City of Jonesboro

Municipal Center
300 S. Church Street
Jonesboro, AR 72401

Meeting Agenda

Public Works Council Committee

Tuesday, August 6, 2024 | **5:00 PM** | **Municipal Center, 300 S. Church**

1. CALL TO ORDER

2. ROLL CALL (ELECTRONIC ATTENDANCE) CONFIRMED BY CITY CLERK APRIL LEGGETT

3. APPROVAL OF MINUTES

MIN-24:056 Minutes for the Public Works Committee meeting on June 04, 2024

Attachments: Minutes

4. NEW BUSINESS

ORDINANCES TO BE INTRODUCED

ORD-24:022 AN ORDINANCE ADOPTING THE FLOOD INSURANCE STUDY (FIS) AND FLOOD INSURANCE RATE MAP (FIRM) FOR "CRAIGHEAD COUNTY ARKANSAS AND INCORPORATED AREA," DATED SEPTEMBER 26, 2024; AND AMENDING BOTH THE STORMWATER MANAGEMENT REGULATIONS AND THE STORMWATER DRAINAGE DESIGN MANUAL OF THE CITY OF JONESBORO

Sponsors: Engineering

Attachments: Sec. 112 67. Decision of the board.
Floodplain Guidelines Article 3.
Sec. 112-62 APPEALS AND VARIANCES Article 2 Sec F
Sec. 109 1. Special flood hazard areas.
Sec. 112 1. Def Article 1
Sec. 112 10. FDP Article 2 Sec. C
Sec. 112 63. Variance Article 2 Sec. E

5. PENDING ITEMS

6. OTHER BUSINESS

7. PUBLIC COMMENTS

8. ADJOURNMENT

City of Jonesboro

300 S. Church Street
Jonesboro, AR 72401

Text File

File Number: MIN-24:056

Agenda Date:

Version: 1

Status: To Be Introduced

In Control: Public Works Council Committee

File Type: Minutes

Minutes for the Public Works Committee meeting on June 04, 2024

City of Jonesboro

Municipal Center
300 S. Church Street
Jonesboro, AR 72401

Meeting Minutes
Public Works Council Committee

Tuesday, June 4, 2024 | **5:00 PM** | **Municipal Center, 300 S. Church**

1. CALL TO ORDER

2. ROLL CALL (ELECTRONIC ATTENDANCE) CONFIRMED BY CITY CLERK APRIL LEGGETT

Present 7 - John Street;Mitch Johnson;Chris Moore;Charles Coleman;LJ Bryant;Ann Williams and Janice Porter

Absent 1 - Anthony Coleman

3. APPROVAL OF MINUTES

MIN-24:044 Minutes for the Public Works Committee meeting on May 7, 2024

Attachments: Minutes

A motion was made by Mitch Johnson, seconded by Charles Coleman, that this matter be Passed . The motion PASSED with the following vote.

Aye: 6 - Mitch Johnson;Chris Moore;Charles Coleman;LJ Bryant;Ann Williams and Janice Porter

Absent: 1 - Anthony Coleman

4. NEW BUSINESS

RESOLUTIONS TO BE INTRODUCED

RES-24:048 A RESOLUTION REQUESTING FREE UTILITY SERVICES FROM CITY WATER AND LIGHT FOR TRAFFIC SIGNALS

Sponsors: Engineering

A motion was made by Mitch Johnson, seconded by LJ Bryant, that this matter be Recommended to Council . The motion PASSED with the following vote.

Aye: 6 - Mitch Johnson;Chris Moore;Charles Coleman;LJ Bryant;Ann Williams and Janice Porter

Absent: 1 - Anthony Coleman

RES-24:049 A RESOLUTION REQUESTING FREE UTILITY SERVICES FROM CITY WATER AND LIGHT FOR CITY-OWNED PROPERTY

Sponsors: Engineering

A motion was made by Mitch Johnson, seconded by Ann Williams, that this matter be Recommended to Council . The motion PASSED with the following vote.

Aye: 6 - Mitch Johnson;Chris Moore;Charles Coleman;LJ Bryant;Ann Williams and Janice Porter

Absent: 1 - Anthony Coleman

RES-24:050 RESOLUTION BY THE CITY COUNCIL OF THE CITY OF JONESBORO, ARKANSAS AUTHORIZING THE MAYOR TO ENTER INTO AN AGREEMENT WITH MARCK INDUSTRIES, INC TO PERFORM RECYCLING PROCESSING SERVICES

Sponsors: Sanitation

Attachments: Bid 2024-01 Recycling Processor Tabulation
Recycling contract with Marck--one party signed

Chairman John Street said, I would just make one comment. Abilities Unlimited was $625 recycle ton as opposed to Marck's $188.77, so it was considerably lower. Councilmember LJ Bryant said, Mr. Chairman could Brian or somebody speak to what we're currently paying. I mean, it's obviously it is what it is, but… Or Tony. Chief Operating Officer Tony Thomas approached the podium and said, first of all, good evening. Honestly, I was looking, I suspected that question would come up, so I was looking in Legistar at the old contract and I have yet to locate that. I do know that this price is somewhat marginally higher than what we were paying. My recollection is Abilities was around the $145 mark prior to this. There had been a number of negotiations with Abilities over the years to get to that price. As you recall, they were originally picking up as well as processing our recycling product. Abilities did approach us at the beginning, well the middle of last year needing a price increase in order to do what they were currently doing, thus we moved forward with a bid process. And as you can see, there was a significant difference, but I'll keep looking in the meantime and get you a response with the exact price, but my recollection is around $145. Councilmember LJ Bryant said, how will this compare to the budget? Will this be a major change against what's budgeted? Chief Operating Officer Tony Thomas said, no we've actually didn't, our waste stream has been, for recycling, has been slightly below the norm, as far as this time of year, and so there's been some cost savings there that we think will cover what we have currently budgeted. Then as we look forward to next year's budget, we'll look at that stream and make adjustments as needed in order to cover any additional cost.

Chief Operating Officer Tony Thomas approached the podium and said, just for the record for that question, we were paying $148 per ton for the recyclables currently.

A motion was made by Charles Coleman, seconded by Ann Williams, that this matter be Recommended to Council . The motion PASSED with the following vote.

Aye: 6 - Mitch Johnson;Chris Moore;Charles Coleman;LJ Bryant;Ann Williams and Janice Porter

Absent: 1 - Anthony Coleman

RES-24:054 A RESOLUTION TO THE CITY OF JONESBORO, ARKANSAS TO AUTHORIZE THE MAYOR AND CITY CLERK TO ACCEPT A DRAINAGE EASEMENT FROM WILLIAM CHILDERS THE PURPOSE OF CONSTRUCTING AND MAINTAINING DRAINAGE IMPROVEMENTS

Sponsors: Engineering

Attachments: Permanent Drainage Easement

A motion was made by Charles Coleman, seconded by Mitch Johnson, that this matter be Recommended to Council . The motion PASSED with the following vote.

Aye: 6 - Mitch Johnson;Chris Moore;Charles Coleman;LJ Bryant;Ann Williams and Janice Porter

Absent: 1 - Anthony Coleman

RES-24:055 A RESOLUTION EXPRESSING THE WILLINGNESS OF THE CITY OF JONESBORO TO UTILIZE FEDERAL-AID MONIES FOR THE FOLLOWING PROJECT: HIGHWAY 49/CHRISTIAN VALLEY DRIVE INTERSECTION IMPROVEMENTS

Sponsors: Engineering

Attachments: ArDOT 04302024

Chairman John Street said, I assume this will be 80/20, Craig, is that right? In fact, if you would be on your way while I read the rest of this.

