

STORMWATER MANAGEMENT/DRAINAGE ORDINANCE

AN ORDINANCE ADOPTING **REGULATIONS** DESIGNED TO LESSEN AND AVOID HAZARDS TO PERSONS AND PROPERTY CAUSED BY OBSTRUCTION TO DRAINAGE, AND TO OTHERWISE PROMOTE THE PUBLIC HEALTH, SAFETY AND GENERAL WELFARE.

ARTICLE 1

1.1 Title - These **regulations** shall hereafter be known, cited and referred to as the “Stormwater Management/Drainage **Regulations**” of the City of Jonesboro, Arkansas.

1.2. Authority- These **regulations** are adopted pursuant to the power and authority vested through the applicable laws and statutes of the State of Arkansas.

1.3 Applicability- Any person, firm, corporation or business proposing to construct building or develop land within the **Jonesboro Planning jurisdiction** shall submit drainage plans to the City Engineer for acceptance of a Stormwater Management/Drainage plan before a grading permit is issued

Comment [MAD1]: Does the city currently enforce it's planning jurisdiction outside of the city limits? If not, can the city just begin enforcing it?

1.4 Exemptions- All construction or remodeling activities shall have a Stormwater Management/Drainage plan accepted before a grading permit is issued except for the following:

- One new or existing single-family structure.
- One new or existing duplex family structure.
- One existing commercial or industrial structure where additional structural and/or site improvements are less than 500 square feet.

1.5 Purpose- In order to promote the public health, safety and general welfare of the citizens of Jonesboro, the provisions of these regulation, as amended from time to time, are intended to: (1) **reduce** property damage and human suffering, and (2) to **minimize** the hazards of personal injury and loss of life due to flooding, to be accomplished through the acceptance of a Stormwater Management /Drainage plan pursuant to the provisions of these **regulations**, which: (a) define and establish stormwater management practices and use restrictions, and (b) establish **guidelines** for handling increases in volume and peak discharges of runoff.

1.6 Definitions – For the purpose of this Ordinance, certain terms and words shall be used, interpreted and defined as set forth in this section. Unless the context clearly indicates to the contrary, words used in the present tense include the future tense; words used in the singular shall include the plural, and vice-versa; and words, “these **regulations**,” mean “this Ordinance;” the work, “person,” includes corporation, partnership, and unincorporated association of persons; and the word, “shall,” is always mandatory.

- A. Base Flood – The flood that has a 1 percent chance of being equaled or exceeded in any given year, i.e., the 100-Year Flood.

- B. Bond – The form of security for the completion or performance of the Stormwater Management/Drainage plan or the maintenance of drainage improvements shall be a performance bond, or escrow deposit in an amount and form satisfactory to the City Engineer and approved by the City Attorney.
- C. Building – Any structure built for the support, shelter or enclosures of persons, animals, chattels, or movable property of any kind.
- D. Channel – Course of perceptible extent which periodically or continuously contains moving water, or which forms a connecting link between two bodies of water, and which has a definite bed and banks.
- E. Conduit – Any open or closed device for conveying flowing water.
- F. Control – The hydraulic characteristic which determines the stage-discharge relationship in a conduit. The control is usually critical depth, tail water depth, or uniform depth.
- G. Detention Basins – Any man-made area which serves as means of controlling and temporarily storing stormwater runoff. The facility normally drains completely between spaced runoff events, e.g., parking lots, rooftops, athletic fields, dry wells, oversized storm drain pipes.
- H. Detention - The temporary detaining or storage of floodwater in reservoirs, on parking lots, on rooftops and other areas under predetermined and controlled conditions accompanied by controlled release of the stored water.
- I. Development – any change of land use or improvements on any parcel of land.
- J. Differential Runoff – The volume and rate of flow of stormwater runoff discharged from a parcel of land or drainage area which is or will be greater than the volume and rate which pertained prior to propose development or redevelopment existed.
- K. Approval Letter – a certificate of compliance issued by the City Engineer based upon the Stormwater Management/Drainage plan as prepared and certified by the developers’ engineer. The final Stormwater Management/Drainage plan can accompany the building permit application or be submitted with the proposed civil engineering site grading and erosion plans.
- L. Drainage Easement – Authorization by a property owner for use by another party or parties for all or any portion of his/her land for drainage

purposes. Easements will be maintained by the landowners. Easements shall be dedicated to the City. The City Engineer will review the plan and easement for compliance. Each developer or owner has a responsibility and duty before and after construction to properly operate and maintain any on-site stormwater runoff control facility

- M. Engineer of Record – A professional engineer registered in Arkansas.
- N. Floodplain – a land area adjoining a river, stream, watercourse, or lake which is likely to be flooded.
- O. Floodway – The channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without a cumulative increase of the water surface elevation more than a designated height.
- P. Freeboard – A factor of safety expressed as the difference in elevation between the top of the detention basin dam, levees, culvert entrances and other hydraulic structures, and the design flow elevation.
- ~~Q. Frequency – The reciprocal of the exceedance probability.~~
- R. Grading Permit – A permit to be issued by the City Engineer after review for compliance of drainage plans and the Stormwater Prevention Pollution Plan showing the proposed final contours of a new or redeveloped platted area of land. No land disturbance activities shall commence without a grading permit. A grading permit shall not be considered as a building permit.
- S. Habitable Dwelling Unit – A dwelling unit intended and suitable for human habitation.
- T. In-Stream Detention – Temporary storage of runoff within a principal drainage system, i.e., in the receiving streams or conduits. In-stream detention may be used when deemed appropriate by the Engineer of Record and the City Engineer.
- U. NRCS (SCS) Method – A methodology developed by the Natural Resources Conservation Service (formerly the Soil Conservation Service) for obtaining a design hydrograph to simulate the discharge from a stream over a specific time period.
- V. Off-Stream Detention – Temporary storage accomplished off-line, i.e., not within a principal drainage system.

