



WOODBURY COUNTY BOARD OF ADJUSTMENT

Monday, May 3, 2021 at 6:00 PM

The Board of Adjustment will hold a public meeting on **Monday, May 3, 2021 at 6:00 PM** in the 1st Floor Board of Supervisor's Meeting Room, Woodbury County Courthouse, 620 Douglas Street, Sioux City, IA. Please use the 7th St. entrance. Public access to the conversation of the meeting will also be made available during the meeting by telephone. Persons wanting to participate in the public meeting may attend in person or call: **(712) 454-1133** and enter the **Conference ID: 847 415 831#** during the meeting to listen or comment.

AGENDA	
1	CALL TO ORDER
2	ROLL CALL
3	PUBLIC COMMENT ON MATTERS NOT ON THE AGENDA
4	APPROVAL OF MINUTES: January 4, 2021
5	ITEM(S) OF BUSINESS
»	REVIEW OF DRAFT COMMERCIAL WIND ENERGY ORDINANCE PROPOSAL
»	REVIEW OF DRAFT FLOODPLAIN MANAGEMENT ORDINANCE PROPOSAL
6	PUBLIC COMMENT ON MATTERS NOT ON THE AGENDA
7	COMMISSIONER COMMENT OR INQUIRY
8	ADJOURN

Minutes - Woodbury County Board of Adjustment Meeting – January 4, 2021

The Board of Adjustment meeting convened on the 4th of January 2021 at 6:00 PM via teleconference due to the social distancing recommendations as a result of the COVID-19 virus.

BA Members Present (Telephone): Tom Thiesen, Ashley Christensen, Bob Brouillette, Pamela Clark, Daniel Hair
County Staff Present (Board Room): David Gleiser, Dan Priestley
Public Present (Telephone): Dustin Stieneke

Call to Order

Chair Tom Thiesen formally called the meeting to order at 6:00 PM.

Public Comment on Matters Not on the Agenda

No public comment for non-agenda items.

Welcome – Introduction of New Members

Pamela Clark and Daniel Hair offered introductions as new members of the Board of Adjustment.

Approval of Minutes

The October 5, 2020 minutes were approved. Motion by Brouillette to approve; second by Christensen. Motion passed 5-0.

Election of Chair and Vice Chair

Motion by Brouillette to elect Thomas Thiesen as Chair for 2021; second by Pamela Clark. Motion passed 5-0. Motion by Thomas Thiesen to elect Ashley Christensen Vice Chair for 2021; second by Brouillette. Motion passed 5-0.

Variance Request – Lot Size in the Limited Industrial Zoning District

Priestley delivered the staff report for Dustin Joseph Stieneke's variance application to allow for his 1.59 acre lot to be used in the Limited Industrial Zoning District because the minimum lot size as enumerated in the Zoning Ordinance's Zoning District Dimensional Standards requires a minimum of 3 acres excluding the right-of-way. Stieneke wishes to operate his trucking business, Silver Steer Trucking at this location addressed at 1548 Hwy 31, Correctionville, IA 51016. The property is identified as Parcel #894235100010 and located in the SE ¼ of the NW ¼ of Section 35, T89N R42W (Union Township). Mr. Stieneke has also filed a concurrent Zoning Ordinance Map Amendment (rezone) application with the Zoning Commission and Board of Supervisors with the request to rezone from the Agricultural Preservation (AP) Zoning District to the (LI) Zoning District. The Zoning Commission reviewed the request on December 28 and voted unanimously to recommend approval to the Board of Supervisors who are scheduled to receive and review the proposal on January 12, January 19, and January 26. Both the rezone application and variance application are contingent upon one another. It is the recommendation of staff to approve the variance. Dustin Stieneke addressed the board stating that that he did attempt to buy additional acres by reaching out to the abutting property owner. CED Director Gleiser stated that Stieneke has provided a sworn affidavit stating that he would make his best efforts to try to obtain the minimum acres while his property is still in unincorporated Woodbury County. Gleiser also clarified that the letter of support sent to the Board of Adjustment by Mayor Heilman was approved by the Correctionville City Council. Thiesen inquired about the number of trucks that would be located on the premises. Stieneke stated that it would consist of four trucks and four trailers. Thiesen asked about what types of loads his business hauls. Stieneke replied that they haul feed, meal, rock, and aggregated sand. Thiesen inquired whether there would be enough room available on the property. Stieneke confirmed that the shop would hold six trucks. Gleiser stated that the board reviews variances on a case-by-case basis. It is important to be cognizant that board actions could set a precedent for similar types of requests. Staff is confident about the recommendation after review of the county comprehensive plan future land use map and changes that have taken place over the last five years in the area. The property is located on a paved highway and there are no issues with access, dust, and the increase of traffic. Gleiser also discussed Correctionville's comparative Light Industrial Zoning District and its compatibility with the county's Limited Industrial Zoning District if they were to annex. A motion was made by Clark to close the public hearing; second by Brouillette. Motion passed 5-0. A motion was made by Brouillette to approve the variance request for the reduced lot size of 1.59 acres in the Limited Industrial Zoning District which requires 3 acres; Second by Christensen; Motion passed 5-0.

Public Comment on Matters Not on the Agenda

Gleiser stated that the board will probably continue to meet electronically based on local public health guidelines and recommendations. Staff will work with the chair and vice chair month to month on a case-by-case basis to determine the type of meeting. If there is an interest to meet in person, staff can find space to meet the governor's social distancing guidelines.

Commissioner Comment or Inquiry

None

Adjourn

Motion by Clark to adjourn; second by Hair. Motion passed 5-0. Meeting adjourned at 6:40 PM.

Draft Review

Woodbury County Commercial Wind Energy Conversion Systems Ordinance

Iowa is a Wind Energy Leader

- Iowa is a national leader in wind energy, producing the highest percentage of electricity by wind of any state (60%).
- Iowa now generates more electricity from wind than any other single source.

Wind Energy is Good for Iowa's Economy and Job Market

- The wind industry directly employed 3,909 Iowans in 2019, including manufacturing, operations and maintenance, and engineering professionals.
- Wind turbines generate \$78 million annually in lease payments to landowners in Iowa.
- Google, Apple, and Facebook are among the companies that have identified the availability of low-cost Iowa wind energy as one of the reasons to locate new facilities in Iowa.
- Three examples of 2016 county property tax revenue from wind: Adair County received \$5.9M, Cass County received \$2.7M, and Franklin County received \$3M. [13] This revenue supported schools, roads and bridges, hospitals, and more.

Wind Energy is Affordable Energy

- New wind energy in Iowa is the cheapest new source of electricity generation, even without incentives, and is cheaper than new natural gas, nuclear, or coal.
- Iowa's electric rates remain below the national average. For example, Iowa's electricity rates are 30 percent lower than Wisconsin's electricity rates. Wisconsin gets only two percent of its energy from wind (compared to 34 percent for Iowa).