Chairman John Street said, and that is the intersection of Christian Valley and Highway 49, which is very dangerous intersection. Definitely in my opinion, in need of a light because the number of school buses that traverse that intersection, as well as people going to and from events at school or to school. But if you want to explain that Craig. Engineering Department Director Craig Light approached the podium and said, I agree with you. We've had a lot of phone calls through the years about that intersection, and we requested, I believe it was by the school, to look at it and see if it met the warrants for traffic signals so we initiated that. And it came back that it did, so we had the letter sent to ArDOT to have them confirm. They agreed and that's what moved this forward. There is a need for a traffic signal at that location. Their cost estimate, it seems, I don't know if it's an attachment to this or not, but their estimated cost on it seemed a little bit high. It included property acquisition and utilities adjustments. Not really anticipating that those are going to be needed for this project, but the city would be responsible for that. They're estimating the city's share would be $575,000. If you can see that, they have utilities and Right-of-Way acquisitions as part of that, so I don't think it will be that high. Total. But, by the time it gets designed and out to bid, I mean, we're probably looking at another 18 months, so we'll see what it comes out at when it actually happens. But it is a warranted…. Chairman John Street said, I know when we asked for that before, of course it's been several years back, when they came through there and widened everything, they were a little reluctant to do that, I think, because the light was already down there at the end, but I don't think with the anticipated growth in that area and the use of that particular intersection right there, but it's… I don't know what the traffic count is there either, you may have that, but it's well traveled. Director Craig Light said, it's been a while since I've looked at those numbers, but like I said, there's been a lot of traffic accidents at that location that kind of lead to our really looking at it. Once we saw the number of accidents happening at it, we thought it probably needed a further look at it.

Councilmember Chris Moore said, Craig, that $1,700,000 estimate, that was the prepared by the Highway Department? Director Craig Light said, it was. The last one that we've had out to bid, and it's actually about to start construction, ended up being about a $660,000 construction cost, and that was the one for the FedEx facility at

Great Dane and 18 where FedEx or the owner of that property is actually paying for that project. But it was a $660,000, or will be, construction project with some land adjustments. I'm hoping that ArDOT is just overestimating what it's going to cost. Councilmember Chris Moore said, they estimated $880,000 just for construction. Director Craig Light said, right. Councilmember Chris Moore said, we're spending, it looks like, on that fabulation behind me, 15% on the engineering, so they are over in the engineering fees. Director Craig Light said, right. Yup. Correct. I'm hoping that their numbers are just conservative and they will come in less than that. Ultimately.

Chief Administrative Officer Brian Richardson approached the podium and said, I was just going to reinforce what Mr. Light had said. Of course I see it every day, taking my daughter to school and picking her up, and talking to multiple parents and facility there at the school. It's been a long-time concern over there. We've actually personally witnessed, I think this past year, two wrecks. One was a student and a semi-truck, which fortunately turned out ok. I know MPO has done several studies on it and I think the last one that they looked at was somewhere around 5,000 traffic movements a day during the school year right there, as far as turning on and off Christian Valley Road. It's definitely a high priority need, and we're glad to see that the Highway Department saw it that way. It's a good project. Chairman John Street said, that tells you right there that when they endorse it, pretty much on their own, that tells you a lot right there because they're usually kind of reluctant, but that is a very dangerous intersection. I couldn't remember exactly what the traffic count was but it's pretty bad. Councilmember Chris Moore said, and then we're fixing to have a McDonald's go in right there by it too. Chairman John Street said, yeah and as that area continues to expand it's only going to get worse.

A motion was made by Mitch Johnson, seconded by Ann Williams, that this matter be Recommended to Council . The motion PASSED with the following vote.

Aye: 6 - Mitch Johnson;Chris Moore;Charles Coleman;LJ Bryant;Ann Williams and Janice Porter

Absent: 1 - Anthony Coleman

5. PENDING ITEMS

6. OTHER BUSINESS

7. PUBLIC COMMENTS

8. ADJOURNMENT

A motion was made by LJ Bryant, seconded by Mitch Johnson, that this meeting be Adjourned. The motion PASSED with the following vote.

Aye: 6 - Mitch Johnson;Chris Moore;Charles Coleman;LJ Bryant;Ann Williams and Janice Porter

Absent: 1 - Anthony Coleman

Agenda Date: **Version:** 1 **Status:** To Be Introduced

In Control: Public Works Council Committee **File Type:** Ordinance

AN ORDINANCE ADOPTING THE FLOOD INSURANCE STUDY (FIS) AND FLOOD INSURANCE RATE MAP (FIRM) FOR "CRAIGHEAD COUNTY ARKANSAS AND INCORPORATED AREA," DATED SEPTEMBER 26, 2024; AND AMENDING BOTH THE STORMWATER MANAGEMENT REGULATIONS AND THE STORMWATER DRAINAGE DESIGN MANUAL OF THE CITY OF JONESBORO

WHEREAS, the Legislature of the State of Arkansas has in Ark. Code Ann. § 14-268-101 et seq., delegated the responsibility of local governmental units to adopt regulations to minimize flood losses.

WHEREAS, the City Council adopted the Stormwater Management Regulations and the Stormwater Drainage Manual on December 18, 2008 (ORD-08:099);

WHEREAS, this ordinance is to promote the public health, safety and general welfare, to prevent adverse impacts from any floodplain development activities, and to minimize public and private losses due to flooding events in identified Special Flood Hazard Areas. This ordinance advances the stated purpose through provisions designed to: Protect human life and health, protect natural floodplains against unwise development, eliminate adverse impacts of necessary floodplain development, minimize expenditure of public monies on flood control projects, minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public, minimize prolonged business interruptions due to flooding events, minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in Special Flood Hazard Areas, minimize future flood blight areas to help maintain a stable tax base, and provide for notice to potential buyers when property is in a Special Flood Hazard Area; and,

WHEREAS, to provide public notice of the City's intent, advising the public that three (3) copies of the Flood Insurance Study (FIS) and Flood Insurance Rate Map (FIRM), both dated September 26, 2024, are on file and available for review in the Office of the City Clerk.

NOW THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF JONESBORO, ARKANSAS THAT:

Section 1: That the Flood Insurance Study (FIS) and Flood Insurance Rate Map (FIRM) for "Craighead County Arkansas and Incorporated Areas," dated September 26, 2024 are hereby adopted by reference.

Section 2: That Chapter 112 of Jonesboro Technical Code of Ordinance (Stormwater Management Regulations) is hereby amended to include the changes indicated in red in the attached.

Section 3: That the City of Jonesboro Technical Code (Stormwater Drainage Design Manual) is hereby amended to include the changes indicated in red in the attached.

Sec. 112-67. Decision of the board.

(a) 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.

(b) The developer may withdraw his appeal one time. The appeal shall be heard at the next regularly scheduled board meeting. If applicant withdraws an appeal a second time, the developer must wait 180 days before requesting that the appeal be heard by the board.

(c) 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.

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

(e) The vote of an alternate member of the board shall be counted in the tabulation of the result only if 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.

(f) The decision of the board on each appeal shall be promptly entered on the minutes of the meeting of the board by the secretary and filed in the city clerk's office.