- W. On-site Detention – Temporary storage of runoff on the same land or development site where the runoff is generated.
- X. Peak Flow – The peak rate of flow of water at a given point in a channel, watercourse or conduit.
- Y. 100-Year Storm – Rainstorms of a specified duration having a 1 percent chance of occurrence in a given year.
- Z. Permittee- A person, partnership or corporation or any other legal entity to whom a permit is granted.
- AA. Plat – A legally recorded plat of a parcel of land subdivided into lots with streets, alleys, easements, and other land lines drawn to scale.
- BB. Project- Any development involving the construction, reconstruction or improvement of structures and/or grounds.
- CC. Rational Method – An empirical formula for calculating peak rates of runoff resulting from rainfall.
- DD. Retention Facility – Any type of detention facility not provided with a positive outlet.
- EE. Retention Pond – A stormwater detention facility which maintains a fixed minimum water elevation between runoff events except for the lowering resulting from losses of water to infiltration or evaporation.
- FF. Stormwater Drainage Design Manual and Floodplain Compliance **Guidelines** – The set of drainage policies, analysis methods, design charts, stormwater runoff methods, and design standards used by the City as the official design **guidelines** for drainage improvements consistent with the Ordinance. Any material modifications will be made by the City Engineer consistent with the stated policies and intent of the Ordinance, subject to the approval of the modification by the Stormwater Drainage Committee.
- GG. Stormwater Runoff – Water that results from precipitation which is not absorbed by the soil, evaporated into the atmosphere or entrapped by ground surface depressions and vegetation, which flows over the ground surface.
- HH. Structure – Any object constructed above or below ground. Pipes, manholes and certain other utility structures which exist underground may be excluded from the definition.

- II. Swale- A ditch or depression that is cut into the soil that allows the flow of water to pass.
- JJ. Time of Concentration – The estimated time in minutes required for runoff to flow from the most remote point of the drainage area to the point at which the flow is to be determined.
- KK. Tributary Area – All of the area that contributes stormwater runoff to a given point.
- LL. Uniform Channel – A channel with a constant cross section and roughness.
- MM. Wet Bottom Basin – A detention basin intended to have a permanent pool.
- NN. Watercourse – Any surface stream, creek, brook, branch, depression, reservoir, lake, pond or drainageway in or into which stormwater runoff flows.
- OO. Owner or Developer – A person or legal entity that improves unimproved land or rehabilitates or adds more than 500 square feet of improvements to an existing improvement on previously improved land.

ARTICLE 2
STORMWATER MANAGEMENT/DRAINAGE SYSTEM

2.1 General – This article establishes the stormwater runoff management system of the City of Jonesboro management controls and management practices. These regulations shall apply.

2.2 The Drainage System – conveys or collects stormwater runoff.

2.3 Management Controls – Management controls are regulations applicable to the systems under the provisions of this Ordinance. Such controls shall limit any activity which adversely effect hydraulic function of open channels, drainage swales, detention facilities, or enclosed stormwater conveyance systems. The City of Jonesboro Stormwater Drainage Design Manual and Floodplain Compliance Guidelines shall be the official document used for designing stormwater management controls and drainage systems.

2.4 Management Practices – The following practices may be utilized:

- A. Storage – Runoff may be stored in temporary or permanent detention basins, or through rooftop, parking lot ponding, or percolation storage, or by other means in accordance with the design criteria and performance standards set forth in these regulations.

- B. Open Channels- Maximum feasible use shall be made of existing drainageways, open channels and drainage swales that are designed and coordinated with the design of building lots and streets in accordance with the design criteria and performance standards set forth in the Drainage Manual.
- C. Curbs – Streets, curbs and gutters shall be a part of the stormwater runoff management systems. To the maximum extent possible, drainage systems, street layout and grades, lotting patterns and the location of curbs, inlets and site drainage and overflow swales shall be concurrently designed in accordance with design criteria and performance standards set forth in the Drainage Manual.
- D. Enclosed Conveyance Systems – Enclosed conveyance systems consisting of inlets, conduits, and manholes may be used to convey stormwater runoff. Where used, such systems must be designed and performance set forth in the Drainage Manual.
- E. Other- The stormwater runoff management practices enumerated herein shall not constitute an exclusive listing of available management practices. Other generally accepted practices and methods may be accepted by the City Engineer, if the purposes, design criteria and minimum performance standards of these regulations are complied with

2. 5 Public and Private Responsibilities Under the Stormwater Management System

A. Public Responsibilities:

- 1. Administration – Administration of these regulations shall be the responsibility of the City Engineer, who shall determine compliance or non-compliance of stormwater management plans as provided herein.
- 2. Operation and Maintenance of Publicly Owned Facilities – The City Public Works Department shall be responsible after construction for the operation and maintenance of all drainage structures and improved courses which are part of the stormwater runoff management system under public ownership and which are not constructed and maintained by or under the jurisdiction of any State or Federal agency.

