



# Jackson County Missouri

Jackson County Courthouse  
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## Legislation Details (With Text)

**File #:** 3724      **Version:** 0      **Name:** Development of land in unincorporated Jackson County.  
**Type:** Ordinance      **Status:** Passed  
**File created:** 12/5/2005      **In control:** Public Works Committee  
**On agenda:** 12/5/2005      **Final action:** 1/9/2006  
**Title:** AN ORDINANCE amending sections 24004. and 24006., Jackson County Code, 1984, relating to the development of land in unincorporated Jackson County.  
**Sponsors:** Bob Spence  
**Indexes:** JACKSON COUNTY CODE, UNINCORPORATED JACKSON COUNTY  
**Code sections:**  
**Attachments:**

Date	Ver.	Action By	Action	Result
1/9/2006	0	County Legislature	Consent Agenda	
1/9/2006	0	County Legislature	perfect	Pass
1/9/2006	0	County Legislature	suspend the rules to consider final passage	Pass
1/9/2006	0	County Legislature	Consent Agenda	Pass
1/9/2006	0	County Legislature	adopt	Pass
1/6/2006	0	County Legislature	Go To 2nd Perfection	Pass
1/5/2006	0	Public Works Committee		
12/12/2005	0	Public Works Committee		
12/6/2005	0	County Legislature	Go To 1st Perfection	Pass
12/5/2005	0	County Legislature	assign to committee	

### IN THE COUNTY LEGISLATURE OF JACKSON COUNTY, MISSOURI

**AN ORDINANCE** amending sections 24004. and 24006., Jackson County Code, 1984, relating to the development of land in unincorporated Jackson County.

**ORDINANCE # 3724**, December 5, 2005

**INTRODUCED BY** Bob Spence, County Legislator

WHEREAS, chapter 240, Jackson County Code, 1984, known as " the Unified Development Code of Jackson County," or "the Code," sets out a scheme for the orderly development of land in unincorporated Jackson County, consistent with the intent and purposes of the County's Master Plan; and,

WHEREAS, the Director of Public Works has recommended that the Code be amended to provide for a Sni-a-bar Inundation (SBI) Overlay District, which will identify the drainageway where the construction of buildings would create obstructions during a hydrological event or dam breach that would cause a hazard to life or property; and,

WHEREAS, the recommended Code amendments would apply to all new residential and non-residential construction, requiring all new buildings to be constructed so that the first floor and basement floor are at least three (3) feet above the SBI inundation protection elevation; and,

WHEREAS, the Plan Commission conducted a public hearing on the recommended amendments on November 17, 2005, during which it heard testimony, and after which it voted 6-0 with one member abstaining to recommend approval of the amendments to the Legislature; and,

WHEREAS, the proposed amendments are in the best interests of the health, welfare, and safety of the citizens of Jackson County; therefore,

BE IT ORDAINED by the County Legislature of Jackson County, Missouri, as follows:

Section A. Enacting Clause. Section 24004. and 24006., Jackson County, 1984, are amended to read as follows, with any affected subsections to be renumbered accordingly:

**24004.13      OVERLAY DISTRICTS**

The following districts are overlay districts. The provisions of these districts apply in addition to the provisions of the underlying zoning district applicable to a tract of land. The Floodway (FW) and Floodway Fringe (FF) overlay districts restrict the use of land within any district due to the environmental hazards of flooding. The Sni-a-bar Inundation (SBI) Overlay District restricts the use of land due to the environmental hazard of a hydrological event. The Planned Development (PD) district and the Underground (UG) overlay districts provide greater development flexibility than underlying zoning districts.

