includes stormwater detention, he must provide the city with a plan for maintenance of the detention facilities. The plan shall set forth the maintenance requirements of the facility and the party responsible for performing the maintenance. The responsible party may be an individual, organization or the city, whichever has consented to carry out the maintenance. If the designated maintenance responsibility is with an individual or organization other than the city, a maintenance agreement should be executed between the responsible party and the city.

e. Increased volumes of unconcentrated sheet flows which will cause erosion or sedimentation on adjacent property must be diverted to a stable outlet or detention facility.

f. In applying these stormwater management criteria, individual lots in subdivision developments shall not be considered separate development projects, but rather the subdivision development, as a whole, shall be considered a single development project.

(8) Stabilization of waterways and outlets.

All on-site stormwater conveyance channels shall be designed and constructed to withstand the expected velocity of flow from a ten- (10) year frequency storm without erosion. Stabilization adequate to prevent erosion must also be provided at the outlets of all pipes and paved channels.

(9) Storm sewer inlet protection.

All storm sewer inlets which are made operable during construction shall be protected so that sediment-laden water will not enter the conveyance system without first being filtered or otherwise treated to remove sediment.

(10) Working in or crossing watercourses.

a. Construction vehicles should be kept out of watercourses to the extent possible. Where in-channel work is necessary, precautions must be taken to stabilize the work area during construction to minimize erosion. The channel (including bed and banks) must always be restabilized immediately after in-channel work is completed.

b. Where a live (wet) watercourse must be crossed by construction vehicles regularly during construction, a temporary stream crossing must be provided.

(11) Underground utility construction.

a. The construction of nonexempt underground utility lines shall be subject to the following criteria:

1. No more than one hundred (100) feet of trench are to be opened at one time.

2. Where consistent with safety and space considerations, excavated material is to be placed on the uphill side of trenches.

3. Trench dewatering devices shall discharge in a manner which will not adversely affect flowing streams, drainage systems or off-site property.

b. Nonexempt utility construction includes the installation, maintenance or repair of all utilities which disturb more than ten thousand (10,000) square feet except:

1. Individual service connections.

2. Telephone and electric lines.

3. Underground public utility lines under existing hard surfaced roads, streets or sidewalks, provided such land-disturbing activity is confined to the area which is hard-surfaced.

(12) Construction access routes.

Wherever construction vehicle access routes intersect paved public roads, provisions must be made to eliminate the transport of sediment (mud) by runoff or vehicle tracking onto the paved surface. Where sediment is transported onto a public road surface, the roads shall be cleaned thoroughly at the end of each day. Sediment shall be removed from roads by shoveling or sweeping and be transported to a sediment controlled disposal area. Street washing shall be allowed only after sediment is removed in this manner.

(13) Disposition of temporary measures.

All temporary erosion and sediment control measures shall be disposed of within thirty (30) days after final site stabilization is achieved or after the temporary measures are no longer needed, unless otherwise authorized by the director. Trapped sediment and other disturbed soil areas resulting from the disposition of temporary measures shall be permanently stabilized to prevent further erosion and sedimentation.

(14) Maintenance.

All temporary and permanent erosion and sediment control practices must be maintained and repaired as needed to assure continued performance of their intended function.

(c) The "Virginia Erosion and Sediment Control Handbook, Second Edition, 1980" shall be used by any applicant making a submittal under this chapter and by the director in his or her review and consideration of the adequacy of any erosion and sediment control plan submitted.

(d) This chapter and the "Virginia Erosion and Sediment Control Handbook, Second Edition, 1980" shall be an integral part of the city's erosion and sediment control program and shall comprise the city's "Erosion and Sediment Control Handbook."

Section 3. That Section 10A-8 of The Code of the City of Alexandria, Virginia, 1963, as amended, be and the same hereby is amended and reordained to read as follows:

Sec. 10A-8. Erosion and sediment control plans.