Comment [MAD2]: Does this mean systems inside dedicated Right-of-Way only?
Easements are not included in this.

B. Private Responsibilities:

- 1. Each developer of land within the City has responsibility to provide on the developer’s property all accepted stormwater runoff management facilities to ensure the adequate drainage and control of stormwater on the developer’s property both during and after

construction of such facilities. Appropriate easements and maintenance agreements shall be submitted to the City Engineer by the landowner that requires the landowner to maintain the easements.

Comment [MAD3]: Does this put the sole responsibility of ditch maintenance in the hands of the property owner?

2. Each developer or owner has a responsibility and duty before and after construction to properly operate and maintain any on-site stormwater runoff control facility. Such responsibility is to be transmitted to subsequent owners through appropriate covenants. Appropriate easements and maintenance agreements shall be submitted to the City Engineer by the landowner that requires the landowner and subsequent owners to maintain the easements and facilities.

Comment [MAD4]: Are these words binding?

Comment [MAD5]: Does this put the sole responsibility of ditch maintenance in the hands of the property owner?

ARTICLE 3

PROCEDURE FOR SUBMISSION, REVIEW AND ACCEPTANCE OF STORMWATER MANAGEMENT/DRAINAGE PLANS

3.1 General – The Stormwater Management/Drainage plan shall be prepared by the Engineer of Record, who is a professional engineer of the State of Arkansas. No grading or building permits shall be issued until and unless the Stormwater Management/Drainage plan has been reviewed by the City Engineer and a letter of compliance has been issued.

Comment [MAD6]: Approval Letter

~~**3.2 Pre-Preliminary Drainage Plan Review** – A pre-preliminary drainage plan review with the Engineering staff is suggested before preliminary platting for the purpose of overall general drainage concept review.~~

3.3 Review of Preliminary Stormwater and Drainage Plan – A preliminary stormwater and drainage plan, and accompanying information shall be submitted at the time of preliminary plat submittal. If needed, a review meeting will be scheduled by the City Engineer with representatives of the developer, including the Engineer of Record, to review the overall concepts included in the preliminary stormwater and drainage plan. The purpose of this review shall be to jointly agree upon an overall stormwater management concept for the proposed development and to review criteria and design parameters which shall apply to final design of this project.

3.4. Final Stormwater Management/Drainage Plan – Following the preliminary Stormwater Management/Drainage plan review, the final Stormwater Management/Drainage plan shall be prepared for each phase as developed. The final Stormwater Management/Drainage plan shall coincide and be combined with the erosion control plan. The final plan shall constitute a refinement of the concepts from the preliminary stormwater and drainage plan with preparation and submittal of detailed information as required in the Drainage Manual. This plan shall be submitted at the time construction drawings are submitted.

3.5. Review and Acceptance of Final Stormwater Management/Drainage Plans - If it is determined that the proposed development will not control stormwater runoff in accordance

with these regulations, the City Engineer shall not accept the final Stormwater Management/Drainage plan.

The application and data shall be returned to the Permittee for modification and resubmission.

(Note: Time frames for stormwater management and drainage plans shall coincide with time periods applicable in existing subdivision regulations.)

ARTICLE 4
DESIGN CRITERIA AND PERFORMANCE STANDARDS

4.1 Design Criteria – The City of Jonesboro’s Stormwater Drainage Design Manual and Floodplain Compliance Guidelines shall be the accepted design document. Unless otherwise provided, the following rules shall govern the design and improvements with respect to managing stormwater runoff:

- A. Method of Determining Stormwater Runoff – Developments where the upstream drainage area contributing runoff is less than 100 acres should be designed using the SCS, Type II 24-hour distribution, TR-55 Hydrograph Method for calculating runoff. Developments where the area contributing runoff is greater than 100 acres shall use the City of Jonesboro basin analysis for calculating runoff. If not available the FEMA Data shall be used for calculating runoff. If neither the basin analysis nor the FEMA Data is available, the SCS TR-55 Hydrograph Method for calculating runoff shall be used.

Comment [MAD7]: What is this? Where is this?

All such development proposals shall be prepared by the Engineer of Record.

- B. Development Design – Streets, lot depths, parks and other public grounds shall be located and laid out in such a manner as to minimize the velocity of overland flow, allow maximum opportunity for infiltration of stormwater into the ground, and to preserve and utilize existing and planned streams, channels, extension basins, and include wherever possible, streams and floodplains within parks and other public grounds.

Comment [MAD8]: In some cases you would want to improve & not preserve.

- C. Enclosed Systems and Open Channels – Enclosed systems and open channels shall be designed using the City of Jonesboro’s Stormwater Drainage Design Manual and Floodplain Compliance Guidelines.

- D. Evaluation of Downstream Flooding – The Engineer of Record should evaluate whether the proposed plan will cause or increase downstream flooding conditions. This evaluation should be made on the basis of existing downstream development and an analysis of stormwater runoff

Comment [MAD9]: How is this defined?

