Topic: Erosion & Sedimentation Control

Resource Type:RegulationsState:ArkansasJurisdiction Type:Municipal

Municipality: City of Little Rock

Year (adopted, written, etc.): 2000

Community Type - applicable to: Urban; Suburban

Title: City of Little Rock Land Alterations

Regulations

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Abstract

The purpose of this ordinance is to prevent sedimentation and erosion from clearings within Little Rock, which has a number of hillside neighborhoods. The ordinance was developed and written by a citizens group and places limits on tree clearing and grading, requires a landscaping plan and that a qualified superintendent be on site during all land clearing activities. Additionally, the ordinance requires that all but the building permit be issued before approval of the grading permit and that construction is 'imminent.'

Resource

Ch. 29 ARTICLE VI. LAND ALTERATION REGULATIONS* Adopted 9-26-2000

Cross references: Buffers and screening, § 36-520 et seq.

DIVISION 1. GENERALLY

Sec. 29-166. Penalty.

Any person convicted of a violation of any of the provisions of this article shall be punished as provided in section 1-9.

(Ord. No. 18,361, § 2, 9-26-00)

Sec. 29-167. Findings.

^{*}Editor's note: Section 2 of Ord. No. 18,361, adopted Sept. 26, 2000, deleted Art. VI in its entirety and enacted similar provisions to read as herein set out. Former Art. IV derived from Ord. No. 15,243, adopted Feb. 17, 1987; Ord. No. 15,833, adopted April 3, 1990; Ord. No. 17,697, adopted March 17, 1998; and Ord. No. 18,246, adopted March 28, 2000.

The city has experienced development activity causing the displacement of large amounts of earth and tree cover. Significant problems resulting from such development include flooding, soil erosion and sedimentation, unstable slopes, and impaired quality of life. These problems are a concern because of their negative effects on the safety and general welfare of the community.

(Ord. No. 18,361, § 2, 9-26-00)

Sec. 29-168. Purpose.

The purposes of this article are to:

- (1) Prohibit the indiscriminate clearing of property.
- (2) Prevent excessive grading, clearing, filling, cutting or similar activities.
- (3) Substantially reduce flooding, erosion and sediment damage within the city.
- (4) To safeguard the safety and welfare of citizens.
- (5) Establish reasonable standards and procedures for development which prevent potential flooding, erosion and sediment damage.
- (6) Prevent the pollution of streams, ponds and other watercourses by sediment.
- (7) Minimize the danger of flood loss and property loss due to unstable slopes.
- (8) Preserve natural vegetation which enhances the quality of life of the community.
- (9) To conceal hillside scars.
- (10) To preserve the contours of the natural landscape and land forms.

(Ord. No. 18,361, § 2, 9-26-00)

Sec. 29-169. General requirements.

Persons engaged in land alteration activities regulated by this article shall take measures to protect neighboring public and private properties from damage by such activities. The requirements of this article, however, are not intended to prevent the reasonable use of properties as permitted by chapter 36 of this Code.

(Ord. No. 18,361, § 2, 9-26-00)

Sec. 29-170. Violation, enforcement and penalties.