**24004.14      FLOODWAY OVERLAY DISTRICT (FW)**

- a. **Purpose.** The areas designated in the Floodway Overlay District (FW) consist of land in drainageway channels where the construction of buildings would create obstructions to drainage or hazard to life or property. The FW District includes land in the floodway as defined by FEMA. It is intended that areas located in the FW District primarily will be used for private or public open space in accordance with the standards in Section 24006.5 of these regulations.
- b. **Permitted Uses.** In District FW, any use allowed in the underlying zoning district is permitted if none of these uses, when acting alone or in combination with other uses, will increase the regulatory flood elevation or in any way affect the free flow of floodwater. This effect of any allowed use must be documented by appropriate engineering studies if required by the Director.
- c. **Identification of Boundaries.** The boundary limits of the FW District shall be identified and determined by the Flood Boundary and Floodway Maps and the Flood Insurance Rate Maps for the unincorporated area of Jackson County, Missouri published by the United States Department of Housing and Urban Development, Federal Insurance Administration dated September 29, 1978 as amended.
- d. **Minimum Standards.** No filling or dumping shall be allowed which will increase flood hazard heights beyond existing limits or adversely affect the hydraulic efficiency or capacity of the floodway unless that filling or dumping is compensated by excavation in, or contiguous to, the filled area and does not adversely affect the hydraulic characteristics of the floodway. The term filling as used in this section shall mean the placement of structures, whether temporary or permanent, materials or other matter in which would obstruct the floodway or decrease its capacity.

#### **24004.15 FLOODWAY FRINGE OVERLAY DISTRICT (FF)**

- a. **Purpose.** The areas designated in the Floodway Fringe Overlay District (FF) consist of land outside the floodway but located where there is a one percent or greater chance of inundation in any given year. It is intended that areas located in the FF District primarily will be used for private or public open space in accordance with the standards in Section 24006.5 of these regulations.
- b. **Permitted Uses.** In the FF District, any use allowed in the underlying zoning district is permitted if none of these uses will adversely affect the capacity of channels or floodways of any tributary to the main stream, drainage ditch or any other drainage facility or system.
- c. **Identification of Boundaries.** The boundary limits of FF District shall be identified and determined by the Flood Boundary and Floodway Maps and the Flood Insurance Rate Maps for the unincorporated area of Jackson County, Missouri published by the United States Department of Housing and Urban Development, Federal Insurance Administration, dated September 9, 1978 as amended.
- d. **Minimum Standards.**
  - 1. Construction of Structures. All residential and non-residential structures shall be constructed on fill so that the first floor and basement floor are one (1) foot above the regulatory flood protection elevation.

2. Fill. The fill shall at no point be lower than one (1) foot above the regulatory flood protection elevation for the particular area and shall extend at that elevation at least fifteen (15) feet beyond the limits of any structure erected on the fill.
3. Certification of Elevation. When elevation is used as a measure of flood protection, Certification as to the elevation of the lowest floor of a structure after its completion shall be provided to the Director by a qualified individual as defined by FEMA.
4. Nonresidential Structures. Nonresidential structures may be floodproofed to or above the regulatory flood elevation. When floodproofing is utilized for nonresidential structures, the Director shall be presented certification of the floodproofing measures from a qualified individual as defined by FEMA.
5. Residences. All residences permitted in the FF District, whether site built or manufactured, shall be permanently anchored to permanent foundation.
6. Utility and Sanitary Facilities. All utility and sanitary facilities shall be elevated or floodproofed up to regulatory flood protection elevation so that those facilities below the regulatory flood protection elevation are water tight with walls substantially impermeable to water.
7. Structural Components. The structural components of the utility and sanitary facilities shall have the capacity to resist hydrostatic and hydrodynamic loads and the effects of buoyancy.
8. Certification. Utilities and pipelines will be permitted on submission to the Director a letter certifying that all facilities will be below grade and that they will in no way affect the free flow of floodwater.
9. Changes in Topography. No changes in topography, such as by filling or excavation, will be allowed if these changes will result in a concentration of the natural flow of water so as to cause or increase drainage problems. The grading of any area shall be done in a manner to maintain proper drainage.
10. Water Supply Systems. All water supply systems must be designed to eliminate infiltration of flood waters into the system and discharges from the system into flood waters.
11. On-Site Waste Disposal Systems. All on-site waste disposal systems must be located or designed so as to eliminate contamination during or subsequent to flooding.