Wind Energy is Reliable and Stable

- Effectively integrating renewable energy while maintaining grid reliability is already being achieved.
- The nation's major grid operators have found that wind and solar energy need very little backup power.

Potential for More Wind Growth

- Iowa installed more wind energy capacity in 2019 than in any previous year, at 1.7 GW. [23] Iowa continues to be capable of significant year-over-year growth.
- Iowa has enormous potential to add more wind generation, with estimates ranging from 280 GW to 571 GW depending on factors like technology and land area types used.

TOP STORY
Wind turbine project rising

Wind farm with ties to Google boosts Cherokee County's economy, tax rolls

Mason Dockter Jul 20, 2019 Updated Jul 22, 2019

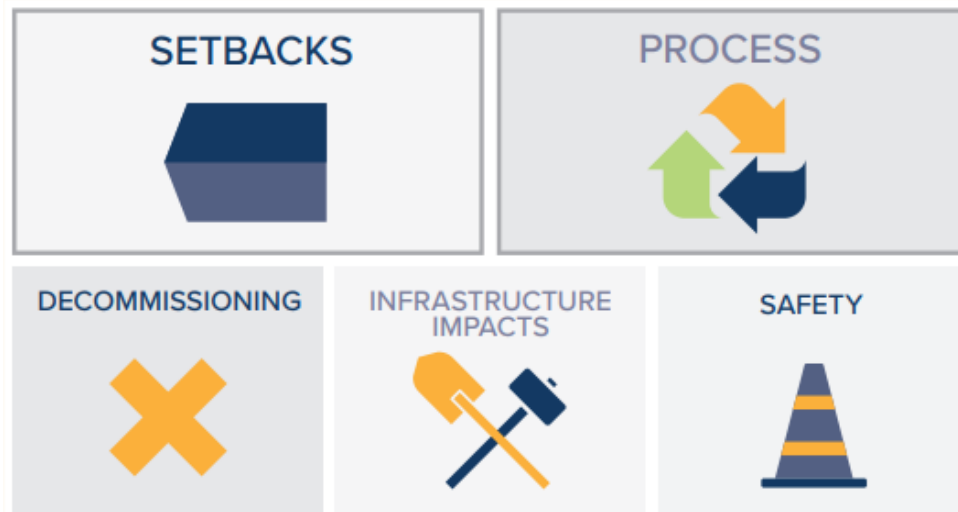
NEWS LINK


200 MW wind farm planned for Cherokee County 88 turbines north of Marcus to be online by December 2019

Successful County Wind Siting Practices in Iowa



BEST PRACTICES OF WIND SITING



- 
Setbacks. Counties should ensure that setbacks balance multiple interests and support cost-effective wind development. We recommend setbacks from residential dwellings of between 1,000 feet and 1,250 feet at the most. Setbacks for property lines and other rights of way should be approximately 1.1 times the turbine height, or about 600 feet. Counties can consider longer setbacks for a small number of other areas, such as natural resource areas. Counties should provide for waivers for voluntary reductions in setbacks.

County staff propose the following setback distances. (p. 8)

<u>Protected Area</u>	<u>Set Back Requirement</u>
Adjacent Property Lines	110% of total height
Occupied Residence	110% of total height
Unoccupied Non-Residential Building	110% of total height
Confinement Feeding Operation Building	110% of total height
Public Road Right-of-Way	600 feet or 110% of total height (whichever is greater)
Public Drainage District Right-of-Way	
Open Ditch	300 feet
Tile (centerline)	100 feet
Public Conservation Area	600 feet or 110% of total height (whichever is greater)
Cemetery	600 feet
City Limits	600 feet
Airports (public and private)	FAA consultation and determination required



- **Application and approval process.** We recommend that counties establish a clear and well-defined application process and a set of known application requirements. Wind turbines should be treated either as a permitted use or as a conditional use in established zoning districts. If the application and associated wind development meet the clearly identified conditions, the application and project should be approved.

County staff propose C-WECS to be listed as a Conditional Use only in established zoning districts, heard and decided on by the Board of Supervisors. (p. 1)



- **Decommissioning.** Counties may require a decommissioning plan to support potential decommissioning as part of the application and approval process.

County staff propose a thorough discontinuance/decommissioning section to address any WECS that is considered a discontinued use. (p. 9)



- **Infrastructure.** Counties may require a pre-construction plan for handling potential impacts to roads and other infrastructure from wind project construction as well as a post-construction review to identify impacts and provide for repairs.

County staff propose a thorough ancillary agreements and procedures section which includes detailed requirements related to infrastructure impacts (pre/post construction). (p. 10)



- **Safety.** There is a basic set of minimal safety standards regarding wind projects, which make sense for counties to include in an ordinance.

County staff propose a thorough ancillary agreements and procedures section which includes detailed requirements related to safety, financial security, emergency response plans, and relevant national electric and state electric building codes. (p. 10)

Please Provide Feedback On...

Conditional Use or Allowed/Permitted Use?

If it's an Allowed/Permitted Use, applicants would work directly with CED staff the same as they would for a normal building permit. No required notice, no public hearing, no review or decision from ZC, BoA, or BoS.

If it's a Conditional Use, who should hear and decide on project applications? The Board of Adjustment or Board of Supervisors?

Do you have any objections or suggestions to the recommended setbacks on p. 8 being proposed by county staff?

WOODBURY COUNTY, IOWA
ORDINANCE # _____

**AN ORDINANCE REGULATING COMMERCIAL
WIND ENERGY CONVERSION SYSTEMS
IN UNINCORPORATED WOODBURY COUNTY**

WHEREAS, it is deemed advisable and recommended by the Woodbury County Board of Supervisors to create and enforce an ordinance in Woodbury County addressing the site plan review and application approval process for the construction and ongoing maintenance of large-scale commercial wind energy conversion systems proposed to be erected in unincorporated Woodbury County; and

WHEREAS, the Woodbury County Board of Supervisors wish to adopt and enforce this Commercial Wind Energy Conversion Systems Ordinance to better promote the County’s comprehensive plan and its economic development goal of fully exploring alternative renewable energy sources, particularly wind generation facilities both as a contribution to the total energy needs of the country and as a new source of income for property owners; and

WHEREAS, this Commercial Wind Energy Conversion Systems Ordinance is a separate county ordinance and shall be a “stand alone” enactment authorized under County Home Rule under Iowa Code Section 331.302(1). These provisions only relate to the application for a wind energy conversion systems project with a total nameplate generating capacity of more than 100kW.