(a) Applications for approved erosion and sediment control plans shall be submitted to and filed with the director, on forms prepared by the city, prior to the time any work subject to this chapter is begun on land. Four (4) copies of an erosion and sediment control plan must accompany any such application, parts of which shall also be on forms prepared by the city. Upon receipt of an application and plans, the director shall consider the plan in light of the provisions of this chapter and promptly approve the plan, disapprove the plan or approve the plan with modifications, noting thereon any changes that will be required. The director shall promptly notify the applicant of his or her decision on a plan. Any approved plan shall be issued, dated, and bear the manual signature of the director of the department of transportation and environmental services or his or her deputy.

(b) An application shall show the following:

- (1) The name, address and telephone number of the applicant.
- (2) The name, address and telephone number of the owner of record.
- (3) The name, address and telephone number of the person preparing the plan.

(4) The location of the site, including lot number and tax map page number.

(5) The total land area, area being disturbed and proposed amount of pervious and impervious area.

(6) Soil types by AASHO classification (or other classifications used by soil engineers), if available.

(7) Method for collecting and depositing stormwater.

(8) Test boring and soil test results when

a. the site is in an area of the city known or suspected by the director to have soil problems or unstable soil;

b. any proposed slope on the site exceeds a grade of twenty percent (20%);

c. the presence of groundwater in substantial amounts is known or suspected by the director to be on the site; or

d. unstable soil is known or suspected by the director be on the site.

(9) Methods for control of contamination of land when the site is in an area found by the director to be contaminated by a toxic substance and hazardous to the public health, safety and welfare. Said methods shall comply and be in accordance with the "Administrative Procedures for Control of Contaminated Land, Alexandria, Virginia," dated October 20, 1976, that were promulgated by the city manager and adopted by the city council on November 23, 1976, by ordinance number 2145. These administrative procedures may be amended or revised from time to time by the city manager with the approval of the city council by motion.

(10) A general description of existing trees, shrubs, grass, weeds, vegetation, ground cover and other plant life.

(11) Any other pertinent information the director may require.

(c) An erosion and sediment control plan shall follow the format of map number 4, plate 6-4 of chapter 6 of the city's erosion and sediment control handbook. The plan shall also include appropriate title blocks, scales and a vicinity map.



Section 4. That Section 10A-9 of The Code of the City of Alexandria, Virginia, 1963, as amended, be and the same hereby is amended and reordained to read as follows:

Sec. 10A-9. Regulations and restrictions generally.

All erosion and sediment control practices shall be in accordance with the city's erosion and sediment control handbook.

Section 5. That Section 10A-19 of The Code of the City of Alexandria, Virginia, 1963, as amended, be and the same hereby is amended and reordained to read as follows:

Sec. 10A-19. Transition.

All buildings and structures for which a building permit shall have been duly and regularly issued by the Director of the department of building and mechanical inspections on or before December 31, 1975, which permit has not expired, may be completed without the necessity of complying with this chapter.

All buildings, structures, alterations to buildings or structures and changes of land characteristics for which a final site plan shall have been duly and regularly issued on or before December 31, 1975, and which site plan has not expired, may be completed without the necessity of complying with this chapter.

All subdivisions of land for which an approved final plat of subdivision has been duly and regularly issued and released on or before December 31, 1975, which approved plat has not expired and for which the guarantee for the required public improvement is in full force and effect may be completed without the necessity of complying with this chapter.

Any project for which a silt dams and erosion control bond is in full force and effect on December 31, 1975, may be completed without the necessity of complying with this chapter; provided, that the unfinished portions of any such project must comply with the provisions of this chapter any time that such control bond ceases to be in full force and effect.

Notwithstanding the foregoing provisions of this section, the provisions of this chapter shall apply to buildings, structures, changes in land characteristics, subdivision of land or projects after completion of such buildings, structures, alterations of buildings and structures, changes of land characteristics or subdivision of land or projects.

Section 6. That the title of and an informal memorandum explaining this ordinance shall be published in a newspaper of

general circulation published in the city not later than five days following its introduction together with a notice containing the time and place for a public hearing. The city clerk shall have the full text of this ordinance printed in sufficient numbers to supply copies to meet request. The city clerk shall note the date of introduction and first reading, the date of publication, the date of the public hearing, and the date of the second reading and final passage in the minutes of the meeting. This ordinance shall become effective the date of its final passage.

CHARLES E. BEATLEY, JR.  
Mayor

Final Passage: June 13, 1981