#### **24004.16**      **SNI-A-BAR INUNDATION OVERLAY DISTRICT (SBI)**

- a. **Purpose**. The area designated as the Sni-a-bar Inundation Overlay District (SBI) consists of land in the drainageway where the construction of buildings would create obstructions during a hydrological event that would cause a hazard to life or property. It is intended that areas located in the SBI District primarily will be used for private or public open space in accordance with the standards in section 24006.5 of these regulations.
- b. **Permitted Uses**. In the SBI District, any use allowed in the underlying zoning district is permitted so long as the use will not adversely affect the capacity of channels or floodways of any tributary to the main stream, drainage ditch, or any other drainage facility or system.

**c. Identification of Boundaries.** The boundary limits of the SBI District shall be identified and determined by the Sni-a-bar Inundation Map on file in the office of the Director.

**d. Minimum Standards.**

1. Construction of Structures. All residential and non-residential structures shall be constructed on fill so that the first floor and basement floor are three (3) feet above the inundation protection elevation.
2. Fill. The fill shall at no point be less than three feet (3') above the inundation protection elevation for the particular area and shall extend at that elevation at least fifteen feet (15') beyond the limits of any structure erected on the fill.
3. Elevation Certificates. When elevation is used as a measure of inundation, an elevation certificate of the lowest floor of a structure shall be provided to the Director by a Missouri Registered Engineer, both prior to construction and after its completion.
4. No Rise Certification. When development occurs in an inundation or FEMA designated flood zone, certification will be required prior to any development. The No Rise Certification shall be supported with a Hydrological Analysis incorporating an Inundation Study as required by the MoDNR Dam Safety Program prepared by a Missouri Registered Engineer. The Director may require the analysis area include the entire inundation area, watershed or sub-watershed.
5. Residences. All residences permitted in the SBI District, whether site built or manufactured, shall be permanently anchored to a permanent foundation and in accordance with Jackson County Building Code regulations.
6. Utility and Sanitary Facilities. All utility and sanitary facilities shall be elevated or floodproofed up to inundation protection elevation so that those facilities below the inundation protection elevation are water tight with walls substantially impermeable to water.
7. Structural Components. The structural components of the utility and sanitary facilities shall have the capacity to resist hydrostatic and hydrodynamic loads and the effects of buoyancy.
8. Certification. Utilities and pipelines will be permitted, upon submission to the Director of a letter certifying that all facilities will be below grade and that they will in no way affect the free flow of water in case of a hydrological event.
9. Changes in Topography. No change in topography, such as by filling or excavation, will be allowed if that change will result in a concentration of the natural flow of water so as to cause or increase drainage problems. The grading of any area shall be done in a manner to maintain proper drainage.
10. Water Supply Systems. All water supply systems must be designed to eliminate infiltration of flood waters into the system and discharges from the system into flood waters.
11. On-Site Waste Disposal Systems. Any on-site waste disposal systems must be located or designed so as to eliminate contamination during or subsequent to a hydrological

event.

## 24006.5 STORMWATER MANAGEMENT

a. **Purpose.** The purposes of these stormwater management provisions are to protect life and property from reasonably preventable flood hazards; protect the quality of surface waters from contamination, and to minimize loss of valuable wildlife by preserving habitat and linkages between wildlife habitat areas.

b. **Design Objectives.**

1. In rural, suburban and, where appropriate, urban areas, natural drainageways shall be retained to minimize interference with floodwater conveyance, floodwater storage, wetlands, and both surface and subsurface hydrology. The Director may approve modifications to natural channels that are consistent with the other provisions of the UDC.
2. Development design should reduce the exposure of people and property to flood hazards and nuisances associated with inadequate management of stormwater runoff.
3. Erosion and sedimentation problems should be minimized to conserve/enhance water quality and conserve valuable top soil.
4. Development design should accommodate large floods and smaller, more frequent floods along major and minor waterways.
5. Stormwater systems should be designed to minimize future operational and maintenance expenses.
6. Stormwater systems should be designed to reduce the exposure of streets utilities and other public facilities to damage from stormwater.
7. Development design should minimize need for rescue and relief efforts from floods, and provide sufficient access for such efforts when needed.