- (a) Violations of any provisions of this article shall be punishable as provided in section 1-9 of this Code, except that the continuing violation provisions of section 1-9(c) shall not apply unless (1) an approved plan for correction of the violation(s) has not been implemented by the responsible party within the time specified in the plan, or (2) the responsible party fails to submit a required plan within the time specified.
- (b) The responsible party shall be liable for all fines levied or remedial action required under this article. Each required tree removed or improperly preserved or any other activity proscribed by this article shall be a separate violation. Each violation shall be considered a separate offense.
- (c) Any person who engages in land alteration activities regulated by this article without obtaining a grading permit, shall be required to restore the land, to the maximum extent practicable to its original condition.
- (d) When a violation of this article is determined to exist, the city official shall issue written notice of violation to the responsible party. The notice shall specify those sections of this article which are determined to be violated and shall include the time and conditions under which the violation(s) shall be corrected. If the responsible party has been issued other written orders within the previous twelve-month period, the notice may require the violation(s) to be corrected within twenty-four (24) hours. If, the city official determines the current season of the year is not conducive to sustaining life for trees, the time compliance with these provisions may be extended for not more than one hundred twenty (120) days.
- (e) The responsible party shall have a maximum of thirty (30) days from the date of the written notice to appeal to the planning commission as provided in section 29-195.
- (f) If the responsible party fails to comply with the written notice of violation the city official may issue a stop work order and citation, as provided in section 29-10 and revoke all permits including the building permit and certificate of occupancy. Additionally, when the city official determines that an emergency exists, a stop work order to immediately cease and desist may be issued.
- (g) The permit applicant shall have on the project site at all times an agent who is a competent superintendent capable of reading and thoroughly understanding the plans, specifications and requirements for areas of tree protection for the type of work being performed. The superintendent shall have full authority to issue orders or direction to employees working on site, without delay and to promptly supply such materials, labor, equipment, tools, and incidentals as may be required to complete the work in a proper manner. If no superintendent is on site, the city official may issue the notice of violation and stop work order to the person conducting the violation.
- (h) Removal of trees with a diameter of six (6) inches or greater, that have been removed without a grading permit or trees required in an approved plan that have been removed or which die shall be considered a violation.

(i) If a land alteration activity causes damage to off-site property or water, the developer shall require mitigation by the responsible parties.

(Ord. No. 18,361, § 2, 9-26-00)

Sec. 29-171. Conflicts.

Where provisions of this article conflict with any other ordinance, regulation, or resolution of the city, the most stringent provision shall be enforced. The provisions of this article are considered minimum requirements.

(Ord. No. 18,361, § 2, 9-26-00)

Secs. 29-172--29-185. Reserved.

Sec. 29-186. Grading permit required.

- (a) Any person proposing to engage in clearing, filling, cutting, quarrying, construction or similar activities regulated by this article shall apply to the department of public works for a grading permit as specified in this article. A landscape permit as required in chapter 15 shall be obtained from the city before constructing or expanding a vehicular use area. Additionally, a permit is required when expanding or rehabilitating a building and landscaping is required under this article. Except as otherwise provided in chapter 15, the responsible party shall not allow the removal of more than seven (7) trees within any given twelve (12) month period without first obtaining a grading permit. The city official may exempt the need for the permit on a limited case-by-case basis. No land shall be altered or cleared to the extent regulated in this article unless approved by a permit.
- (b) No land alteration shall be permitted until all necessary city approval of all plans and permits, except building permit, have been issued and construction is imminent. Clearing and grading for streets and drainage improvements may be done on residential subdivisions provided the preliminary plat has been approved. In those cases where filling or cutting in areas with no trees is to be done, the area is to be graded suitable for mowing and shall be revegetated. If building construction has not commenced and diligently pursued within eight (8) months of plans approval, then all landscaping and tree requirements in the buffers shall be installed, unless the city official determines that the existing buffers on the site meet the landscape planting requirements of chapter 15 of this Code.
- (c) A grading permit is required for land alteration activities specified in this section. However, all construction work shall include appropriate drainage and erosion control measures to protect neighboring properties. All land alteration in properties within the designated floodplain requires a grading permit without exception.
- (d) Grading permits, which may be obtained as part of a building permit, shall be required for any of the following activities:

- (1) A top of hill or hillside cut or fills greater than ten (10) feet vertical.
- (2) Any construction activity where the total volume of cut or fill is equal to or greater than one thousand (1,000) cubic yards.
- (3) Clearing or cutting of trees on property in the City of Little Rock except for (i) those districts zoned agriculture and forestry (AF) (ii) mining (M), and (iii) properties fronting on a collector street of two (2) acres or less zoned single or two family districts R1, R2, R3, R4, and R7A, or residentially zoned properties fronting on a residential street of five (5) acres or less.
- (e) Prior to issuance of a grading permit, a grading and drainage plan shall be submitted to and approved by the city for activities specified in paragraphs (d)(1), (2) and (3) of this section.
- (f) When the application is for a planned zoning district, conditional use permit, site plan review, subdivision, or multiple building site approval a sketch grading and drainage plan shall be required in the application to the planning commission only if any of the activities specified in subsection (d) of this section are involved.
- (g) Utility organizations may obtain a one-time approval from the city for all routine tree trimming and installation, maintenance, replacement and repair of fence and sign posts, telephone poles and other kinds of posts or poles and overhead or underground electric, water, sewer, natural gas, telephone or cable facilities. The approval will include a utility organization and its contractors, agents or assigns and will be permanent in nature as long as the original approved procedures are followed. However, large-scale utility projects involving clearing of areas over twenty-five (25) feet in width shall not be authorized by one-time approval of all projects. In such cases, a separate grading permit must be obtained for each project.
- (h) One-time approval may be obtained by public or private entities for the stockpiling of construction spoil material at particular locations for a limited time period, not to exceed six (6) months. Grading and replanting of grassed areas is required upon removal of stockpile.

(Ord. No. 18,361, § 2, 9-26-00)

Sec. 29-187. Exemptions.

A grading permit shall not be required for:

(1) Construction on properties of two (2) acres or less fronting on a collector street and zoned single-family districts R1, R2, R3, R4 and R7(A) and on property zoned agriculture and forestry (AF), and residentially zoned property fronting on a residential street of five (5) acres or less.

- (2) Emergency work or repairs to protect health, safety and welfare of the public. Removal of damaged or diseased trees will be permitted by staff upon certification by proper authority.
- (3) Mining and mining operations because these activities are covered by the Arkansas Open Cut Land Reclamation Act [A.C.A. section 15-57-301 as amended], which is regulated by the state department of environmental quality.

(Ord. No. 18,361, § 2, 9-26-00)

Sec. 29-188. Contents of grading and drainage plans.

- (a) The sketch grading and drainage plan shall identify the following:
- (1) Acreage of the proposed project.
- (2) Land areas to be disturbed.
- (3) Stages of grading showing the limits of sections to be graded and indicating the approximate order of development.
- (4) The height and slope of cuts and fills. Cross sections shall be required every fifty (50) feet on property where the depth of excavation or fill exceeds ten (10) feet, showing original and final grades and will include visual aids to show how the final development, including planting, and landscaping will look.
- (5) Provisions for collecting and discharging surface water.
- (6) Erosion and sediment measures, including structural and vegetative measures.
- (7) Seal and signature of a registered engineer, architect, or landscape architect, qualified under state regulations to certify that the sketch grading and drainage plan complies with this article. However, plans for areas less than two (2) acres fronting on a collector street, or residentially zoned areas less than (5) five acres fronting on a residential street, where cuts or fills are not greater than ten (10) feet in height or where only tree clearing activities are to be undertaken, may be prepared by a contractor or the property owner.
- (b) In addition to the requirements for a sketch grading and drainage plan, a final grading and drainage plan shall include the following information prior to issuance of any required permits:
- (1) Seal of a registered engineer, architect or landscape architect qualified under state regulations to certify that the grading and drainage plan complies with this article.
- (2) A vicinity drawing showing location of property lines, location and names of all existing or platted streets or other public ways within or immediately adjacent to the tract.