(g) Any time the Stormwater Management Board issues a variance, it must provide the applicant with a formal written warning of an increased risk of flood damage due to removal of restrictions designed to lessen such risks. The notice must also warn of a corresponding increase in the cost of flood insurance, since the cost of such insurance will be commensurate with the increased risk.

(Ord. No. 08:099, § 2(7.4), 12-18-2008)

9.0 FLOODPLAIN GUIDELINES

9.1 General Standards

The following standards apply to all developments in Special Flood Hazard Areas, regardless of the type of proposed development or the Risk Zone of the proposed site:

(1) All new and substantial construction or substantial improvements shall be designed (or modified) and adequately anchored to prevent flotation, collapse or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy;

(2) All new construction or substantial improvements shall be constructed by methods and practices that minimize flood damage;

(3) All new construction or substantial improvements shall be constructed with materials resistant to flood damage;

(4) All critical facilities constructed or substantially improved in Special Flood Hazard Areas (SFHA) must be constructed or modified to exceed 500-year flood protection standards or located outside the SFHA;

(5) The placement or construction of all new structures must be in full compliance with the provisions of this Code;

(6) For the purposes of this Code, all mixed-use structures are subject to the more stringent requirements of residential structures;

(7) A substantial improvement or substantial damage to an existing structure triggers a requirement to bring the entire structure into full compliance with the provisions of this Code. The existing structure, as well as any reconstruction, rehabilitation, addition, or other improvement, must meet the standards of new construction in this Code;

(8) Any improvement to an existing structure that is less than a substantial improvement requires the improvement, but not the existing structure, to be in full compliance with the provisions of this Code;

(9) All manufactured homes to be placed within a Special Flood Hazard Area on a community's FIRM shall be installed using methods and practices which minimize flood damage. For the purposes of this requirement, manufactured homes must be elevated and anchored to resist flotation, collapse, or lateral movement. Methods of anchoring may include, but are not limited to, use of over-the-top or frame ties to ground anchors. This requirement is in addition to applicable State and local anchoring requirements for resisting wind forces. Screw augers or expanding anchors will not satisfy the requirement of this provision;

(10) The design or location of electrical, heating, ventilation, plumbing, and air conditioning equipment for new structures, or for any improvements to an

existing structure, must be elevated one (1) foot above the Base Flood Elevation (BFE); (Ord. No. 10:099, § 1, 01-18-2011)

(11) The design of all new and replacement water supply systems must minimize or eliminate infiltration of floodwaters into the system during base flood events;

(12) The design of all new and replacement sanitary sewage systems must minimize or eliminate infiltration of floodwaters into the system during flooding events, and must prevent sewage discharge from the systems into floodwaters;

(13) The placement of on-site waste disposal systems must avoid impairment to, or contamination from, the disposal system during base flood events;

(14) Construction of basement foundations in any Special Flood Hazard Area is prohibited;

(15) New construction and substantial improvements, with fully enclosed areas (such as garages and crawlspaces) below the lowest floor that are usable solely for parking of vehicles, building access or storage in an area other than a basement and which are below the base flood elevation shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or meet or exceed the following minimum criteria:

(a) A minimum of two (2) openings on separate walls having a total net area of not less than one (1) square inch for every square foot of enclosed area subject to flooding shall be provided;

(b) The bottom of all openings shall be no higher than one (1) foot above grade;

(c) Openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

(16) The placement of recreational vehicles (RV) in Special Flood Hazard Areas must either:

(a) Be temporary, as demonstrated by the RV being fully licensed, being on wheels or a jacking system, attached to the site only by quick disconnect type utilities and security devices, having no permanently attached additions, and being immobile for no more than 180 consecutive days; or else

(b) Meet all provisions of this Code applicable to manufactured home structures.

(17) All proposals for the development of a residential subdivision, commercial business park or manufactured home park/subdivision must have public utilities

and facilities such as sewer, gas, electrical and water systems located and constructed to minimize or eliminate flood damage;

(18) All proposals for the development of a residential subdivision, commercial business park or a manufactured home park/subdivision must include an adequate drainage plan to reduce exposure to flood hazards; and,

(19) All proposals for the development of a commercial business park or a manufactured home park/subdivision must include an adequate evacuation plan for the escape of citizens from affected nonresidential structures during flooding events.

(20) A minimum of a ten (10) foot buffer shall be placed between any structure and the floodway.

(21) The cost of any reconstruction, remodeling, addition or improvement to a structure in a Special Flood Hazard Area in the preceding three (3) years shall be considered as part of the current improvement costs in the substantial improvement determination, unless the specific improvements are otherwise excluded by definition. (Ord. No. 11:013, §1, 02-15-2011)

9.2 RISK ZONE SPECIFIC STANDARDS

In addition to the General Standards, the following standards apply to specific development types in specific Risk Zones. Risk Zones listed in this Code that do not appear on the current FIRM are not applicable.

(1) **In AE Risk Zones:** Special Flood Hazard Areas with base floods determined

(a) For Residential Structures in Zone AE:

1. For all new residential structures, the top surface of the lowest floor must have an elevation (1 feet or more) above the published BFE. This elevation must be documented on an Elevation Certificate properly completed by a Professional Engineer or Surveyor~~, or Architect~~ licensed to practice in the State of Arkansas.

2. For all substantial improvements or substantial damage to existing residential structures, the entire structure becomes subject to the requirements of a new residential structure.

3. For any reconstruction, rehabilitation, addition, or other improvement to an existing residential structure that is less than a substantial improvement, only the improved area, but not the entire structure, becomes subject to the requirements of a new residential structure.

(b) For Nonresidential Structures in Zone AE:

1. All new commercial, industrial or other nonresidential structures must either:

   a. have the lowest floor (including basement) elevated (1 feet or more) above the base flood level or
   b. be floodproofed such that, together with attendant utility and sanitary facilities, be designed so that below (an elevation of 2 feet above) the base flood level the structure is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy. (Ord. No. 11:059, §1, 09-20-2011)
   c. A registered professional engineer or architect shall develop and/or review structural design, specifications, and plans for the construction, and shall certify on a Floodproofing Certificate that the design and methods of construction are in accordance with accepted standards of practice as outlined in this subsection. A record of such certification which includes the specific elevation (in relation to mean sea level) to which such structures are floodproofed shall be maintained by the Floodplain Administrator.

2. For all substantial improvements or substantial damage to existing commercial, industrial or other nonresidential structures the entire structure becomes subject to the requirements of a new nonresidential structure.

3. For any reconstruction, rehabilitation, addition, or other improvement to an existing nonresidential structure that is less than a substantial improvement, only the improved area, but not the entire structure, becomes subject to the requirements of a new nonresidential structure.

(c) For Manufactured Homes in Zone AE:

1. All manufactured homes that are placed or substantially improved on sites:

   a. outside of a manufactured home park or subdivision,
   b. in a new manufactured home park or subdivision,
   c. in an expansion to an existing manufactured home park or subdivision, or
   d. in an existing manufactured home park or subdivision on which a manufactured home has incurred "substantial damage" as a result of a flood, be elevated on a permanent foundation such that the lowest floor of the

manufactured home is elevated (1 feet or more) above the base flood elevation and be securely anchored to an adequately anchored foundation system to resist flotation, collapse, and lateral movement.

2. Require that manufactured homes be placed or substantially improved on sites in an existing manufactured home park or subdivision on the community's FIRM that are not subject to the provisions of paragraph (1.) of this section be elevated so that either:

   a. the lowest floor of the manufactured home is (1 feet or more) above the base flood elevation, or
   b. the manufactured home chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than 36 inches in height above grade and be securely anchored to an adequately anchored foundation system to resist flotation, collapse, and lateral movement.