Comment [MAD10]: Are the new flood maps based on this condition or are they based on being fully developed?

with and without the proposed development. When it is determined that the proposed development will cause or increase downstream flooding flowing conditions, provisions to minimize such flooding conditions should be included in the design of storm management improvements. Such provisions may include downstream improvements and/or detention of stormwater runoff and its regulated discharge to the downstream storm drainage system.

Comment [MAD11]: Who makes this determination?

What is the definition of flooding conditions?

Comment [MAD12]: Hasn't the drainage committee prioritized or categorized types of flooding?

How do you apply that list to this statement?

1. The Engineer of record shall design the drainage improvements to accomplish a no increase in stormwater runoff city wide.

Comment [MAD13]: How does this work with in-lieu contribution?

2. Known problematic areas and/or drainage hot spots downstream shall be included in the evaluation.

Comment [MAD14]: Is this information published? How far downstream/upstream do you look?

E. Detention – Development also shall include detention of stormwater runoff in order to minimize downstream flooding conditions. The following design criteria shall govern the design of detention facilities:

Comment [MAD15]: ?

1. Release Rate – The release rate from any detention facility should approximate that of the site prior to the proposed development for the 2-year through 10-year storms, with emergency overflow capable of handling at least the 100-year discharge except where waived or altered by the City Engineer. Detention systems must be constructed during the first phase of major developments to eliminate damage to adjacent properties during construction. In this regard, the detention systems shall be designed to function as sediment traps and cleaned out to proper volumes before completion. If siltation has occurred, detention systems must be restored to their design dimensions after construction is complete and certified as part of the as-built submittal.

2. Freeboard – Detention storage areas shall have adequate capacity to contain the storage volume of tributary stormwater runoff with at least 6 inches of freeboard above the water surface of flow and the emergency spillway in a 10-year storm.

3. Outlet Control Works

(a.) Outlet works shall not include any mechanical components or devices and shall function without requiring attendance or control during operation.

(b.) Size and hydraulic characteristics shall be such that all water and detention storage is released to the downstream stormwater conveyance systems within 24 hours after the end of the design rainfall. Normal time for discharge ranges from 3 to 24 hours.

4. Spillway – Emergency spillways shall be provided to permit the safe passage of runoff generated from a 100-year storm or greater, if appropriate because of downstream high hazard, such as loss of life or damage to property.

5. Design Data Submittal – In addition to complete plans, all design data shall be submitted as required in the detention design data submittal section of the Drainage Manual.

6. Detention Methods – Depending upon the detention alternative(s) selected by the Engineer of Record, the design criteria for detention shall follow those given in the Drainage Manual.

F. Alternatives to On-site Detention

1. Alternative Methods – Where on-site detention is deemed inappropriate, alternatives to on-site detention shall be permitted. The methods may include:

Comment [MAD16]: I am assuming that the Public Works Department makes this determination, but what are the factors that go into this decision?

(a) Off-site detention or comparable improvements.

Comment [MAD17]: What are some examples of comparable improvements?

(b) In-lieu monetary contributions for channel improvements or off-site detention improvements by the City within the same watershed. Channel improvements shall only be used if the

2. In-Lieu Contributions to Regional or Sub-Regional Detention – An owner may contribute to the construction of a regional or sub-regional detention site constructed or to be constructed in lieu of constructing on-site detention. However, no in-lieu contributions are allowed when existing flooding occurs downstream from development, or if the development will cause downstream flooding.

Comment [MAD18]: Has the city identified possible locations/areas for regional/sub regional detention sites? Having these sites included on a map may help the city, developers & engineers plan and design.

Comment [MAD19]: What is the definition of flooding?

3. In-Lieu Contributions Fees – The in-lieu fee contribution shall be based upon an amount of \$10,000 per Acre-Foot of stormwater storage.
4. Excess Stormwater Storage Credit – An owner may receive credit for excess stormwater storage (in Acre-Feet) created on one site that may be applied to another site within the same watershed. The transfer of storage volume credit (in Acre-Feet) shall not be allowed when the site where credited storage is proposed to be transferred has an existing flooding condition downstream and the proposed development will produce downstream flooding.
5. Regional or Sub-Regional Detention Sites – The acquisition of regional or sub-regional detention site and construction of facilities thereon will be financed by the City. Monies contributed by the owners as above provided shall be used for regional and sub-regional detention site studies, land acquisition, facility construction and detention maintenance.
6. Watershed Boundaries - The boundaries of watersheds and priority of acquisition of regional and sub-regional detention sites in construction of detention facilities and location thereof shall be established by the City Engineer and approved by the Stormwater Management Board, to be overlaid on land use plan.

Comment [MAD20]: What is the definition of flooding?

Comment [MAD21]: What is the status of this map?

4.2 Performance Standards

A. Stormwater Channel Location – Generally acceptable locations of stormwater runoff channels in the design of a subdivision may include but not be limited to the following:

1. In a depressed median of a double roadway, street or parkway provided the median is wide enough to permit maximum three (3) to one (1) side slopes,
2. Along the roadway, street or parkway, (if the roadway, street or parkway is designated for stormwater runoff conveyance, this information shall be disclosed to the buyer)
3. Located along lot lines or entirely within the rear yards of single row of lots or parcels. Stormwater runoff channels located along front and side lot lines shall be enclosed with pipe. Channels along rear lot lines can be open ditch.
4. In each of the foregoing cases, a drainage easement to facilitate maintenance and design flow shall be provided and shown on the plat. Drainage easement required dimensions are shown in the

Comment [MAD22]: Why?