NOW, THEREFORE, BE IT HEREBY RESOLVED, that this Commercial Wind Energy Conversions Systems Ordinance is hereby adopted within Woodbury County, Iowa and includes the following provisions:

Section 1 - Purpose

The purpose of this Ordinance is to establish guidelines for the effective and efficient use of large-scale Commercial Wind Energy Conversion Systems (C-WECS) projects by regulating and requiring a permit for the siting, design, construction, operation, and decommissioning of these wind energy conversion systems (WECS) to protect the public health, safety, and general welfare of the County’s residents and businesses. The requirements of this Ordinance shall apply to all C-WECS after the effective date of this Ordinance.

Because of the significant, long-lasting impacts on the County’s residents and infrastructure resulting from large-scale C-WECS projects, the Woodbury County Board of Supervisors believes it is in the public’s best interest that the Supervisors retain the final authority over the issuance of any permit for large-scale C-WECS projects as a Conditional Use and shall adhere to all the standards, procedures and fees as set forth in this Ordinance.

Section 2 – Jurisdiction

This Ordinance is adopted by the Woodbury County Board of Supervisors and governs all lands within the unincorporated areas of Woodbury County, Iowa. This Ordinance and its provisions shall not apply to those properties or projects occurring within the incorporated cities of Woodbury County.

Section 3 – Definitions

For use in this Ordinance, certain terms or words used herein shall be interpreted or defined as follows:

Wind Energy Conversion System (WECS) shall mean any device, such as a wind charger or wind turbine, which converts the kinetic energy of wind to a form of usable electric energy.

Commercial Wind Energy Conversion Systems (C-WECS) A large-scale WECS or a group of WECS in the same location with a generating nameplate capacity of 100 kW or greater and is used for production of electric power to be interconnected into the local utility electrical grid and built to produce energy primarily for on-grid utility customers located off the property. Individual turbines are usually interconnected to a power collection system and then connected to an existing or proposed high voltage transmission system. C-WECS projects may consist of a single WECS or multiple wind turbines, and cover small areas to extended areas of many square miles.

Applicant shall mean the person or entity submitting the application under this Ordinance, which is normally expected to be the owner or operator of a WECS, or the owner of the C-WECS development project.

Components shall mean all the physical facilities comprising a WECS; including turbines (i.e. – the tower, nacelle, hub, motor, and blades), turbine foundations, transformers, crane pads, feeder lines, and any accessory buildings and equipment. Components shall include any substations that are constructed in conjunction with a C-WECS project.

Confinement Feeding Operation Building shall have the same meaning as found in Iowa Code §459.102(15).

Feeder Line shall mean any above or below-ground line that carries electrical power from one or more turbines.

Meteorological (“MET”) Tower shall mean a tower which is erected primarily to measure wind speed and directions, plus other atmospheric/weather data relevant to siting and operating a WECS. Meteorological towers do not include towers and equipment used by airports, the Iowa Department of Transportation, or other applications to monitor weather conditions.

Non-Participating Landowner shall mean any landowner not under agreement with the owner or operator of the WECS.

Occupied Non-Residential Building shall mean any building (other than a residence) that is regularly occupied by humans, and that is open to the public, sells goods or services, or a public, religious, or other non-profit institution.

Occupied Residence shall mean a building designed for, and occupied on a regular basis as an abode.

Operator shall mean the entity responsible for the day-to-day operation and maintenance of the WECS.

Owner shall mean the entity or entities with an interest in the WECS, including their respective successors and assigns. Owner does not mean (1) the property owner from whom a lease, easement or other property rights are acquired for locating the WECS (unless the property owner has an equity interest in the WECS; or (2) any person holding a security interest in the WECS solely to secure an extension of credit, or a person foreclosing on such security interest provided that after foreclosure, such person seeks to sell the WECS at the earliest practical date.

Participating Landowner shall mean a landowner under lease, easement or other property agreements with the owner or operator of the WECS.

Professional Engineer shall mean a qualified individual who is licensed in the State of Iowa as a professional engineer.

Project Area shall mean the geographic area encompassing all components of a C-WECS project.

Property Line shall mean the legal boundary between separately-owned real estate parcels, and between privately-owned parcels and publicly-owned land or public right-of-way.

Public Conservation Areas shall mean land owned by County, State or Federal agencies and managed for conservation/preservation purposes, including but not limited to Wildlife Management Areas, Conservation Areas, Parks, Preserves, Wildlife Refuges, and Waterfowl Production Areas. For purposes of this Ordinance, Public Conservation Areas also include land owned by non-profit conservation organizations and other privately-owned lands upon which permanent conservation easements have been granted to public agencies or non-profit conservation organizations. Public Conservation Areas do not include land enrolled in the Conservation Reserve Program.

Rotor Diameter shall mean the diameter of the circle described by the turbine's moving rotor blades.

Setback shall mean the minimum required distance from a certain object, structure or point to the center point of the foundation of the wind turbine at the natural ground level.

Structure shall mean anything constructed or erected on the ground or attached to the ground, including but not limited to antennas, buildings, sheds, cabins, residences, signs, storage tanks, towers, wind turbines, and other similar objects.

Substation shall mean the apparatus that connects the electrical connection system of the WECS and increases the voltage for connection with the utility's, transmission owner's or WECS owner's transmission lines.

Tower shall mean the vertical structure that supports the electrical generator, rotor blades, or meteorological equipment.

Tower Height shall mean the total height of a turbine, exclusive of the rotor blades, as measured from the ground to the tip of the blade when fully extended.

Transmission Line shall mean those electrical power lines that carry voltages of at least 69,000 volts (69 kV) and are primarily used to carry electrical energy over medium to long distances rather than directly interconnecting and supplying electrical energy to customers.

Turbine shall mean any piece of electrical generating equipment that converts the kinetic energy of blowing wind into electrical energy using airfoils, blades, or similar devices to capture the wind.

Occupied Residence shall mean a building designed for, and occupied on a regular basis as an abode.

Section 4 – Applicability

It shall be unlawful to construct, erect, install, alter or locate any WECS within unincorporated Woodbury County, without first obtaining a C-WECS permit from the Woodbury County Board of Supervisors as outlined in this Ordinance.

1. No application for a C-WECS permit shall be granted without first submitting all required information, obtaining necessary permits, certifications and documentation, and paying all associated fees to the County.

Section 5 – C-WECS Permit Application Review, Amendment, and Approval Process

1. **General.** Before any construction activities related to a C-WECS project can begin in unincorporated Woodbury County, a C-WECS permit must be issued by the Woodbury County Board of Supervisors. For purposes of this paragraph, the installation of MET towers and access roads associated with a C-WECS project shall not be deemed construction activities requiring a C-WECS permit; provided that any such tower or road must be installed in compliance with all other applicable county ordinances and regulations.