3. For all substantial improvements or substantial damage to existing manufactured home, the entire structure becomes subject to the requirements of a new manufactured home.

4. For any reconstruction, rehabilitation, addition, or other improvement to an existing manufactured home that is less than a substantial improvement, only the improved area, but not the entire structure, becomes subject to the requirements of a new manufactured home.

~~(d) Where FEMA has not established a regulatory floodway in Zone AE, no Floodplain Development Permit may be issued unless a detailed engineering analysis is submitted along with the application that demonstrates the increase in base floodwater elevation due to the proposed development and all cumulative developments since the publication of the current FIRM will be less than 1 foot.~~

When a regulatory floodway has not been designated, the Floodplain Administrator must require that no new construction, substantial improvements, or other developments (including fill) shall be permitted within Zones AE on the community's FIRM, unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more one (1) foot at any point within the community.

(2) **Floodways** - High risk areas of stream channel and adjacent floodplain

(a) Developments in regulatory floodways are prohibited, unless:

1. A No-Rise Certificate, signed and stamped by a Professional Engineer licensed to practice in the State of Arkansas, is submitted to demonstrate through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed development would not result in any increase in flood levels within the community during the occurrence of a base flood event; or

2. All requirements of 44 CFR §65.12 are first met.

(b) No Manufactured Home may be placed in a regulatory floodway, regardless of elevation height, anchoring methods, or No-Rise Certification.

(3) **In AH or AO Risk Zones:** Special Flood Hazard Areas of shallow flooding

(a) For Residential Structures in Zones AH or AO:

1. All new residential structures must be constructed with the top surface of the lowest floor elevated (1 feet or more) above the published BFE, or (2 feet or more) above the highest adjacent grade in addition to the depth number specified (at least 2 feet if no depth number is specified) on the community's FIRM. This elevation must be documented on an Elevation Certificate properly completed by a Professional Engineer or Surveyor ~~or Architect~~ licensed to practice in the State of Arkansas.

2. For all substantial improvements or substantial damage to existing residential structures the entire structure becomes subject to the requirements of a new residential structure.

3. For any reconstruction, rehabilitation, addition, or other improvement to an existing residential structure that is less than a substantial improvement, only the improved area, but not the entire structure, becomes subject to the requirements of a new residential structure

(b) For Nonresidential Structures in Zones AH or AO:

1. All new commercial, industrial or other nonresidential structure must either:

a. have the top surface of the lowest floor elevated (1 feet or more) above the published BFE, or (2 feet or more) above the highest adjacent grade in addition to the depth number specified (at least 2 feet if no depth number is specified) on the community's FIRM, with documentation on an Elevation Certificate properly completed by a Professional Engineer or Surveyor ~~or Architect~~ licensed to practice in the State of Arkansas; or

b. be floodproofed such that the structure, together with attendant utility and sanitary facilities be designed so that below (2 feet or more) above the published BFE in Zone AH, or (2 feet or more) above the base specified flood depth in an AO Zone, the structure is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads of effects of buoyancy. (Ord. No. 11:059, § 1, 09-20-2011)

2. For all substantial improvements or substantial damage to existing commercial, industrial or other nonresidential structures the entire structure becomes subject to the requirements of a new nonresidential structure.

3. For any reconstruction, rehabilitation, addition, or other improvement to an existing nonresidential structure that is less than a substantial improvement, only the improved area, but not the entire structure, becomes subject to the requirements of a new nonresidential structure.

(c) For Manufactured Homes in Zones AH or AO:

1. All manufactured homes that are placed or substantially improved on sites:

a. outside of a manufactured home park or subdivision,
b. in a new manufactured home park or subdivision,
c. in an expansion to an existing manufactured home park or subdivision, or
d. in an existing manufactured home park or subdivision on which a manufactured home has incurred "substantial damage" as a result of a flood, be elevated on a permanent foundation such that the lowest floor of the manufactured home is elevated (1 feet or more) above the published BFE, or (2 feet or more) above the highest adjacent grade in addition to the depth number specified (at least 2 feet if no depth number is specified) on the community's FIRM, and be securely anchored to an adequately anchored foundation system to resist flotation, collapse, and lateral movement.

2. Require that manufactured homes be placed or substantially improved on sites in an existing manufactured home park or subdivision on the community's FIRM that are not subject to the provisions of paragraph 1. of this section be elevated so that either:

a. the lowest floor of the manufactured home meets the elevation standard of paragraph 1., or

b. the manufactured home chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than 36 inches in height above grade and be securely anchored to an adequately anchored foundation system to resist flotation, collapse, and lateral movement.

3. For all substantial improvements or substantial damage to existing manufactured home, the entire structure becomes subject to the requirements of a new manufactured home.

4. For any reconstruction, rehabilitation, addition, or other improvement to an existing manufactured home that is less than a substantial improvement, only the improved area, but not the entire structure, becomes subject to the requirements of a new manufactured home.

(d) Where FEMA has not established a regulatory floodway in Zones AH or AO, no Floodplain Development Permit may be issued unless a detailed engineering analysis is submitted along with the application that demonstrates the increase in base floodwater elevation due to the proposed development and all cumulative developments since the publication of the current FIRM will be less than 1 foot.

(e) Require adequate drainage paths around structures on slopes, to guide flood waters around and away from proposed structures.

(4) **In "A" Risk Zones:** Special Flood Hazard Areas with no base flood elevations determined

(a) In Zone A, The applicant or the applicant's agent must determine a base flood elevation prior to construction. The BFE will be based on a source or method approved by the local Floodplain Administrator.

(b) For Residential Structures in Zone A:

1. For all new residential structures, the top surface of the lowest floor must have an elevation (1 feet or more) above the BFE. This elevation must be documented on an Elevation Certificate properly completed by a Professional Engineer or Surveyor ~~or Architect~~ licensed to practice in the State of Arkansas.

2. For all substantial improvements or substantial damage to existing residential structures, the entire structure becomes subject to the requirements of a new residential structure.

3. For any reconstruction, rehabilitation, addition, or other improvement to an existing residential structure that is less than a substantial improvement, only the improved area, but not the entire structure, becomes subject to the requirements of a new residential structure.

(c) For Nonresidential Structures in Zone A:

1. All new commercial, industrial or other nonresidential structures must either:

   a. have the lowest floor (including basement) elevated (1 feet or more) above the base flood level or
   b. be floodproofed such that, together with attendant utility and sanitary facilities, be designed so that below (an elevation of 2 feet above)the base flood level the structure is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy. (Ord. No. 11:059, § 1, 09-20-2011)
   c. A registered professional engineer or architect shall develop and/or review structural design, specifications, and plans for the construction, and shall certify on a Floodproofing Certificate that the design and methods of construction are in accordance with accepted standards of practice as outlined in this subsection. A record of such certification which includes the specific elevation (in relation to mean sea level) to which such structures are floodproofed shall be maintained by the Floodplain Administrator.

2. For all substantial improvements or substantial damage to existing commercial, industrial or other nonresidential structures the entire structure becomes subject to the requirements of a new nonresidential structure.

3. For any reconstruction, rehabilitation, addition, or other improvement to an existing nonresidential structure that is less than a substantial improvement, only the improved area, but not the entire structure, becomes subject to the requirements of a new nonresidential structure.