What if your side lot line is someone else's rear lot line?

Drainage Manual and shall conform to the dimensions given. No structures shall be constructed within or across stormwater channels without the acceptance of the city. All easements shall have a maintenance agreement.

- B. Easements – Drainage easements required to facilitate maintenance, detention and conveyance of stormwater shall be provided and shown on the final plat.
- C. Storm Sewer Outfall – The storm sewer outfall shall be designed so as to provide adequate protection against downstream erosion and scouring.
- D. Lot Lines – Whenever the plans call for the passage and/or storage of floodwater, surface runoff or stormwater along lot lines involving the storm system, grading of all such lots shall be prescribed and established for the passage and/or storage of waters, and no structure may be erected which will obstruct the flow of stormwater, no fences, shrubbery, or trees planted, or changes made to the prescribed grades and contours of the specified floodwater or stormwater runoff channels.
- E. Manholes – All sanitary sewer manholes constructed in a floodplain or in an area designed for the storage or passage of flood or stormwater, shall be provided with either a watertight manhole cover or be constructed with rim elevation of minimum one (1) foot above the high water elevation of the base flood, whichever is applicable to the specific area.
- F. Floor Elevations – The floor elevation or the ground elevation for a crawl space of any occupied residence or commercial building shall be established by the Engineer of Record using good engineering practices so the building structure should not flood under normal circumstances.

Comment [MAD23]: I would like to see a detail in the design manual of measures deemed to provide adequate protection.

Comment [MAD24]: How is this enforced?

Comment [MAD25]: CWL controls this...Are they agreeable to this? Will they enforce this?

Comment [MAD26]: What priority of flooding?

Comment [MAD27]: What is the definition of normal circumstances?

Comment [MAD28]: What about AC & gas tanks outside of the home. The FEMA Elev. Certificate requires information on outside machinery.

ARTICLE 5

BONDS, MAINTENANCE ASSURANCE, AND DRAINAGE ACCEPTANCE

5.1 Maintenance Agreement – A maintenance agreement assuring perpetual maintenance of stormwater management improvements shall be agreed upon by the City and the Permittee. **The maintenance agreement shall be the responsibility of the landowners.**

Maintenance of retention ponds (wet type) and/or detention basins (dry type) shall be the responsibility of the owner of record and/or the property owners' association. The City shall have the primary right to remove sediment when the basin's function is impaired. The owner of record and/or property owners' association shall be responsible for all other maintenance, planting, reseeding, or resodding. The owner shall also be responsible for removing and replacing any landscaping, playground equipment, or other facilities within the basin. If the City has to take action under this paragraph, the Owner shall be responsible for all cost incurred. The

Owner shall pay to the City within 30 days from receipt of an invoice the cost incurred. If the Owner does not pay the invoice the City may impose a lien upon the Owners land or issue a citation of violation of this provision of the Ordinance.

5.2 Performance or Payment Bond – A one-year performance or payment bond against defects in workmanship shall be required for any portion of the stormwater management improvements.

5.3 Drainage Permits– Upon acceptance of the final Stormwater Management/Drainage plan, and the Permittee’s assurances of performance maintenance as provided in these regulations, the City Engineer shall issue a permit in the name of the Permittee who shall then be known and thereafter be referred to as the Permittee. The permit shall set forth the terms and conditions of the Stormwater Management/Drainage plan.

5.4 Engineer of Record – Should the original Engineer of Record be prevented from completing the project, the Permittee shall employ another qualified engineer and immediately notify the City Engineer.

ARTICLE 6 ENFORCEMENT

6.1 General – It shall be the duty of the City Engineer to bring to the attention of the City Attorney any violation or lack of compliance of this ordinance.

6.2 Violations and Penalties – Any Permittee (person, firm or corporation) who fails to comply with or violates any these regulations shall be guilty of misdemeanor and upon conviction thereof shall be fined not less than \$100 per day and not more than \$500 per day.

6.3 Inspection – The City Engineer may make or cause to be made the inspection any tract of land for each of the following:

- A. Permit – Before the Codes Department issues a building permit, the City Engineer may examine or cause to examine any tract of land for which an application has been received or any tract of land for which a grading permit application has been received,
- B. Construction – The City Engineer may inspect or cause to be inspected at various intervals upon notification from the Permittee:
 - 1. Prior to the initiation of the project after temporary or permanent erosion prevention and sediment control practices have been installed, **or**
 - 2. after the completion of rough grading and installation of stormwater management structures, **or**
 - 3. upon completion of the project.

The City Engineer may accept that portion of the construction or grading as completed or shall notify the Permittee where violations are noted. Work shall not be done on any part of the tract of land beyond the point indicated in each successive inspection without first obtaining acceptance from the City Engineer. In particular, construction may not proceed until the site has been inspected to ensure the adequately sized temporary or permanent erosion prevention and sediment control practices have been installed and are operational for grading activities.