c. **Stormwater System Design Requirements.**

1. All improvements shall be designed in accordance with the most current version in Division V Design Criteria listed in Section 5600 of the standards established by the Kansas City Metropolitan Chapter of the American Public Works Association (APWA Standards), except as modified in this section. All stormwater structures shall comply with the most current version in Section 5700 of the APWA Standards. Construction and materials specifications shall comply with Division II of the APWA Standards, except as modified by the UDC.
2. All stormwater pipe shall be rubber or neoprene gasketed. Drainage structures shall be precast or cast in place concrete in accordance with Jackson County Standard Details sheets, with eccentric cones for manholes and steps located under manhole access.
3. In urban development tiers as identified in the Master Plan, and in suburban tiers where

average lot size is less than three (3) acres, the following exceptions shall apply:

- (a.) The provisions of Section 5601.5.A.1. of the APWA Standards shall be modified so that channelized stormwater flows are only required to be piped if the flow from a 10-year storm event can be conducted under gravity flow conditions by a 48-inch or narrower diameter reinforced concrete pipe at a one (1) percent grade.
- (b) The provisions of Section 5605.1.B of the APWA Standards shall be modified so that drainage easements are not automatically required for open stormwater conveyances. However, those areas which would be required to be located within easements according to the APWA Standards, shall be designated as "no-build zone" on the proposed development plat or plan.
- (c) The provisions of Section 5606 of the APWA Standards shall be modified to eliminate the requirement for dedication of detention and retention facilities. At the time of development approval, the applicant shall obtain the Director's approval of a plan for future maintenance of any such facilities required for the proposed development.

4. In rural development tiers as identified in the Master Plan, and in suburban tiers where average lot size is greater than two (2) acres, the following exceptions shall apply:

- (a) The provisions of Section 5601.5.A.1. of the APWA Standards shall be modified so that enclosed stormwater conveyance systems are not required except under streets, driveways and other vehicular or pedestrian areas.
- (b) The provisions of Section 5605.1.B. of the APWA Standards shall be modified so that drainage easements are not automatically required for open stormwater conveyances. However, those areas which would be required to be located within easements according to the APWA Standards, shall be designated as "no-build zone" on the proposed development plat or plan.
- (c) The provisions of Section 5606 of the APWA Standards shall be modified to eliminate the requirement for detention and retention facilities.

**d. Drainage Study Required.** A drainage study, sealed by a professional engineer, shall be required prior to approval of construction plans or issuance of a building permit for any development other than a single family dwelling, a two-family dwelling or farm structure. The drainage study shall include information necessary to demonstrate compliance with the APWA Standards as modified by this section and applicable DNR, U.S. Army Corps of Engineers or FEMA requirements. All applications for single family permits shall clearly show the boundaries of the 100-year floodplain, if applicable, any channelized water conveyance draining an area of ten (10) acres or larger, and sufficient grading information to illustrate the direction of storm water drainage. The Drainage Study shall be supported by a Hydrological Analysis, prepared by a Missouri Registered Engineer. The Director may require the analysis area include the entire inundation area, watershed, or sub-watershed.