(d) For Manufactured Homes in Zone A:

1. All manufactured homes that are placed or substantially improved on sites:

   a. outside of a manufactured home park or subdivision,
   b. in a new manufactured home park or subdivision,
   c. in an expansion to an existing manufactured home park or subdivision, or
   d. in an existing manufactured home park or subdivision on which a manufactured home has incurred "substantial damage" as a result of a flood, be elevated on a permanent foundation such that the lowest floor of the

manufactured home is elevated (1 feet or more) above the base flood elevation and be securely anchored to an adequately anchored foundation system to resist flotation, collapse, and lateral movement.

2. Require that manufactured homes be placed or substantially improved on sites in an existing manufactured home park or subdivision on the community's FIRM that are not subject to the provisions of paragraph (1.) of this section be elevated so that either:

   a. the lowest floor of the manufactured home is (1 feet or more) above the base flood elevation, or
   b. the manufactured home chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than 36 inches in height above grade and be securely anchored to an adequately anchored foundation system to resist flotation, collapse, and lateral movement.

3. For all substantial improvements or substantial damage to existing manufactured home, the entire structure becomes subject to the requirements of a new manufactured home.

4. For any reconstruction, rehabilitation, addition, or other improvement to an existing manufactured home that is less than a substantial improvement, only the improved area, but not the entire structure, becomes subject to the requirements of a new manufactured home.

(e) Base flood elevation data and a regulatory floodway, utilizing accepted engineering practices, shall be generated for subdivision proposals and other proposed development including the placement of manufactured home parks and subdivisions which is greater than 50 lots or 5 acres, whichever is lesser, if not otherwise provided.

Sec. 112-62. Generally.

(a) Only the developer may appeal an adverse decision of the city 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 the designated Appeal Board.

1. The Stormwater Management Board will consider an appeal only with allegations of an error in any requirement, decision, or determination made by the Floodplain Administrator in the enforcement or administration of this section.
2. Upon consideration of the factors noted in Sec. 112-63 and the intent of this ordinance, the Stormwater Management Board may attach such conditions to the granting of variances as it deems necessary to further the purpose and objectives of this ordinance.
3. Stormwater Management Board decisions are binding only upon the requirements of this Section, and have no bearing on the decision of any lending institution to require the purchase of flood insurance or on the rate determination of such insurance.

(b) All appeals and variance requests must be complete and filed on the form provided by the secretary of the board and shall include:

(1) The name of the developer;

(2) The name of the developer'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, and;

(9) The reasons justifying such action.

(c) All appeals and variance requests must be filed within 30 days after an adverse decision of the office of the city engineer regarding stormwater development issues, including, but not limited to, stormwater runoff quantity or quality, or both, floodplain impact, stop work orders and impact to neighboring properties. The required items must be submitted ten 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 as established by the city council shall be charged to each appellant and shall be payable to the city. Appellant shall also be responsible for any and all publication fees.

(d) All appeals and variance requests will be filed with the secretary of the board. The secretary of 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 board member at least five business days before each meeting;

(6) Send a copy of the agenda to the city public works committee, the metropolitan area planning commission, the mayor, the city clerk, the city attorney, the public works director, the city engineer, and the city floodplain administrator; and

(7) Include on the agenda each appeal or variance request to be heard.

(Ord. No. 08:099, § 2(7.4), 12-18-2008)

Sec. 109-1. Special flood hazard areas.

The areas of special flood hazard identified by the flood insurance study dated September 26, 2024, and the flood insurance rate map and the flood boundary floodway map effective September 26, 2024, including any revisions thereto are hereby adopted by reference.

Sec. 112-1. Definitions.

For the purpose of these regulations, certain terms and words shall be used, interpreted, and defined as set forth in this section.

44 CFR (Emergency Management and Assistance – National Flood Insurance Program Regulations) Parts 59-75 contain Federal regulations upon which local floodplain managements are based

44 CFR § 65.12 – contains the section of the Federal regulations which involves revision of flood insurance rate maps to reflect base flood elevations caused by proposed encroachments.

100-year flood is any flood with a 1% chance of occurring in any given year. The term is misleading, because of its statistical derivation. A "100-year flood" may occur many times in any given 100-year period, or it may not occur at all in 100 years.

500-year flood is any flood with a 0.2% chance of occurring in any given year. As with the 100-year flood, this term is also misleading, because of its statistical derivation. A "500-year flood" may occur many times in any given 500-year period, or it may not occur at all in 500 years.

Accessory Structures are structures which are on the same parcel of property as the principle structure and the use of which is incidental to the use of the principle structure (such as garages and storage sheds).

Adverse impact means any negative or harmful effect.

AE or A1-30 Risk Zones are special flood hazard areas where detailed studies have determined base flood elevations. AE has replaced A1-30 in newer flood maps.

AH Risk Zones are special flood hazard areas characterized by shallow flooding with ponding effects (where floodwaters accumulate in depressions and linger until absorbed or evaporated).

AO Risk Zones are special flood hazard areas characterized by shallow flooding with sheet flow (where floodwaters flow in a broad, shallow sheet rather than through a narrow channel).

A Risk Zones are special flood hazard areas without detailed studies, where base flood elevations have not been determined.

Appeal Board means a person or persons specifically designated to render decisions on variance applications and floodplain management complaints.

Automatic entry and exit of floodwaters means that the water must be able to enter and exit with no intervening action from a person.

Base flood ~~means the flood that has a one percent chance of being equaled or exceeded in any given year, i.e., the 100-year flood.~~ is the flood profile used as the basis for the NFIP regulations. The Federal government has selected the 1% chance flood as the base flood.

Basement is any enclosed area that is below grade on all sides.

Base flood elevation (BFE) means the elevation shown on the Flood Insurance Rate Map for Zones AE, AH, A1-A30, AR, AR/A, AR/AE, AR/A1-A30, AR/AH, AR/AO, V1-V30, and VE that indicates the water surface elevation resulting from a flood that has a one percent chance of equaling or exceeding that level in any given year.

Best management practices (BMPs) means schedules of activities, prohibitions of practices, general good housekeeping practices, pollution prevention and educational practices, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants directly or indirectly to stormwater, receiving waters, or stormwater conveyance systems. BMPs also include treatment practices, operating procedures, and practices to control site runoff, spillage or leaks, sludge or water disposal, or drainage from raw materials storage.

Bond means the form of security for the completion or maintenance of drainage improvements.

Building means any structure built for the support, shelter, or enclosures of persons, animals, chattels, or movable property of any kind.

Buoyancy is the upward force exerted by water. Buoyancy can cause underground tanks to float free and can lift structures off foundations.

Certificates of Compliance are formal documents issued by floodplain administrators certifying that completed projects comply with the requirements of the local Code.

CFR is the acronym for the Code of Federal Regulations. The Code of Federal Regulations is the codification of the general and permanent rules published in the Federal Register by the executive departments and agencies of the Federal Government. It is divided into 50 titles that represent broad areas subject to Federal regulation. The Federal regulations pertaining to the national Flood Insurance Program are found in title 44, Emergency Management and Assistance.

Channel means 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.

Clearing is the act of cutting timber or shrubs from an area

Commercial Business Park is typically an area of offices or light industrial usage, although retail, service, or industrial usage is sometimes included in supporting roles. For example, a commercial business park of office complexes may also include restaurants which service these offices.