6.4 Record Certifications – Prior to issuance of any occupancy permit a registered engineer shall submit to the City Engineer certification that the stormwater management system and the public road system is complete and functional in accordance with the plans approved by the City Engineer. Any deviations from the approved plans shall be noted. To insure the adequacy of stormwater quantity detention facilities and stormwater management practices, this certification shall, at a minimum include “record drawings” showing final topographic features of all facilities. Hydrologic and hydraulic computations may be required for current conditions.

Comment [MAD29]: Professional

Prior to the issuance of any occupancy permit subject to minimum floor elevation requirements, a registered engineer and/or registered land surveyor shall submit to the City Engineer certification of the elevation (in relation to mean sea level) of the lowest floor (including basement); or if the structure has been flood proofed, the elevation to which the structure is flood proofed. This information must be provided on a FEMA Elevation Certificate if the property is located within a floodplain. To ensure that floodplain cut and fill balances have been achieved, record plans, cross-sections, and related calculations must be submitted for all floodplain manipulations.

Comment [MAD30]: Professional

Comment [MAD31]: Professional

Comment [MAD32]: OK, but what datum? NAVD 88, NGVD 29?

Comment [MAD33]: What format will the information above be provided in?

100 Year floodplain? 500 year floodplain?

Comment [MAD34]: What does this mean?

6.5 Revocation; Stop Work Orders - The City Engineer may revoke any permit issued under the provisions of these regulations when informed of any false statement misrepresentation of facts in the application or plans. Any non-permitted stormwater management system, or construction, or fill located within a floodplain shall, upon written notice, be removed at the expense of the property owner.

When it is found that any provisions of this regulation are being violated, the City Engineer may issue a stop work order. The stop work order shall be served upon the Permittee owner of the business, or property violating the provision for such work; or posting of the stop work order at the site of the violation or noncompliance.

A hearing to appeal the stop work order may be requested by anyone upon whom an order has been served. An appeal must be requested in writing to the Secretary of the Board or his/her designee within 30 ~~ten (10)~~ days after of service of the stop work order. The Stormwater Management Board shall hold an appeal hearing within 31 days of receipt of appeal. If no appeal is requested within 30 ~~ten (10)~~ days after of service of the stop work order, the stop work order shall remain in effect until compliance with of the appropriate regulation can be demonstrated to the satisfaction with the City Engineer. A compliance hearing that the work is in compliance with the relevant regulation may be requested at any time after issuance of the stop work order. The City Engineer shall schedule such hearings within ten (10) days of receiving the request.

ARTICLE 7
GENERAL PROVISIONS

7.1 Interpretation, Conflict and Severability Interpretations

A. Interpretation- In their interpretation and application, the provisions of these **regulations** shall be held to be the minimum requirements for the promotion of the public health, safety and general welfare.

B. Conflict with Public and Private Provisions- These **regulations** are not intended to interfere with, abrogate, or annul any other ordinance, rule or regulation statute or other provision of law. Where any provision of these **regulations** imposes restrictions different from those imposed by any other provision of these **regulations** or any other ordinance, rule or regulation, or other provision or law, whichever provisions are more restrictive or impose higher standards, shall control.

Private Provisions- These **regulations** are not intended to abrogate any easement, covenant or any other private agreement or restriction, provided that where the provision of these **regulations** are more restrictive or impose highest standards or **regulations** that such easement, covenant or other private agreement or restriction, the requirements these **regulations** shall govern. Where the provisions of easement, covenant or private agreement or restriction imposed duties and obligations more restrictive, or higher standards than the requirements of these **regulations**, and **regulations** or determinations there under, then such private provisions shall be operative and supplemental to these **regulations** and determinations made hereunder.

C. Severability – If any part of provision of these **regulations** or application thereof to any person or circumstances is adjudged invalid by any court or competent jurisdiction, such judgment shall be confined in its operation to that part, provision, or application directly involved in the controversy in which such judgment shall have rendered and shall not affect or impair the validity of the remainder of these **regulations** or the application hereof to other persons or circumstances. The governing body hereby declares that it would have enacted the remainder of these **regulations** even without any such part, provision or application found to be unlawful or invalid.

7.2 Saving Provision – These **regulations** shall not be construed as abating any action now pending under, or by virtue of, prior existing **regulations**, or as discontinuing, abating, modifying, or altering any penalty accruing or about to accrue, or as effecting the liability of any person, firm or corporation, or as waiving any right to the City under any section or provision existing at the time of adoption of these **regulations**, or as vacating or annulling any rights obtained by any person, firm, or corporation by lawful action of the City, except as shall be expressly provided for in these **regulations**.

7.3 Amendments – For the purpose of providing for the public health, safety and general welfare, the governing body may, from time to time, amend the provisions of these **regulations**. The Public works Department has the responsibility for updating, on a continuing basis, the **Stormwater** Drainage Manual.

7.4 Appeals

Only the **Permittee** ~~Permittee~~ may appeal an adverse decision of the City of Jonesboro regarding stormwater development issues, including, but not limited to, stormwater runoff quantity and quality, floodplain impact, **stop work orders**, and impact to neighboring properties, to the Stormwater Management Board.