All building permit applications within the Sni-a-bar Inundation (SBI) Overlay District shall be supported by a Hydrological Analysis incorporating an Inundation Study as required by MoDNR Dam Safety Program, prepared by a Missouri Registered Engineer. The Director may require that the analysis area include the entire inundation area, watershed, or sub-watershed.

e. **Stormwater Facility Management.**

1. Stormwater facilities shall be maintained to prevent retention of water on site except in designated retention ponds.
2. Landscaping and storage shall be maintained to prevent soil erosion blockage of drainageways.
3. Property owners are responsible for removal of debris from stormwater conveyances and facilities on their property.
4. No fence, berm or structure shall interfere with drainage patterns unless approved by the Director or part of a Soil Conservation Service project.

f. **Floodplain/Inundation Management.**

1. Scope of Floodplain/Inundation Management. The provisions of this sub-section shall apply to all unincorporated areas of Jackson County identified on the Flood Insurance Rate Maps (FIRM) or Floodway Maps as promulgated by the Federal Emergency Management Agency (FEMA) and the Sni-a-bar Inundation Map and determined to be within the FW [and], FF, and SBI districts as defined in this unified development code.
2. Disclaimer of Liability. The provisions of this sub-section do not imply or otherwise warrant that areas outside of the FW [and], FF, and SBI districts or land uses permitted in said districts will be free from flooding or flood damage nor does this code create liability on the part of Jackson County, its officers or employees for any flood damages that may result from reliance on these floodplain/inundation management provisions, FEMA or any regulations or administrative decision made hereunder.
3. Permit Required. In all areas covered by these floodplain/inundation management provisions, no development or construction, including manufactured homes, located, extended, converted, structurally altered or otherwise shall be permitted except upon County issuance of a permit to develop granted under the procedures stated herein:
  - (a) No person, firm or corporation shall initiate any development, construction or substantial improvement or cause the same to be done within the FW [or], FF, or SBI districts without first obtaining a separate permit for development under these floodplain/inundation management provisions and in compliance with FEMA or Missouri Department of Natural Resources Dam Safety regulations.
  - (b) Application for a permit for development, construction or substantial improvement within the FW [or], FF or SBI districts shall be made in writing on a form provided by the Director.
4. Residences within the FW or FF Districts. All residences to be placed or substantially improved within the FW or FF districts shall be elevated on a permanent foundation such that the lowest floor of the manufactured home is at least one foot above base flood elevation and shall be permanently anchored to said foundation.
5. Residences within the SBI District. All residences to be placed or substantially improved within the SBI District shall be elevated on a permanent foundation such that the residence is at least three (3) feet above the inundation protection elevation and



anchored to said foundation.

6. Preventing Water Accumulation. Electrical, heating, ventilation, plumbing, and air-conditioning equipment and other service facilities shall be designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding or hydrological event.
7. Automatic Equalization of Hydrostatic Flood Forces. For all newconstruction and substantial improvements, fully enclosed areas below the lowest floor that are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwater. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or must meet or exceed the following minimum criteria: A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided. The bottom of all openings shall be no higher than one foot above grade in the FW or FF Districts and three feet above the inundation protection elevation in the SBI District. Openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of floodwater.
8. Enforcement Officer. The Director is hereby designated as the Enforcement Officer for compliance under these floodplain/inundation management provisions and FEMA regulations.
9. Duties of Enforcement Officer. The duties of the Enforcement Officer shall include, but not be limited, to the following:
  - (a) Review of all applications for development permits to require that sites are reasonably safe from flooding/inundation and that the permit requirements of this section have been satisfied as well as the other requirements of these regulations.
  - (b) Review of all permits for proposed developments to confirm that all necessary permits have been obtained from those Federal, state or local governmental agencies from which prior approval is required.
  - (c) Notify adjacent communities and the Missouri Department of Natural Resources prior to any alteration or relocation of a watercourse, and to provide evidence of such notification or FEMA.
  - (d) Require that maintenance is provided within the altered or relocated portion of said watercourse so that the flood carrying capacity is not diminished.
  - (e) Require verification, recording and updating of records of the actual elevation (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved structures, using reference marks ("RM") established by FEMA.
  - (f) Require verification, recording and updating of records of the actual elevation (in relation to mean sea level) using reference marks ("RM") established by FEMA, to which the new or substantially improved structures have been floodproofed and certified by a qualified individual as defined by FEMA when floodproofing as defined herein is utilized for a particular structure.