Compliance letter means an acceptance letter issued by the city engineer based upon the review of the stormwater management plan or construction plans as prepared and certified by the engineer of record for a project.

Concrete deadman anchors are heavy steel rods embedded in buried sections of concrete, used to secure items in place under tension.

Covenant is a clause in a contract that requires one party to do, or refrain from doing, certain things. A covenant frequently appears as a restriction that a lender imposes on a borrower.

Crawlspace is a type of structural foundation where the space beneath the lowest floor is typically not deep enough to allow a person to stand and not all four walls are below grade.

Conduit means any open or closed device for conveying flowing water.

Critical facilities includes governmental facilities that are considered essential for the delivery of critical services and crisis management (such as data and communication centers and key governmental complexes); facilities that are essential for the health and welfare of the whole population (such as hospitals, prisons, police and fire stations, emergency operations centers, evacuation shelters and schools); mass transportation facilities (such as airports, bus terminals, train terminals); lifeline utility systems (including potable water, wastewater, oil, natural gas, electric power and communications systems); high potential loss facilities (such as nuclear power plants or military installations); hazardous material facilities (such as industrial facilities housing or manufacturing or disposing or corrosives, explosives, flammable materials, radioactive materials and toxins).

Deed restriction refers to a clause in a deed that limits the future uses of the property in some respect. Deed restrictions may impose a vast variety of limitations and conditions, for example, they may limit the density of buildings, dictate the types of structures that can be erected, prevent buildings from being used for specific purposes or even from being used at all.

Detention means 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.

Detention basins means any man-made area which serves as a 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.

Developer means a person, legal entity, or its representative that improves unimproved land or rehabilitates or adds improvements to an existing improvement on previously improved land.

Development means any manmade change to improved or unimproved real estate. ~~including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation, or drilling operations or storage of equipment or materials.~~ It includes, but not limited to, construction, reconstruction, or placement of a building, or any addition or substantial improvements to a building. "Development" also includes the installation of a manufactured home on a site, preparing a site for a manufactured home, or installing/parking a travel trailer. The installation of utilities, construction of roads, bridges, culverts or similar projects are also "developments." Construction or erection of levees, dams, walls, or fences; drilling, mining, filling, dredging, grading, excavating, paving, or other alterations of the ground surface are "developments." Storage of materials including the placement of gas and liquid storage tanks are "developments," as are channel modifications or any other activity that might change the direction, height, or velocity of flood or surface waters. "Development" will normally not include maintenance of existing drainage ditches, gardening, plowing, planting, harvesting of crops, or similar practices that do not involve filling, grading, or construction of levees.

Development Permit refers to the permit required for placing a "development" in the floodplain.

Differential runoff means 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 existed prior to the development.

Drainage easement means authorization by a property owner for use by another party or parties for all or any portion of his or its land for drainage purposes.

Easements are rights or permissions held by one person to make specific, limited use of land owned by another person.

Elevation Certificate refers to FEMA form 81-31, which for the purposes of this Code must be properly completed by a Professional Engineer or Surveyor licensed to practice in the State of Arkansas.

Engineer of record means a professional engineer registered in the State of Arkansas who is responsible for the design and construction administration, observation, and inspection of the stormwater facilities proposed for specific development or redevelopment projects of all facilities to be dedicated to the City of Jonesboro.

Erosion is the process of soil removal by moving water.

Existing Structure means, for floodplain management purposes, a structure which is in place before any reconstruction, rehabilitation, addition, or other improvement takes place.

Existing Manufactured Home Park or Subdivision means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed before the effective date of the floodplain management regulations adopted by a community.

Expansion to an Existing Manufactured Home Park or Subdivision - means the preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads).

Facility means something designed, built, installed, etc., to serve a specific function affording a convenience or service

Federal Emergency Management Agency (*FEMA)* is the Federal agency responsible for administering the National Flood Insurance Program.

Fill refers to the placement of natural sand, dirt, soil, rock, concrete, cement, brick or similar material at a specified location to bring the ground surface up to a desired elevation.

Flood insurance rate map (FIRM) means the official map of a community on which FEMA has delineated both the special hazard areas and the risk premium zones applicable to the community.

Flood insurance study (FIS) means the official report provided by FEMA. It contains flood profiles, floodway tables, engineering methods, and other descriptive and technical data; or means an examination, evaluation, and determination of flood hazards and, if appropriate, corresponding water surface elevations, or an examination, evaluation, and determination of mudslide and/or flood-related erosion hazards.

Flooding means an overflowing of water resulting in the inundation or submergence of normally dry land.

Floodplain ~~means a land area adjoining a watercourse which is likely to be flooded.~~ refers to any land area susceptible to inundation by floodwaters from any source. For the purposes of this Code, floodplain refers to the land area susceptible to being inundated by the base flood.

Floodplain Administrator refers to the community official designated in the local Flood Damage Prevention Code as responsible for the Code's administration.

Floodplain Development Permit is a permit issued by the local Floodplain Administrator and is required before beginning any development in an area designated as a Special Flood Hazard Area on the community's FIRM.

Floodplain Management means the operation of an overall program of corrective and preventive measures for reducing flood damage, including but not limited to emergency preparedness plans, flood control works and floodplain management regulations.

Floodproofing means any combination of structural and nonstructural additions, changes, or adjustments to structures, which reduce or eliminate risk of flood damage to real estate or improved real property, water and sanitation facilities, or structures with their contents.

Floodproofing Certificate refers to FEMA form 81-65, which for the purposes of this Code must be properly completed by a Professional Engineer or Architect licensed to practice in the State of Arkansas.

Floodway ~~means the channel of a 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.~~ or *Regulatory Floodway* refers to a stream channel and the land to either side of the stream channel that must remain undeveloped and open in order to allow floodwaters to pass without increasing the base flood elevation more than a designated height. For the purposes of this Code, the height is one foot (1 ft.). Severe restrictions or prohibitions are imposed on development within the floodway.

Flow-through openings are openings specifically designed to allow floodwaters to flow into and out of enclosed spaces, minimizing the danger of foundation or wall collapse from lateral hydrostatic pressure.

Freeboard means 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.

Functionally dependent use means a use which cannot perform its intended purpose unless it is located or carried out in close proximity to water. The term includes only docking facilities, port facilities that are necessary for the loading and unloading of cargo or passengers, and ship building and ship repair facilities, but does not include long-term storage or related manufacturing facilities.

Grade means the surface of the ground.

Grading means to smooth the surface of the ground, typically with heavy construction equipment.

Grading permit means a permit issued by the city engineer which allows land disturbance activities (e.g., clearing, grading, excavation, etc.) on a specific development.

Hazardous materials means any material, including any substance, waste, or combination thereof, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may cause, or significantly contribute to, a substantial present or potential hazard to human health, safety, property, or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

Highest Adjacent Grade (HAG) means the highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

Historic structure means any building that is:

(1) Listed individually in the National Register of Historic places (a listing maintained by the Department of the Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register; or

(2) Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district; or

(3) Individually listed in a state inventory of historic places in states with preservation programs that have been approved by the Secretary of the Interior; or

(4) Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:

a. By an approved state program as determined by the Secretary of the Interior; or

b. Directly by the Secretary of the Interior in states without approved programs.

Hydrodynamic forces are the forces and stresses associated with moving water, including impacts from objects carried in the water.

Hydrostatic flood forces are the forces and stresses associated with standing floodwaters.

Illegal discharge means any direct or indirect non-storm water discharge to the storm drain system, except as exempted by these regulations.