2. **Application.** The Woodbury County Community and Economic Development (CED) Department will supply a permit application form to be used by any person seeking to construct a C-WECS project. Each project shall require a separate application. The application shall contain:
- A. The name, address, W-9 and EIN of the applicant, as well as the proposed owners or operators of the project, including the contact information (name, address, telephone and email) of their authorized representatives. The application shall designate the entity who will be the permit holder of the C-WECS permit.
 - B. A Certified Abstractor's list of the names and addresses of all property owners (i) located within the project area, and (ii) located within 5,280 feet of any turbine in the project.
 - C. A final development plan for the project, which shall contain aerial photographs of the entire proposed project area, showing the approximate proposed location of the turbines, private access roads, feeder lines, substations and all other components of the project. The plan shall show property lines and setback distances under Section 6, as well as all public roads and public drainage district facilities (i.e. – ditches and underground tiles) in the project area. The plan shall also identify any other turbines, communication antennae, and airports (including private airstrips) located within five (5) miles of the project area; and all lakes, permanent water courses and Public Conservation Areas within three (3) miles of the project area boundaries. In providing the above information, the plan shall use a GPS coordinate system that is compatible with the County's geographical information and data systems. The plan shall also include a mailing address for the owner of each communication antennae identified.
 - D. Project details, including the name of the project, anticipated number, generating capacity, tower height, and rotor diameter of the turbines. The final number, generating capacity, tower height, and rotor diameter must be provided in the final development plan.
 - E. Documentation of applicant's legal control over the private property necessary for the project, signed by the property owner. Such legal control must vest in the permit holder of the C-WECS permit at the time of its issuance.
 - F. A description of the public roads anticipated to be used during all phases of construction, as well as for access to material storage sites and staging areas. As set forth in Section 6, before construction commences on a project, all public road and public drainage district crossings must be provided to the County Engineer, and approved for compliance with the County's Road Use and Public Drainage System Protection Agreements

- G. A permit fee equal to \$1,000.00 for each turbine in a C-WECS project, to be paid upon receipt of the final C-WECS permit application.
 - H. Any FAA, FCC, or other state or federal permits or approvals that are necessary for the project. Applicant shall submit a copy of the actual permit application, or proof that the permit has been filed with the appropriate agency.
 - J. A decommissioning plan pursuant to Section 7.
 - K. Such additional information as the County may request due to the unique circumstances with the project. Applicants are encouraged to have on-going discussions with the County CED staff and County Engineer during preparation of the application.
3. **County Staff Review.** Completed C-WECS permit applications shall be filed with the CED Department. The CED staff shall promptly provide a copy of the application to the County Engineer, County Finance Controller, County Emergency Management Director, and any other relevant county staff for review. Upon determination by the CED Director that the requirements of this Ordinance have been satisfied, the completed C-WECS permit application and any/all necessary supporting documentation shall be presented to the Woodbury County Board of Supervisors for approval. If the CED Director determines that the application lacks the required information provided in Section 5, the CED Director shall then provide the applicant's authorized representative written Notice of the deficiency. The applicant may refile an amended application once the deficiencies have been resolved.
 4. **Public Hearing Required.** Upon completion of the County's review of the application, the County shall schedule a public hearing to be held no later than thirty (30) days after the County has deemed the application complete. Representatives of the C-WECS permit holder who are familiar with all aspects of the project must be present at the public hearing.
 5. **Notice of Public Hearing.** In accordance with Iowa Code Chapter 21, the CED Department shall provide a notice of the filing in substantially the following form for each public hearing:

PUBLIC NOTICE

Notice is hereby given that (name of applicant) has filed a completed application with Woodbury County to build a commercial windfarm to be located in (list Township names and section numbers). The windfarm is projected to have _____ individual turbines that are being reviewed by the County. The Woodbury County Board of Supervisors shall hold a Public Hearing on this application in the Woodbury County Courthouse, Board of Supervisors Meeting Room, located in the basement of 620 Douglas Street, Sioux City, IA 51101, on: (Day, Month, Year) at (Time).

The Notice of Filing shall be:

- A. Published by the CED Department once for two consecutive weeks in one or more newspapers, as defined in Iowa Code Section 618.3, published in and having general circulation in Woodbury County, which has been identified as the following currently existing newspaper: Sioux City Journal; and
 - B. Mailed by the CED Department to each landowner identified in the application pursuant to paragraph 2. B. and to each city located within one (1) mile of the project area; and
 - C. Mailed by the CED Department to the owners of the Public Conservation Areas and all communication and other antenna identified in the application.
 - D. All costs of mailing and publication shall be paid by applicant to the CED Department in advance.
6. **Approval by Board of Supervisors.** In considering whether to approve an application for a C-WECS permit, the Board of Supervisors shall proceed according to the following format:
- A. Within thirty (30) days following the C-WECS permit application being deemed complete, the Supervisors shall review it for completeness and compliance with this Ordinance.
 - B. The Supervisors shall establish findings of fact based upon information contained in the application, the staff report and information gathered at the public hearings.
 - C. The Supervisors shall consider such reasonable requirements or conditions to the C-WECS permit as will ensure the development will satisfy the requirements of this Ordinance.
 - D. If the Supervisors conclude that all such criteria have been met, the application may be approved unless it adopts a motion that the application fails to meet any of the approval standard set forth in this Ordinance.
 - E. Without limiting the foregoing, the Supervisors may attach to a C-WECS permit conditions it deems necessary to protect the health, safety, and general welfare of the public; and, if the applicant is agreeable to such conditions, the Supervisors may approve the application by Resolution.
 - F. The Resolution shall direct the CED Director to issue an approved C-WECS permit.
7. **Modifications.** The location of components may be modified from the final development plan when necessary to address exigencies encountered during construction, subject to the following limitations:

- A. Any such modification shall remain subject to all setbacks and other requirements set forth in this Ordinance and the Ancillary Agreements in Section 8; and
- B. The location of turbines and project substations can only be modified from the final development plan with approval of the CED Director if the proposed relocation is 300 feet or less; or, for such modifications exceeding 300 feet, with the approval of the Board of Supervisors. Approval of a turbine or project substation modification by the CED Director or the Board of Supervisors shall be deemed an approved amendment to the final development plan and automatically amend the C-WECS permit; and
- C. Within 30 days from the completion of the project, the C-WECS permit holder shall revise the final development plan to show the exact “as-built” coordinates for all components, including any modifications. Failure to timely provide such coordinates shall be a material violation of this Ordinance.

Section 6 – Siting and Design Standards

- 1. **Setbacks.** All turbines and project substations shall observe the following setbacks:

[Note – all measurements shall be from the center point of the tower (or from the nearest above-ground non-fence structure at a substation site) to the nearest point on any occupied residence, occupied non-residential building, or confinement feeding operation building; or to the nearest property line of any other protected area.]

A.