- (3) Location of all known existing sewers, water mains, culverts and underground utilities within the tract and immediately adjacent thereto; location of existing permanent buildings on or immediately adjacent to the site if right of entry can be obtained to locate same.
- (4) Identification of rights-of-way or easements affecting the property.
- (5) Soil loss calculations as estimated by the universal soil loss equation. Allowable soil loss shall not exceed five (5) tons per acre per year. Examples of soil loss calculations are contained in the city's stormwater management and drainage manual.
- (6) A plan of the site at a minimum scale of one (1) inch equals one hundred (100) feet.
- (7) Such other information required by city official, including but not limited to:
- a. Address and telephone number of owner, permit applicant and the designated agent responsible for maintenance of erosion and sediment control measures.
- b. The approximate location and width of existing and proposed streets.
- c. The locations and dimensions of all proposed or existing lots.
- d. The locations and dimensions of all parcels of land proposed to be set aside for parks, playgrounds, natural condition perimeters, public use, or for the use of property owners in proposed development.
- e. Existing and proposed topography at a maximum of five-foot contour intervals.
- f. An approximate timing schedule, indicating the anticipated starting and completion dates of the development; a timing schedule for the sequence of grading and application of erosion and sediment control measures.
- g. Acreage of the proposed project.
- h. Identification of unusual material or soils in land areas to be disturbed. If any surface indications of unusual materials or soils that would cause street or lot instability, such as nonvertical tree growth, old slides, seepage, or depressions in the soil are visible before grading, they should be noted and accompanied by the engineer's, architect's, landscape architect's, or contractor's recommendation for correcting such problem areas.
- i. Identification of suitable material to be used for fills shall be accomplished before actual filling begins. If there are any surface indications that local material is not suitable for fills, those areas to be filled with outside material should be identified and the type and source of the fill noted.
- j. Specification of measures to control runoff, erosion and sedimentation during the process of construction, noting those areas where control of runoff will be required during

construction and indicating what will be used, such as straw bales, sediment basins, silt dams, brush check dams, lateral hillside ditches, catch basins, etc.

- k. Measures to protect neighboring built-up areas and city property during process of construction, noting work to be performed, such as cleaning existing ditches, storm culverts and catch basins or raising existing curbs in neighboring areas.
- l. Provisions to stabilize soils and slopes after completion of streets, sewers and other improvements, noting on the grading plan when and where ground cover will be planted, also noting any other means to be used such as placement of stone embankments and riprap or construction of retaining walls.
- (8) The grading and drainage plan shall include areas of tree protection, erosion and sediment control provisions meeting standards established by the city in the stormwater management and drainage manual.

(Ord. No. 18,361, § 2, 9-26-00)

Sec. 29-189. Issuance procedure.

- (a) The following procedure shall be implemented for the issuance of a grading permit:
- (1) The city official shall, in writing approve, disapprove or recommend modification of the grading and drainage plan within ten (10) days after the date of submittal unless otherwise approved by the planning commission.
- (2) Applications for which planning commission approval is required shall be placed on the next available planning commission agenda following city staff review. Sketch grading and drainage plans shall be reviewed by city and a report prepared by the time of the applicable subdivision subcommittee meeting, if possible, but not later than the applicable planning commission meeting.
- (3) Except for residential subdivision work, the approval of a sketch grading and drainage plan shall not eliminate the need to submit and have approved a final grading and drainage plan, prior to issuance of a building permit or the initiation of work.
- (4) For residential subdivision work, only a sketch grading and drainage plan shall be required, and clearing and grading work may proceed upon approval of the preliminary plat. The sketch plan for residential subdivisions shall indicate how runoff, erosion, sedimentation will be controlled.
- (b) Upon approval of the final plan, the city shall issue a grading permit. A superintendent capable of understanding the plans and with authority to issue orders to employees performing the land alteration shall properly supervise the land alteration work.