Illicit connections means any drain or conveyance, whether on the surface or subsurface, which allows an illegal discharge to enter the storm drain system including but not limited to any conveyances which allow any non-storm water discharge including sewage, process wastewater, and wash water to enter the storm drain system and any connections to the storm drain system from indoor drains and sinks, regardless of whether said drain or connection had been previously allowed, permitted, or approved by an authorized enforcement agency or, any drain or conveyance connected from a commercial or industrial land use to the storm drain system which has not been documented in plans, maps, or equivalent records and approved by an authorized enforcement agency.

Lateral forces are the horizontal hydrostatic forces associated with standing water. Water exerts an equal force in all directions, and as little as three feet of standing water can generate sufficient lateral force to collapse a foundation or wall.

Local Special Flood Hazard Area is the geographical areas identified by the City of Jonesboro using the Base Level Engineering Studies, St. Francis, Cache and L'Anguille Watersheds, as being at risk for flooding not covered by the FEMA mapped designated Special Flood Hazard Areas.

Lowest floor refers to the lowest floor of the lowest enclosed area (including basement). For a typical slab-on-grade construction, the elevation of the lowest floor is the top of the first floor of the house. For a typical basement foundation construction, the elevation of the lowest floor is the top of the basement floor. For a typical crawlspace foundation construction, the elevation of the lowest floor is the top of the first floor of the house. For typical split-level constructions, the elevation of the lowest floor is the top of the first living floor; the garage floor is not the lowest floor as long as there are no living areas in the garage and it is used solely for storage, parking vehicles and entry to the house. The elevation of the lowest floor of a manufactured home, however, is the bottom surface of the lowest floor joist.

Maintenance.

Short-term maintenance means general upkeep of the site and facilities, specifically the mowing or trimming of grasses or other vegetative cover and the removal of litter and other minor debris that could impact the functionality of the facilities or that would otherwise be considered unsightly or a nuisance.

Long-term maintenance means removal of sediment deposits, re-grading or shaping of embankments, drainage channels, and detention areas, and repair or replacement of piping networks, and other drainage structures.

Manufactured (mobile) home means a structure built on a permanent chassis, transported to its site in one or more sections, and affixed to a permanent foundation. "Manufactured (mobile) home" does not include recreational vehicles.

Manufactured (mobile) home park or subdivision, existing means a manufactured (mobile) home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured (mobile) homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed on or before December 31, 1974, or before the effective date of the community's initial FIRM, whichever is later.

Manufactured (mobile) home park or subdivision, expansion to existing site means the preparation of additional sites by the construction of facilities for servicing the lots on which manufactured (mobile) homes are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads).

Manufactured (mobile) home park or subdivision, new means a manufactured (mobile) home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured (mobile) homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed after December 31, 1974, or on or after the effective date of the community's initial FIRM, whichever is later.

Mean Sea Level (MSL) means, for the purposes of the NFIP, the National Geodetic Vertical Datum (NGVD) of 1929 or other datum, to which base flood elevations shown on a community's FIRM are referenced.

Mixed Use Structures are structures with both a business and a residential component, but where the area used for business is less than 50% of the total floor area of the structure.

National Pollutant Discharge Elimination System (NPDES) storm water discharge permit means a permit issued by EPA (or by a state under authority delegated pursuant to 33 USC § 1342(b)) that authorizes the discharge of pollutants to waters of the United States, whether the permit is applicable on an individual, group, or general area-wide basis.

New construction means buildings for which the "start of construction" commenced on or after the effective date of an initial FIRM or after December 31, 1974, whichever is later, including any subsequent improvements.

No Adverse Impact principle is a principle of restricting or prohibiting land development that does harm or "adversely affects" someone else's property or land.

Nonresidential Structures are structures used only for commercial or public purposes, such as businesses, schools, churches, etc...

No-Rise Certificates are formal certifications signed and stamped by a Professional Engineer licensed to practice in the State of Arkansas, demonstrating through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that a proposed development will not result in any increase in flood levels within the community during the occurrence of a base flood event.

Non-storm water discharge means any discharge to the storm drain system that is not composed entirely of storm water.

NRCS (SCS) method means 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 watercourse over a specific time period.

On-site detention means temporary storage of runoff on the same land or development site where the runoff is generated.

Peak flow means the peak rate of flow of water at a given point in a watercourse or conduit.

Plat means a legally recorded plat of a parcel of land subdivided into lots with streets, alleys, easements, and other land lines drawn to scale.

Piers are columns of masonry or other structural material (commonly cement blocks stacked up to support a manufactured home), usually rectangular, used to support other structural members. For the purpose of this ordinance, piers must be permanent in nature.

Pilings are steel tubes driven to rock or a suitable soil bearing layer and connected to the foundation of a structure.

Pollutant means anything which causes or contributes to pollution. Pollutants may include, but are not limited to: colorants, paints, varnishes, and solvents; oil and other automotive fluids; non-hazardous liquid and solid wastes and yard wastes; refuse, rubbish, garbage, litter, or other discarded or abandoned objects, ordinances, and accumulations, so that same may cause or contribute to pollution; floatables; pesticides, herbicides, and fertilizers; hazardous substances and wastes; sewage, fecal coliform and pathogens; dissolved and particulate metals; animal wastes; wastes and residues that result from constructing a building or structure; and noxious or offensive matter of any kind.

Ponding is a flooding effect where floodwaters accumulate in shallow depressions and linger until absorbed or evaporated.

Project means any development involving the construction, reconstruction, or improvement of structures or grounds, or both.

Recreational vehicle means a vehicle which is:

(1) Built on a single chassis;

(2) Four hundred square feet or less when measured at the largest horizontal projections;

(3) Designed to be self-propelled or permanently towable by a light duty truck; and

(4) Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

Redevelopment means the demolition or removal of old buildings, structures, or other improvements to a developed site, and replacement or construction of new buildings, structures, or improvements on the same site.

Retention basin means 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.

Risk Zones categorize special flood hazard areas into groupings by the specific risk of flooding. Zones A, AE or A1-30, AO, and AH are Special Flood Hazard Areas. See "X Risk Zones" in this section.

Riverine flooding is flooding associated with a river or stream channel.

Screw augers are any type of anchor that twists into the soil, typically to a depth of 4 feet or more. They are not suitable for securing manufactured homes against floodwaters because saturated grounds often soften and fail to hold the anchor in place.

Section 404 Wetlands Permit is a permit required under Section 404 of the Clean Water Act for the discharge of dredged and fill material into any surface water of the United States. The US Army Corps of Engineers issues Section 404 permits.

Shallow flooding means a depth of less than 3 feet.

Special flood hazard area (SFHA) ~~means the land area covered by the floodwaters of the base flood.~~is the geographical areas identified on FEMA flood maps as being at-risk for flooding. The maps further categorize these areas into various flood risk zones A, AE or A1-30, AH, and AO.

Start of construction means for other than new construction or substantial improvements, under the Coastal Barrier Resources Act, this is the date the building permit was issued, provided that the actual start of construction, repair, rehabilitation, addition, placement, or other improvement was within 180 days of the permit date. The actual start means either the first placement of permanent construction of a building on site, such as the pouring of a slab or footing, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured (mobile) home on a foundation. For a substantial improvement, actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

State Coordinating Agency is the agency that acts as a liaison between FEMA and a community for the purposes of floodplain management. The Arkansas Natural Resources Commission is the State Coordinating Agency for Arkansas.