<u>Protected Area</u>	<u>Set Back Requirement</u>
Adjacent Property Lines	110% of total height
Occupied Residence	110% of total height
Unoccupied Non-Residential Building	110% of total height
Confinement Feeding Operation Building	110% of total height
Public Road Right-of-Way	600 feet or 110% of total height (whichever is greater)
Public Drainage District Right-of-Way	
Open Ditch	300 feet
Tile (centerline)	100 feet
Public Conservation Area	600 feet or 110% of total height (whichever is greater)
Cemetery	600 feet
City Limits	600 feet
Airports (public and private)	FAA consultation and determination required

B. Public and Private Airport Setbacks.

- 1. The following landing areas shall be considered for purposes of this Ordinance airports if, prior to the initial filing date of the Notice, are in operation or to which a sponsor has a valid Certificate of Site Approval as set forth in Iowa Administrative Code Rules 761-720.4 and 761-720.5:
 - A. A public-use airport as defined in Iowa Code Sections 329.1(1) and Iowa Administrative Code Rule 761-720.2; or

B. A private-use airport as defined in Iowa Code Section 329.1(1) and Iowa Administrative Code Rule 761-720.2 that had: (i) obtained all necessary local, state, and federal approvals to construct and operate as a private-use airport; and (ii) received an airport identification assignment from the Federal Aviation Administration (“FAA”) pursuant to Federal Aviation Regulations Part 157.

2. The setback distance for airports shall be governed by the rules and regulations of the Federal Aviation Administration (“FAA”) and/or any laws or rules of the State of Iowa that are applicable. An applicant shall not construct a turbine in violation thereof.

2. **Setback Waivers.** Property owners and municipalities may request a waiver from the setbacks as established in this Ordinance, except for the following protected areas: airports, cemeteries, public conservation areas, and public road rights-of-way.

PROVIDED, a waiver shall not alter any other non-waived setback requirement.

To effectuate such a waiver, the applicant must provide the CED Department with a recordable instrument signed by all owner(s) (or the controlling governmental entity) of the affected protected area that specifically identifies the nature and extent of the waiver. All waivers must be approved by the Board of Supervisors for compliance with this Ordinance; and upon such approval, shall be recorded in the office of the Woodbury County Recorder by the applicant.

3. **Color and finish.** All turbines and towers that are part of a C-WECS shall be white or grey. Finishes shall be matte or non-reflective.

4. **Lighting.** Lighting, including lighting intensity and frequency of strobes, shall adhere to but not exceed requirements established by the FAA permits and regulations. Red strobe lights shall be used during nighttime illumination to reduce impacts on neighboring uses and migratory birds. Red pulsating incandescent lights are not permitted.

5. **Signage.** All turbine sites shall be required to have individual 911 rural address signs at each access road. All other signs except those required for safety and directional purposes (or otherwise authorized by the County) shall be prohibited in the project area.

Section 7 – Discontinuance/Decommissioning

A WECS shall be considered a discontinued use after one (1) year without energy production, unless a plan is developed and submitted to the CED Director outlining the steps and schedule for returning the WECS to service. Discontinued use does not apply to the pre-construction or construction period and shall be measured from the initial commercial energy production and operation of the C-WECS project. All C-WECS and accessory facilities shall be removed to a depth of four (4) feet below ground level within one (1) year of discontinuation of use.

1. Each project shall have decommissioning plan approved by the Board of Supervisors. Such plan shall contain:
 - A. A description of the project components, sequence and description of the activities and cost estimates required to remove same in compliance with this Section.
 - B. The cost estimates shall be made by a professional engineer licensed in the State of Iowa. The plan shall also identify the financial resources that will be available to pay for the decommissioning and removal of the C-WECS and accessory facilities. The County reserves the right to verify that adequate decommissioning terms are contained in the landowner's lease or easement.
 - C. Cash, an irrevocable letter of credit, or a performance bond running in favor of the County in an amount no less than the total estimated net removal/restoration costs as determined by said report. Said security must be in place at the time the project is completed, and must remain in effect until decommissioning is completed. No such security shall be cancelable without notice to the Board of Supervisors. Each year, the C-WECS permit holder shall provide proof that such security is in effect at the same time as the annual report to the County Assessor is made for purposes of the real estate tax assessment.
 - D. The report prepared under c.) above shall be updated and provided to the Supervisors (i) at least every five (5) years, and (ii) upon any proposed transfer of the C-WECS permit. Should any update indicate a change in the decommissioning costs, the security required under c.) above shall be adjusted accordingly.
 - E. No transfer/assignment of the C-WECS permit shall be effective without a corresponding transfer/assignment of the obligations and financial security required under the decommissioning plan, as approved by the Board of Supervisors.

Section 8 – Ancillary Agreements/Procedures

Issuance of a C-WECS permit is strictly conditioned on the applicant executing and adhering to the following:

1. **Roads.** Applicants shall adhere to the Woodbury County Road Use and Repair Agreement, and in doing so, shall identify all roads to be used for the purpose of transporting WECS, substation parts, cement, and/or equipment for construction, operation or maintenance of the WECS and obtain applicable weight and size permits from the impacted road authorities prior to construction.
2. **Existing Road Conditions.** Applicants shall conduct a pre-construction survey, in coordination with the impacted local road authorities to determine existing conditions of roads identified pursuant to Section 8.1. The survey shall include photographs or video and written documentation

of the condition of the identified road facilities. The applicant is responsible for on-going road maintenance and dust control measures identified by the County Engineer during all phases of construction.

3. **Drainage System.** Applicants shall adhere to the Woodbury County Public Drainage System Protection Agreement, and in doing so, shall be responsible for immediate repair of damage to public drainage systems stemming from construction, operation or maintenance of WECS (where required).
4. **Post Completion Survey.** Applicants and the County Engineer will meet upon completion of the project and agree as to the necessary action needed to return roads to the existing road conditions as identified in Section 8.1 and 8.2.
5. **Required Financial Security.** Applicants shall be responsible for restoring or paying damages as agreed to by the applicable road authority sufficient to restore the identified roads, bridges, and associated infrastructure to preconstruction conditions. Financial security in a manner reviewed by the County Financial Controller and the County Engineer, and approved by the Board of Supervisors, shall be submitted covering 130% of the costs of all required improvements. This requirement may be waived or modified by the Board of Supervisors upon recommendation from the County Engineer.
6. **Safety.** All wiring between wind turbines and the C-WECS substation shall be underground. If the developer can demonstrate the need for an overhead line and the acceptance of landowners for this line, such option may be approved conditionally by the Board of Supervisors. Wind turbines and meteorological towers shall not be climbable up to fifteen (15) feet above ground level. All access doors to wind turbines and meteorological towers and electrical equipment shall be locked when not being serviced. Appropriate warning signage shall be placed on wind turbine towers, electrical equipment, and C-WECS entrances. For all WECS, the manufacturer's engineer or another qualified engineer shall certify that the turbine, foundation and tower design of the WECS is within accepted professional standards, given local soil and climate conditions.
7. **Guyed Towers.** For all guyed towers, visible and reflective objects, such as plastic sleeves, reflectors or tape, shall be placed on the guy wire anchor points and along the outer and innermost guy wires up to a height of eight (8) feet above the ground. Visible fencing shall be installed around anchor points of guy wires.
8. **Emergency Response Plan.** An Emergency Response Plan (ER Plan) provided by applicant shall be reviewed by the County's Director of Emergency Management and the Director of Emergency Services, and shall be approved by the Board of Supervisors. Said ER Plan shall contain response procedures to be followed in the event of a fire, collapse, personal injury, or other emergency at a project. The ER Plan shall contain 24-hour emergency contact information for the project
9. **Electrical Codes and Standards.** All WECS and accessory equipment and facilities shall comply with the National Electrical Code and other applicable standards.