- (c) The city official may issue a stop work order if, upon inspection, it is determined that the work is not progressing in accordance with the approved plan.
- (d) Groups of trees and individual trees that are not to be removed and required undisturbed buffer areas shall be protected during construction by protective fencing and shall not be used for material storage or for any other purpose. The fencing shall be placed and maintained by the owner until all exterior construction except landscaping has been completed. Individual trees to be preserved outside the protected area shall be fenced at the critical root zone and shall be flagged with bright orange vinyl tape wrapped around the main trunk at a height of four (4) feet or more such that the tape is clearly visible to workers on foot or operating equipment.
- (e) The city official may allow minor modifications of the plan to alleviate particular problems during the process of construction. In reviewing request for modifications, the city official may require from the applicant's engineer, architect, or landscape architect appropriate reports and data sufficient to make a decision on the request.
- (f) Major changes to plans approved by the planning commission either in sketch or final form shall only be permitted by the planning commission. Examples of major changes are those that substantially increase the height of cuts, the area of clearing or grading, or impact on neighboring properties. More than twenty (20) percent increase in height, area or impact will normally be considered a major change. Examples of increased impact include reductions in buffer area, increased runoff onto adjacent properties, and increased site area that is visible from adjacent properties or public streets.

(Ord. No. 18,361, § 2, 9-26-00)

Sec. 29-190. Grading and drainage plan requirements.

Preparation of grading and drainage plans shall follow the stormwater management and drainage manual and shall be designed on the basis of the following considerations:

- (1) A maximum of thirty (30) vertical feet of fill or excavation (three (3) ten-foot vertical terraces, or two (2) fifteen-foot vertical terraces) is permitted, however additional development areas may be constructed a minimum of one hundred fifty (150) feet in width and at a slope of no more than eight (8) percent. The maximum of thirty (30) feet of fill or excavation may again be utilized.
- a. The depth of fill or excavation shall be measured from the finish grade elevation to the original ground line elevation.
- b. No more than two hundred (200) feet of terrace can be in a straight line and a minimum of a ten (10) feet curved section, jog, or offset is required for each additional two hundred (200) feet of terrace.

- c. For excavations or fills constructed with slopes flatter than 3:1 (three horizontal to one vertical), terraces are not required nor is there a limit on the height of cut or fill. Planting requirements on these 3:1 slopes shall be the same as required for terraces and shall be spaced uniformly over the slope.
- d. Cuts or fills shall be limited to ten (10) feet in height or to fifteen (15) feet if architectural stone is included to protect the vertical face. A series of smaller cuts or fills with terraces, preserving portions of natural vegetation and providing areas for planting, shall be used in situations where more than ten (10) feet of cut or fill is needed.
- e. Terracing width shall be at a ratio of at least one (1) foot of horizontal terrace for every one (1) foot of vertical height, up to a maximum of ten (10) feet. Terraces shall be landscaped with dense evergreen plantings sufficient to screen the cut or fill slope.
- f. If the slope of the cut or fill is faced with an architectural stone wall, the terrace plantings shall be a minimum of two (2) rows of trees four (4) feet between the rows, staggered not more than twenty (20) feet on centers.
- g. Shrubs and ground cover shall be required in accordance with chapter 15 of this Code.
- (2) Development shall be planned to fit topography, soils, geology, hydrology, and other existing site conditions.
- (3) Provisions shall be made for safety against unstable slopes or slopes subject to erosion and deterioration.
- (4) Grading shall complement natural landforms.
- (5) After grading, all paving, seeding, sodding, or mulching shall be performed in accordance with a reasonable schedule approved by the city official.
- (6) Open areas not planned for immediate use shall be seeded or sodded. Soil which is exposed for more than twenty-one (21) days with no construction activity shall be seeded, mulched or revegetated in accordance with this Code.
- (7) Areas not well suited to development, as evidenced by existing competent soils, geology, hydrology investigations and reports, should be allocated to open space and recreational uses.
- (8) The potential for soil loss shall be minimized by retaining natural vegetation wherever possible.
- (9) Appropriate provisions such as those in the stormwater management and drainage manual shall be used to accommodate stormwater runoff and soil loss occasioned by changed soil and surface conditions during and after development, including the use of vegetation and limitations on soil exposure. If staff determines upon visual inspection that

excessive silt from the construction has migrated offsite, additional measures to reduce erosion may be required.