Stormwater drainage design manual means 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 regulations.

Stormwater management system means the collection of open channels, drainage swales, detention facilities, retention facilities, and enclosed conduits that comprise the overall drainage system for an area or region.

Stormwater pollution prevention plan means a document which describes the best management practices and activities to be implemented by a person or business to identify sources of pollution or contamination at a site and the actions to eliminate or reduce pollutant discharges to stormwater, stormwater conveyance systems, and/or receiving waters to the maximum extent practicable.

Stormwater runoff means 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.

Stormwater runoff management facility means any facility constructed to manage or otherwise control the flow of stormwater runoff from a site including but not limited to open channels, drainage swales, detention facilities, retention facilities, or enclosed stormwater conveyance systems.

Stream channels are depressed natural pathways through which water of any quantity routinely flows.

Structural development is a development that includes the placement or construction of a structure.

Structure means ~~any object constructed above or below ground. Pipes, manholes, and certain other utility structures which exist underground may be excluded from the definition.~~ for floodplain management purposes, a walled and roofed building, including a gas or liquid storage tank that is principally above ground, as well as a manufactured home.

Sub-basin means the area that contributes stormwater runoff to a given point in the overall stormwater management system.

Subdivision means a division of land into two or more lots or parcels, including the combination or recombination of two or more previously plotted lots. The term "subdivision" shall apply also to any division of land involving the dedication of a street to the public; provided, however, that any division of land for agricultural purposes into lots or parcels of five acres or more shall not be deemed a subdivision unless street dedication or the installation of utilities are involved.

Substantial damage means damage of any origin where the cost to restore a structure to its original undamaged state would equal or exceed 50 percent of the market value of the structure before any damage occurred. In determining whether substantial damage has occurred, estimators must use standard contractor and materials costs. There are no exceptions for homeowners who make their own repairs or for discounted or free raw materials.

Substantial improvement means any reconstruction, remodeling, addition or improvement to a structure with a cost equaling or exceeding 50 percent of the market value of the structure before any improvement. Improvements to correct identified violations of local health, sanitary or safety codes are not substantial improvements, regardless of the cost, as long as they are the minimum improvement necessary to bring the structure up to code. Alterations to historical structures are also exempted, as long as the improvement does not affect the structure's official status of historical structure.

Swale means a ditch or depression that is cut into the soil that allows the flow of water to pass.

Undeveloped property means real property which has not been altered from its natural state by the addition of any improvements such as buildings, structures, or other impervious area.

Uses vulnerable to floods are simply any land or structural uses that may be negatively affected by a flood.

Variance is a formal, written permission from the Appeals Board to construct or develop in a way that is inconsistent with the requirements of this Code. The variance only deals with this Code – the Appeals Board has no authority to waive any other governmental requirement, and has no say in the cost of flood insurance.

Violation means the failure of a structure or other development to be fully compliant with the community's floodplain management regulations. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in this Code is presumed to be in violation until such time as that documentation is provided.

Wastewater means any water or other liquid, other than uncontaminated storm water, discharged from a facility.

Watercourse alteration refers to any change that occurs within the banks of a watercourse.

Watercourse means any surface stream, creek, brook, branch, depression, reservoir, lake, pond, river, ditch, wetland, swamp area, or drainage way in or into which stormwater runoff flows.

Water Surface Elevation means the height, in relation to the National Geodetic Vertical Datum (NGVD) of 1929 (or other datum, where specified), of floods of various magnitudes and frequencies in the floodplains of coastal or riverine areas.

X Risk Zones are a special group of insurance risk zones. One type, shown as non-shaded areas on FEMA issued flood maps, indicates a zone where flooding is not expected to occur. The second type, shown as shaded

areas of FEMA flood maps, indicates a flood hazard area that is expected to be affected by the 500-year flood, but not by the 100-year base flood.

(Ord. No. 08:099, § 2(1.5), 12-18-2008; Ord. No. 09:063, § 2, 10-20-2009; Ord. No. 10:088, § 2, 12-21-2010; Ord. No. 10:098, § 1, 1-18-2011; Ord. No. 11:064, § 1, 10-4-2011)

Sec. 112-10. Floodplain development permit required.

A permit is required for all structural development, placement of manufactured structures, clearing, grading, mining, drilling, dredging, placement of fill, excavating, watercourse alteration, drainage improvements, roadway or bridge construction, individual water or sewer installation or any other development in a special flood hazard area to ensure conformance with the provision of this section of code.

(Ord. No. 08:099, § 2(2.5), 12-18-2008)

Sec. 112-63. Variance considerations.

(a) In passing variances for applications, the stormwater management board shall consider all technical evaluations, all relevant factors, all applicable local ordinances and regulations, and:

(1) The danger that materials may be swept onto other lands to the injury of others;

(2) The danger to life and property due to flooding or erosion damage;

(3) The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;

(4) The importance of the services provided by the proposed facility to the community;

(5) The necessity of the ancillary facility;

(6) The availability of alternative locations that is for the proposed facility, not subject to flooding or erosion damage;

(7) The relationship of the proposed development or improvement plan to the master drainage plans for that area;

(8) The safety of access to the property in times of flood for ordinary and emergency vehicles;

(9) The expected heights, velocity, duration, rate of rise, and sediment transport of the floodwaters expected at the site;

(10) 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, water systems, streets, and bridges; and

(11) Any other relevant facts that pertain to compliance with city ordinances and regulations or are mandated by federal or state laws, rules, or regulations.

(b) Upon consideration of the factors listed in subsection (a) of this section, 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.

(c) Conditions for variances.

(1) 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;

(2) Variances shall only be issued upon:

a. A showing of good and sufficient cause;

b. A determination that failure to grant the variance would result in exceptional hardship; and

c. A determination that the granting of a variance will not result in any of the following:

1. Increased flood heights or an increase in expected flood velocities;

2. Additional threats to public safety or extraordinary public expense;

3. Create a public or private nuisance;

4. Cause fraud on or victimization of the public; or

5. Conflict with existing federal or state laws, rules, and regulations; and

6. Will not result in any adverse impact upon other lands;

(3) Variances may not be issued for developments inside a regulatory floodway unless

a. all requirements of 44 CFR §65.12 are first met; or

b. the following requirements are met:

1. a No-Rise Certificate signed and sealed by a Professional Engineer licensed to practice in the State of Arkansas is submitted to document that no increase in the base flood elevation would result from granting a variance for the proposed development.

2. protective measures are employed to minimize damages during flooding events; and

3. the variance does not result in any adverse impact to other lands.

(4) The secretary of the stormwater management board shall maintain the records of all appeal actions, and;

(5) The city floodplain administrator shall report any variances to the Federal Emergency Management Agency upon request.

(d) Variances may be issued for;

a. 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 subsections (c)(1), (4) and (5) of this section, and provided the proposed reconstruction, rehabilitation, or restoration will not result in the structure losing its historical designation;

b. the new construction of, or substantial improvement to, a structure on a lot of 1/2 acre or less in size that is surrounded by contiguous lots with existing structures constructed below the base flood elevation; and

c. the new construction of, substantial improvement to, or other development necessary to conduct a functionally dependent use, provided that:

1. the criteria outlined is subsections (c) (3) and (d) and Sec. 112-62 are met, and

2. the structure or other development is protected by methods that minimize flood damages during the base flood and create no additional threats to public safety.

(Ord. No. 08:099, § 2(7.4), 12-18-2008)