10. Uniform Building Code. All WECS shall comply with the State Building Code adopted by the State of Iowa.

Section 9 – Effect and Transferability of C-WECS Permit

1. No construction activities on a project may begin until a C-WECS permit has been issued, except as permitted in Section 5.1.
2. Any material violation of any provision of this Ordinance that remains uncured after thirty (30) days' written notice from the County to the permit holder shall be grounds for revocation of the C-WECS permit.
3. If construction on the project has not begun within eighteen (18) months from the issuance date of the approved C-WECS permit, the C-WECS permit shall be automatically revoked without further action by the County. In such event, no work on the project may take place unless and until a new C-WECS permit is issued, and any portion of the project then completed shall be deemed a discontinued use.
4. Only the holder of the C-WECS permit shall own the project, and such holder shall be the entity responsible for observing all requirements of this Ordinance. The permit holder shall be responsible to maintain all components of the C-WECS project in good repair, and in compliance with this Ordinance and the Ancillary Agreements listed in Section 8.
5. No C-WECS permit shall be transferred or assigned, voluntarily or involuntarily, without the written approval of the Woodbury County Board of Supervisors, which consent may be withheld unless and until the Board is satisfied that a proposed transferee has the financial and operational responsibility to assume all obligations required of the permit holder under this Ordinance and the Ancillary Agreements listed in Section 8. Requests for approval of a C-WECS permit transfer shall be directed to the CED Director.

Section 10 – Miscellaneous

1. **Condemnation Waiver.** Issuance of a C-WECS permit shall be conditioned on the permit holder's enforceable promise, supported by the consideration of the issuance of the C-WECS permit, that the permit holder shall never use, or seek to use, eminent domain to acquire any real property interests to construct or operate the project.
2. In any action brought by the County against the permit holder of a C-WECS permit to enforce the provisions of this Ordinance, the County shall be entitled to recover its reasonable attorney fees and court costs as may be awarded by the decision-making tribunal.

Section 11 – Severability Clause

If any of the provisions of this Ordinance are for any reason illegal or void, then the lawful provisions of this Ordinance, which are separable from said unlawful provisions shall be and remain in full force and effect, the same as if the Ordinance contained no illegal or void provisions.

Section 12 – Repealer

All ordinances or parts of ordinances in conflict with the provisions of this Ordinance are hereby repealed.

Section 13 – Date of Effect

This Ordinance shall become effective upon its passage by the Board at three meetings and published as required by Iowa Code §331.302(8).

Adopted and passed by the Woodbury County Board of Supervisors on this ____ day of _____ 2021.

THE WOODBURY COUNTY, IOWA BOARD OF SUPERVISORS:

ATTEST:

Patrick Gill, Woodbury County Auditor

Rocky De Witt, Chairman

Matthew Ung, Vice Chairman

Mark Monson

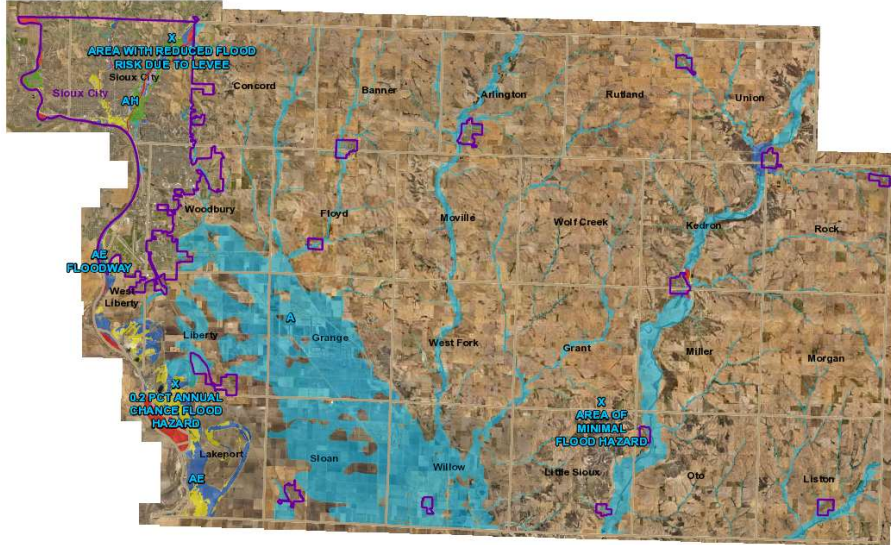
Keith Radig

Justin Wright

Adoption Timeline

- _____ : Public Hearing and 1st Reading
- _____ : Public Hearing and 2nd Reading
- _____ : Public Hearing, 3rd Reading, and Ordinance Adoption
- _____ : Published/Effective Date

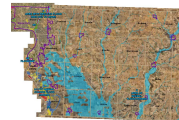
FLOODPLAIN MANAGEMENT ORDINANCE PROPOSED CHANGES 2021



1

1

Why a New Floodplain Management Ordinance?



- Adopted Ordinance must include the contents from the **“Sample Floodplain Management Ordinance”**
- Required by **FEMA** and the **Iowa DNR** as part of the adoption of the new draft floodplain maps.
 - Maps developed using 2 FT LIDAR elevation technology.
- To bring the local ordinance into compliance with FEMA regulations.
 - Ordinance language/terminology is mandated by FEMA.
 - Ordinance language enforcement is through the IDNR.
- Draft Floodplain Ordinance must be approved by IDNR prior to Board of Supervisors adoption.

2

2

**Questions from
2020 Zoning
Commission
Flood Ordinance
Review Meeting
January 27, 2020**



- **Maximum Damage Potential Development (definition) and Maximum Damage Potential Uses**
 - Hospitals and like institutions must be built 1 FT above the 500 Year Floodplain.
 - Currently, the Iowa Department of Natural Resources (IDNR) permits these institutions for counties that do not reference maximum damage potential in their floodplain ordinances.
 - Bill Cappuccio (IDNR) has stated that maximum damage potential is a state mandate and must be included in future ordinances.