All appeals and variance requests must be completed and filed on a form provided by the Director of Public Works, which shall provide:

1. The name of the owner or his authorized agent
2. The name of the **Permittee** ~~Permittee~~'s representative, if any
3. The case number, map number, and parcel number, if any
4. The interpretation that is claimed
5. The decision of the City Engineer or his agent
6. The location of the property
7. The stormwater drainage plans which were accepted, and the deviation from the stormwater drainage plan that is being requested
8. The specific action requested of the Board
9. The reasons justifying such action

All appeals and variance requests must be filed within thirty (30) days after an adverse decision of the office of the City Engineer for the City of Jonesboro regarding stormwater development issues, including, but not limited to, stormwater runoff quantity and quality, floodplain impact, **stop work orders** and impact to neighboring properties. The required items must be submitted ten (10) business days prior to the regular monthly Stormwater Management Board meeting for the appeal or variance to be heard at that meeting. A filing fee of \$100.00 will be charged to each Permittee payable to the City of Jonesboro. Permittee shall be responsible for publication fees.

All appeals and variance requests will be filed with the secretary to the Board. The secretary to the Board shall:

1. Accept all appeals and variance requests on behalf of the Board.

2. Assign each appeal or variance request a number.
3. Number each appeal or variance request consecutively in order of receipt (beginning on January 1 of each year), preceded by a hyphen and the year of filing.
4. Ensure that appeals or variance requests are heard in the order that they appear on the calendar.
5. Prepare an agenda and distribute it to each member of the Board at least five (5) business days before each meeting.
6. Send a copy of the agenda to the City of Jonesboro Public Works Committee, the Metropolitan Area Planning Commission, the Mayor, the City Clerk, the City Attorney, and the City Floodplain Administrator.
7. Include on the agenda an identification of each appeal or variance request to be heard and the information required above.

Variance Considerations

1. In passing variances for applications, the Stormwater Management Board shall consider all technical evaluations, all relevant factors, all applicable local ordinances and regulations, and:
 - a. The danger that materials may be swept onto other lands to the injury of others.
 - b. The danger to life and property due to flooding or erosion damage.
 - c. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner.
 - d. The importance of the services provided by the proposed facility to the community.
 - e. The necessity of the ancillary facility.
 - f. The availability of alternative locations, not subject to flooding or erosion damage, for the proposed facility.
 - g. The relationship of the proposed development or improvement plan to the master drainage plans for that area.
 - h. The safety of access to the property in times of flood for ordinary and emergency vehicles.
 - i. The expected heights, velocity, duration, rate of rise, and sediment transport of the floodwaters expected at the site.
 - j. The costs of providing governmental services during and after flood conditions including

maintenance and repair of public utilities and facilities such as sewer, gas, electrical, and water systems, and streets and bridges.

- k. Any other relevant facts that pertain to compliance with City Ordinances and Regulations or are mandated by Federal or State laws, rules, or regulations.
2. Upon consideration of the factors listed above, and the objectives of these regulations, the Stormwater Management Board may attach such conditions to the granting of variances as it deems necessary to further the objectives of these regulations.
3. Conditions for variances:
 - a. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief; and in the instance of a historical building, a determination that the variance is the minimum necessary so as not to destroy the historic character and design of the building.
 - b. Variances shall only be issued upon (i) a showing of good and sufficient cause, (ii) a determination that failure to grant the variance would result in exceptional hardship, and (iii) a determination that the granting of a variance will not result in any of the following: (a) increased flood heights; (b) additional threats to public safety or extraordinary public expense; (c) create a public or private nuisance; (d) cause fraud on or victimization of the public; (e) or conflict with existing Federal and State laws, rules, regulations.
 - c. The Secretary of the Stormwater Management Board shall maintain the records of all appeal actions.
 - d. The City Floodplain Administrator shall report any variances to the Federal Emergency Management Agency upon request.
5. Variances may be issued for the reconstruction, rehabilitation, or restoration of structures listed on the National Register of Historic Places or the State Inventory of Historic Places without regard to the procedures set forth in this section, except for Items 3a, 3c, and 3d above, and provided the proposed reconstruction, rehabilitation, or restoration will not result in the structure losing its historical designation.

Open Meetings

All meetings of the Board shall be open to the public. The Board shall meet at regular monthly intervals with the day and time to be determined by the chairman.

Notice of such regular or special meetings shall be provided to the media as required by the Arkansas Freedom of Information Act by the secretary of the Board who shall notify the City Clerk and all notices of meetings shall be posted on the City of Jonesboro web site.

The Board shall provide 15 minutes at the conclusion of each regular Board meeting for public comment on non-agenda items. Each individual is required to limit his or her comments to 5 minutes. The Board reserves the right to suspend the rules and allow additional time, if necessary.