- (10) Permanent improvements such as streets, storm sewers, curb and gutters, and other features for control of storm runoff shall be scheduled as soon as economically and physically feasible before removing vegetation cover from the area, so that large areas are not left bare and exposed for long periods of time beyond the capacity of temporary control measures.
- (11) A temporary or permanent sediment basin, debris basin, desilting basin or silt trap shall be installed and maintained to substantially reduce sediment from water runoff. The volume of the sediment basin shall be three thousand (3,000) cubic feet per acre for property with average slope greater than five (5) percent, or fifteen hundred (1,500) cubic feet per acre for property with an average slope less than five (5) percent. A properly sized sediment basin is required for each separate drainage area within the property being developed.
- (12) Construction access shall be limited to locations as approved by the city official. Construction access points shall be graveled for a minimum length of twenty (20) percent of the lot depth or fifty (50) feet, whichever is greater, up to a maximum of one hundred (100) feet to prevent tracking onto the city street.
- (13) Appropriate provisions shall be made to prevent excessive particulate matter from becoming airborne.
- (14) A perimeter buffer strip shall be temporarily maintained around disturbed areas for erosion control purposes and shall be kept undisturbed except for reasonable access for maintenance. The width of the strip shall be six (6) percent of the lot width and depth. The minimum width shall be twenty-five (25) feet and the maximum shall be forty (40) feet. In no event shall these temporary strips be less than the width of the permanent buffers required for the development.
- (15) A minimum strip twenty-five (25) feet wide, undisturbed except for reasonable access, shall be provided along each side of streams having a ten-year storm of greater than one hundred fifty (150) cubic feet per second. The twenty-five (25) foot strip shall be measured from the top of the bank. An exception to this requirement is allowed where the only work being done on the site is public street construction.
- (16) Care shall be exercised to minimize the risk of damage from or to pedestrian and vehicular traffic in the vicinity of a cut or fill by placement of handrails, guardrails, fencing or landscaping.
- (17) Additional landscape treatment shall be provided in accordance with chapter 15 of this Code.

(Ord. No. 18,361, § 2, 9-26-00)

Sec. 29-191. Unified plan and permit.

One plan may be submitted incorporating all provisions for compliance with the applicable city zoning, landscaping, drainage detention, grading, clearing, filling, cutting, quarrying, and construction requirements.

(Ord. No. 18,361, § 2, 9-26-00)

Sec. 29-192. Reserved.

Sec. 29-193. Fees.

A fee for each grading permit shall be paid to the city as follows:

TABLE INSET:

Total Project Area Fee

Less than 1/2 acre ... \$ 50.00

1/2 to 1 acre ... 100.00

Greater than 1 acre, for first acre ... 100.00

For each additional acre, up to a maximum of 10 acres, not to exceed \$550.00 . . . 50.00

(Ord. No. 18,361, § 2, 9-26-00)

Sec. 29-194. Inspection and compliance.

- (a) The department designated by the city manager shall be responsible for determining whether construction is proceeding according to the approved grading and drainage plan.
- (b) City officials shall perform inspections of the development site. In applying for a grading permit, the applicant shall be deemed to have consented to such inspections.
- (c) The city official, through such periodic inspections, shall ensure that erosion control measures are implemented within one (1) week after cessation or completion of all or portions of authorized work. The city official may where necessary order remedial work or issue a stop work order in accordance with this article.

(Ord. No. 18,361, § 2, 9-26-00) Bottom of Form

Sec. 29-195. Appeals.

Final decisions of the city official regarding grading and drainage plans shall be subject to review by the planning commission provided an appeal is filed by the applicant within thirty (30) days after the date of the final written decision of the city official. Certified mail notice of the appeal shall be given by the applicant to adjacent property owners, including those across a street or alley from the subject property, at least ten (10) days prior to the planning commission meeting at which the appeal is to be considered.

(Ord. No. 18,361, § 2, 9-26-00)