3

3

**Questions from
2020 Zoning
Commission
Flood Ordinance
Review Meeting
January 27, 2020**



- **Accessory Structure for Residential Uses under 600 SF (Exemption)**
 - FEMA requires that the state and local government not allow an exemption for elevation for any structure greater than 600 SF (Cappuccio).
- **Non-Residential Structures Openings on Two Walls**
 - The language a “minimum of two (2) openings having a total net area of less than one square inch for every square foot of enclosed area...” is required for flood insurance purposes.
 - According to Cappuccio, this is where floodplain requirements are meant to match insurance regulations.
- **Building vs. Structure**
 - The State of Iowa has had floodplain regulations prior to the modern National Flood Insurance Program (NFIP).
 - Iowa’s regulations had often referenced “building” instead of “structure.”
 - The use of the term “structure” in place of “building” is meant to bring Iowa’s regulations in line with FEMA’s (Cappuccio).

4

4

**Questions from
2020 Zoning
Commission
Flood Ordinance
Review Meeting
January 27, 2020**



- **Grain Storage in Structure Definition**
 - Grain bins are structures of value. The contents within bins are of value.
 - FEMA and the IDNR recognize that bins must be protected as part of the NFIP.
 - An example, if grain is used as collateral on a loan, a bank would need to be assured that it is protected from flooding (Cappuccio).
- **100-Year Flood vs. Base Flood Elevation (BFE)**
 - The use of the term “BFE” in place of “100-Year Flood” is meant to bring Iowa’s regulations in line with FEMA’s and to reduce confusion as 100-Year Flood has often been misunderstood (Cappuccio).

5

5

**Questions from
2020 Zoning
Commission
Flood Ordinance
Review Meeting
January 27, 2020**



- **What is NGVD vs. NAVD (datum)?**
 - National American Vertical Datum of 1988.
 - National Geodetic Vertical Datum of 1929.
 - Both are elevation measurements that are part of the local floodplain study. County uses NAVD88 as per the Flood Insurance Study. (<http://woodburycountyced.com/wp-content/uploads/2019/01/Flood-Insurance-Study.pdf>).
- **Lowest Floor not used for human habitation?**
 - If a crawl space is below the BFE, it may not be used for human habitation.
 - A county may optionally adopt a non-conversion agreement which means that property owners must sign an agreement that their lowest floor or crawl space may not be converted into a living quarters.
 - Even without the optional language, crawl space may not be used for human habitation. (Sample Floodplain Management Ordinance, p. 15)

6

6

Draft Floodplain Map

Website: <https://ifis.iowafloodcenter.org/ifis/newmaps/hazard/>

Selection: "Woodbury – preliminary"

Place a checkmark next to **"Search Address"**


Input the address in the "Search address, business, point of interest box"

7

Changes

The following slides highlight changes to the Floodplain Management Ordinance

8




PROPOSED DEFINITION

Current Location: NONE
Proposed Location: Section 5.03-1

A. Appurtenant Structure – A structure which is on the same parcel of the property as the principal structure to be insured and the use of which is incidental to the use of the principal structure.

9

9



PROPOSED DEFINITION

Current Location: NONE
Proposed Location: Section 5.03-1

C. Base Flood Elevation (BFE) – The elevation floodwaters would reach at a particular site during the occurrence of a base flood event.

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PROPOSED DEFINITION

Current Location: NONE
Proposed Location: Section 5.03-1

F. Enclosed Area Below Lowest Floor – The floor of the lowest enclosed area in a building when all the following criteria are met:

- (1) The enclosed area is designed to flood to equalize hydrostatic pressure during flood events with walls or openings that satisfy the provisions of 5.03-7 B(4)(a) of this Ordinance, and
- (2) The enclosed area is unfinished (not carpeted, drywalled, etc.) and used solely for low damage potential uses such as building access, parking or storage, and
- (3) Machinery and service facilities (e.g., hot water heater, furnace, electrical service) contained in the enclosed area are located at least one (1) foot above the base flood elevation, and
- (4) The enclosed area is not a "basement" as defined in this section.

11

11




PROPOSED DEFINITION

Current Location: NONE
Proposed Location: Section 5.03-1

L. Five Hundred (500) Year Flood – A flood, the magnitude of which has a two-tenths (0.2) percent chance of being equaled or exceeded in any given year or which, on average, will be equaled or exceeded at least once every five hundred (500) years.

12

12




PROPOSED DEFINITION

Current Location: NONE
Proposed Location: Section 5.03-1

O. Flood Insurance Study (FIS) – A report published by FEMA for a community issued along with the community’s Flood Insurance Rate Map(s). The study contains such background data as the base flood discharge and water surface elevations that were used to prepare the FIRM.

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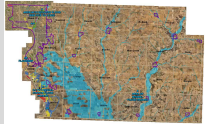
PROPOSED DEFINITION

Current Location: NONE
Proposed Location: Section 5.03-1

U. Highest Adjacent Grade – The highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure

14

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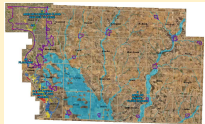
EXISTING DEFINITION

Current Location: Section 5.03-13
Proposed Location: Section 5.03-1

P. Floodway Fringe - Those portions of the floodplain, other than the floodway, which can be filled, leveed, or otherwise obstructed without causing substantially higher flood levels or flow velocities.

15

15



PROPOSED REVISED DEFINITION

Current Location: Section 5.03-13
Proposed Location: Section 5.03-1

T. Floodway Fringe - Those portions of the **Special Flood Hazard Area** outside the floodway.

16

16



EXISTING DEFINITION

Current Location: Section 5.03-13
Proposed Location: Section 5.03-1

- R. Lowest Floor - The floor of the lowest enclosed area in a building including a basement except when all the following criteria are met:
- (1) The enclosed area is designed to flood to equalize hydrostatic pressure during floods with walls or openings that satisfy the provisions of subsection 5.03-5.B.(4)(a) of this Ordinance and
 - (2) The enclosed area is unfinished (not carpeted, drywalled, etc.) and used solely for low damage potential uses such as building access, parking or storage, and
 - (3) Machinery and service facilities (e.g., hot water heater, furnace, electrical service) contained in the enclosed area are located at least one (1) foot above the 100-year flood level, and
 - (4) The enclosed area is not a "basement" as defined in this subsection.
 - (5) In cases where the lowest enclosed area satisfies criteria (1), (2), (3) and (4) above, the lowest floor is the floor of the next highest enclosed area that does not satisfy the criteria above.

17

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PROPOSED REVISED DEFINITION

Current Location: Section 5.03-13
Proposed Location: Section 5.03-1

- W. Lowest Floor** - The floor of the lowest enclosed area in a building including a basement **except** when the criteria listed in the definition of Enclosed Area below Lowest Floor are met.