- (g) Take any actions necessary to assure compliance with County and FEA regulations in the granting or denial of applications for any permits in the FW, FF and SBI districts.
  - (h) Require that all proposals for subdivisions and other new development (including manufactured home subdivisions or parks) are consistent with the need to minimize floor damage and that:
    - (i) all public utilities and facilities such as sewer, gas electrical, and water systems are located, elevated and constructed to minimize or eliminate damage from floods or an hydrological event; and
    - (ii) adequate drainage is provided for the purpose of reducing exposure to flood or inundation hazards; and
    - (iii) regulatory flood and inundation protection elevations utilizing FEMA "RM" are included in all proposals for all development.
- 10. Floodplain/Inundation Permit Application Requirements. All written applications for development or substantial improvement in said districts shall:
  - (a) Identify and describe the development to be covered by the permit;
  - (b) Describe the land on which the proposed development is to be done by lot, block, tract and house and street address, or similar description that will readily identify and definitely locate the proposed building or development;
  - (c) Indicate the use or occupancy for which the proposed development is intended;
  - (d) Be accompanied by plans and specifications for proposed construction;
  - (e) Be signed by the proposed permittee or his authorized agent who may be required to submit evidence to indicate such authority
  - (f) Provide such other information as reasonably may be required by the Enforcement Officer or as required from the applicant under any part of these regulations, including, but not limited, to evidence of compliance with FEMA regulations or guidelines for anchoring to prevent flotation and lateral movement, the use of flood resistant materials and utility equipment and construction methods which minimize flood damage.
- 11. Floodplain Considerations in Granting Variances. The Board of Zoning Adjustment shall hear and decide appeals and requests for variances from the requirements of this sub-section. In passing upon such applications, the Board shall consider all technical evaluations, all relevant factors, standards specified in other sections of these 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, inundation or erosion damage;
  - (c) the susceptibility of the proposed land use to flood damage or inundation and the effect of such damage on the individual owner;
  - (d) the importance of the services provided by the proposed land use to the community;

- (e) the necessity to the proposed land use of a waterfront location, where applicable;
- (f) the availability of alternative locations, not subject to flooding, inundation or erosion damage, for the proposed land use;
- (g) the compatibility of the proposed land use with existing and anticipated development;
- (h) the relationship of the proposed land use to the comprehensive plan and floodplain /inundation management program for that area;
- (i) the safety of access to the property in times of flood/inundation for ordinance and emergency vehicles;
- (j) the expected heights, velocity, duration, rate of rise and sediment transport of the flood waters and the effects of wave action, if applicable, expected at the site; and
- (k) the costs of providing governmental services during and after flood or inundation conditions including maintenance and repair of public utilities and facilities such as sewer, gas, electrical, and water systems, and streets and bridges.

Effective Date: This Ordinance shall be effective immediately upon its passage by the County Executive.

APPROVED AS TO FORM:

\_\_\_\_\_  
Chief Deputy County Counselor

\_\_\_\_\_  
County Counselor

I hereby certify that the attached Ordinance, Ordinance # 3724 introduced on December 5, 2005, was duly passed on \_\_\_\_\_ January 9 \_\_\_\_\_, 2005 by the Jackson County Legislature. The votes thereon were as follows:

Yeas \_\_\_\_\_ 9 \_\_\_\_\_

Nays \_\_\_\_\_ 0 \_\_\_\_\_

Abstaining \_\_\_\_\_ 0 \_\_\_\_\_

Absent \_\_\_\_\_ 0 \_\_\_\_\_

This Ordinance is hereby transmitted to the County Executive for her signature.

\_\_\_\_\_  
Date

\_\_\_\_\_  
Mary Jo Spino, Clerk of  
Legislature

I hereby approve the attached Ordinance # 3724.

\_\_\_\_\_

\_\_\_\_\_

Date

County Executive

Katheryn

J.

Shields,