Hearing Procedure

1. Members and alternates of the Board shall receive Permittee's documents from the secretary no less than five (5) business days before the appeal hearing date.
2. Following the introduction of the case, the Board will be given two (2) minutes to review documents pertinent to the appeal hearing.
3. The **Permittee** or *Permittee's agent* will be allowed ten (10) minutes to present their case to the Board. If deemed necessary, the Board chairman may allow additional time, not to exceed five (5) minutes.
4. City of Jonesboro technical staff shall be given ten (10) minutes for questions and comments. Technical staff shall include, but not be limited to, the City Engineer, the Assistant City Engineer, the City Floodplain Administrator, the City Public Works Director or any designated city staff with pertinent technical information related to the appeal. If deemed necessary, the Board chairman may allow additional time, not to exceed five (5) minutes.
5. The Mayor and/or City Council member(s) shall be given two (2) minutes to speak if he or she requests time to comment.
6. A public representative, for or against the requested variance, may have two (2) minutes to comment, with a maximum of three persons representing each side. Persons wishing to address the Board shall register with the Secretary of the Board or his/her designee, including their name, address and a brief description of their concern, prior to the beginning of the appeal hearing.
7. Rebuttal will be limited to two (2) minutes per each public representative.
8. The **Permittee**, City of Jonesboro technical staff, or others present will then respond to questions from the Board.
9. Upon a motion by any Board member specifically stating the amount of additional time requested and approval **by** five members of the Board, additional time may be granted to a speaker.
10. Once a motion and a second to the motion are made, further discussion is limited to members of the Board unless they have additional questions for the Permittee or others. In the absence of procedures included in the Board's enabling legislation or this document, the most recent edition of the Robert's Rules of Order shall apply.

Conduct During Appeal Hearing

Any person other than a Board member shall only address their comments to the Board, shall respond to the questions asked, and shall accord the utmost courtesy of the Board and the other participants. The chairman reserves the right to remove any participant from the hearing upon repeated rude or derogatory remarks, abusive comments and unsubstantiated statements as to motives and/or personalities.

Decision of the Board

At the conclusion of all of the evidence in all cases heard at that hearing session, the Board shall discuss the cases and render decisions on that date or defer decisions for no longer than 31 days thereafter. The Board shall have the authority to table, approve or deny a variance or appeal.

Permittee may withdraw his, her, or its appeal one time. The appeal shall be heard at the next regularly scheduled Board meeting. If Permittee withdraws his, her or its appeal a second time, the **Permittee** must wait 180 days before requesting an appeal to be heard by the Board.

Any action taken by the Board shall be by motion which shall state the reason or reasons for the action taken with particularity. All the decisions of the Board shall be in writing, and must indicate the vote of the Board upon the decision.

A quorum of the Board must be present to render any decisions. Five (5) Board members are considered a quorum and there must be five (5) votes to take any affirmative action.

The vote of an alternate member of the Board shall be counted in the tabulation of the result only if she or he is substituting for a regular member. If the alternate member is not substituting for a regular member, the vote shall be recorded but not counted in the decision of the Board.

The resolution of the Board on each appeal shall be promptly entered in the minutes of the meeting of the Board by the secretary and filed with the City Clerk's office.

Re-hearings

No re-hearing of a decision by the Board shall be held except on motion to reconsider that vote by a member of the majority of the Board on the preceding vote, or

The Board shall hold a re-hearing, if a motion or written request to reconsider a prior decision receives 5 votes of a quorum of the Board.

If the request for a re-hearing is granted, the case shall be put on the calendar for a re-hearing. In all cases, the request for a re-hearing shall be by the Permittee in writing, reciting the reasons for the request, and shall be duly verified and accompanied by the necessary data and diagrams. The Permittee requesting the re-hearing shall be notified to appear before the Board on a date to be set by the Board. The notification shall be by the secretary of the Board.

7.5 Conflict of Interest

No member of the Board shall act on any case in which he or she has a personal interest, whether it is a direct or indirect financial interest in the property itself, or by virtue of family relationship with the Permittee pursuant to the City of Jonesboro's Code of Ethics (Code Section 2.20.14).

Any person who has a conflict shall notify the chairman or secretary immediately upon realizing a conflict may exist. A Board member who has a conflict may not participate as a Board member on the item in which he or she has a conflict of interest.

An alternate member shall replace any member who has a conflict of interest or who is unable to attend due to an illness or an extended absence from the metropolitan area. The secretary of the Board shall be responsible for contacting the Board members prior to the meeting to determine the need for alternate members. If an alternate member is needed, the secretary shall be responsible for contacting the alternate member.

7.6 Special Meetings

The chairman or vice chairman may call special meetings at a time and place of their choosing. Whenever such a special meeting is called, the public shall be notified by appropriate means in accordance with the Arkansas Freedom of Information Act.

7.7 Board Announcements

Public announcements including, but not limited to, Board decisions, Board recommendations or other Board actions shall be released to the public upon approval by the Board or in the interim upon approval by the Chair, or in his absence, the Vice-Chair.

7.8 Appeals from Decisions of the Board

Any aggrieved party may appeal any decision of the Board to the Craighead County Circuit Court as provided in ARK. CODE ANN. §14-56-425.

ARTICLE 8 **LIABILITY**

8.1 Disclaimer of Liability – The performance standards and design criteria set forth herein and in the Drainage Manual establish minimum requirements which must be implemented with good engineering practice and workmanship. Use of the requirements contained herein shall not constitute a representation, guarantee, or warranty of any kind by the City, or its officers and employees of the adequacy or safety of any Stormwater Management/Drainage plan imply that the land uses permitted will be free from damages caused by stormwater runoff. The degree of protection required by these **regulations** is considered reasonable for regulatory purposes and is based on historical records, engineering and scientific methods of study. Larger storms may occur or stormwater runoff heights may be increased by man-made or natural causes.

These regulations, therefore, shall not create liability on the part of the City or any officer or employee with respect to any legislative or administrative decision lawfully made hereunder.