18

18




PROPOSED DEFINITION

Current Location: Section 5.03-13
Proposed Location: Section 5.03-1

X. Maximum Damage Potential Uses - Hospitals and like institutions; buildings or building complexes containing documents, data, or instruments of great public value; buildings or building complexes containing materials dangerous to the public or fuel storage facilities; power installations needed in emergency or other buildings or building complexes similar in nature or use.

19

19



PROPOSED DEFINITION

Current Location: NONE
Proposed Location: Section 5.03-1

Y. Minor Projects - Small development activities (except for filling, grading and excavating) valued at less than \$500.

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PROPOSED DEFINITION

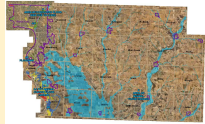
Current Location: NONE
Proposed Location: Section 5.03-1

CC.Routine Maintenance of Existing Buildings and Facilities – Repairs necessary to keep a structure in a safe and habitable condition that do not trigger a building permit, provided they are not associated with a general improvement of the structure or repair of a damaged structure. Such repairs include:

- (1) Normal maintenance of structures such as re-roofing, replacing roofing tiles and replacing siding;
- (2) Exterior and interior painting, papering, tiling, carpeting, cabinets, counter tops and similar finish work;
- (3) Basement sealing;
- (4) Repairing or replacing damaged or broken window panes;
- (5) Repairing plumbing systems, electrical systems, heating or air conditioning systems and repairing wells or septic systems.

21

21



PROPOSED DEFINITION

Current Location: NONE
Proposed Location: Section 5.03-1

DD.Special Flood Hazard Area (SFHA) – The land within a community subject to the "base flood". This land is identified on the community's Flood Insurance Rate Map as Zone A, A1-30, AE, AH, AO, AR, and/or A99.

22

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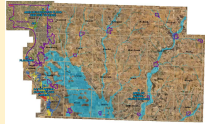
EXISTING DEFINITION

Current Location: Section 5.03-13
Proposed Location: Section 5.03-1

Y. Structure - Anything constructed or erected on the ground or attached to the ground, including, but not limited to, buildings, factories, sheds, cabins, factory-built homes, storage tanks, and other similar uses.

23

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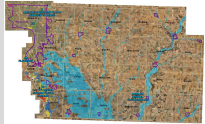
PROPOSED REVISED DEFINITION

Current Location: Section 5.03-13
Proposed Location: Section 5.03-1

FF. Structure - Anything constructed or erected on the ground or attached to the ground, including, but not limited to, buildings, factories, sheds, cabins, factory-built homes, storage tanks, **grain storage facilities** and/or other similar uses.

24

24



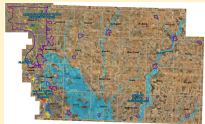
EXISTING DEFINITION

Current Location: Section 5.03-13
Proposed Location: Section 5.03-1

Z. **Substantial Damage** - Damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damage condition would equal or exceed fifty (50) percent of the market value of the structure before the damage occurred.

25

25



PROPOSED REVISED DEFINITION

Current Location: Section 5.03-13
Proposed Location: Section 5.03-1

GG. Substantial Damage - Damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damage condition would equal or exceed fifty (50) percent of the market value of the structure before the damage occurred. Volunteer labor and donated materials shall be included in the estimated cost of repair.

26

26



EXISTING DEFINITION

AA. Substantial Improvement - Any improvement to a structure which satisfies either of the following criteria:

- (1) Any repair, reconstruction, or improvement of a structure, the cost of which equals or exceeds fifty (50) percent of the market value of the structure either (i) before the "start of construction" of the improvement, or (ii) if the structure has been "substantially damaged" and is being restored, before the damage occurred.
- (2) The term does not, however, include any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions. The term also does not include any alteration of an "historic structure", provided the alteration will not preclude the structure's designation as an "historic structure".
- (3) Any addition which increases the original floor area of a building by 25 percent or more. All additions constructed after the effective date of the first floodplain management regulations adopted by the community shall be added to any proposed addition in determining whether the total increase in original floor space would exceed 25 percent.

Current Location: Section 5.03-13
Proposed Location: Section 5.03-1

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PROPOSED REVISED DEFINITION

Current Location: Section 5.03-13
Proposed Location: Section 5.03-1

HH. Substantial Improvement - Any improvement to a structure which satisfies either of the following criteria:

- (1) Any repair, reconstruction, or improvement of a structure, the cost of which equals or exceeds fifty (50) percent of the market value of the structure either (i) before the "start of construction" of the improvement, or (ii) if the structure has been "substantially damaged" and is being restored, before the damage occurred.
- (2) The term does not, however, include any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions. The term also does not include any alteration of an "historic structure", provided the alteration will not preclude the structure's designation as an "historic structure".
- (3) Any addition which increases the original floor area of a building by 25 percent or more. All additions constructed after the effective date of the first floodplain management regulations adopted by the community shall be added to any proposed addition in determining whether the total increase in original floor space would exceed 25 percent.

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CURRENT & PROPOSED LANGUAGE

Current Location: Section 5.03-1(B)3
Proposed Location: Section 5.03-2(B)3

(3) This ordinance relies upon engineering methodology for analyzing flood hazards which is consistent with the standards established by the Department of Natural Resources.

Current Location: Section 5.03-1(C)1
Proposed Location: Section 5.03-2(C)1

(1) Reserve sufficient floodplain area for the conveyance of flood flows so that flood heights and velocities will not be increased substantially.

Current Location: Section 5.03-2(B)
Proposed Location: Section 5.03-3(B)

B. Establishment of Official Floodplain Zoning Map. The Flood Insurance Rate Map (FIRM) for Woodbury County and Incorporated Areas, dated June 17, 1991, which were prepared as part of the Flood Insurance Study for Woodbury County, is (are) hereby adopted by reference and declared to be the Official Floodplain Zoning Map. The Woodbury County Flood Insurance Study is hereby adopted by reference and is made a part of this ordinance for the purpose of administering floodplain management regulations.



PROPOSED LANGUAGE

Current Location: NONE
Proposed Location: Section 5.03-4A(2I-K)

- (i) Maintain the accuracy of the community's Flood Insurance Rate Maps when:
 - (i) Development placed within the Floodway (Overlay) District results in any of the following:
 - (1) An increase in the Base Flood Elevations, or
 - (2) Alteration to the floodway boundary
 - (ii) Development placed in Zones A, AE, AH, and A1-30 that does not include a designated floodway that will cause a rise of more than one foot in the base elevation; or
 - (iii) Development relocates or alters the channel.

Within 6 months of the completion of the development, the applicant shall submit to FEMA all scientific and technical data necessary for a Letter of Map Revision.
- (j) Perform site inspections to ensure compliance with the standards of this Ordinance.
- (k) Forward all requests for Variances to the Board of Adjustment for consideration. Ensure all requests include the information ordinarily submitted with applications as well as any additional information deemed necessary to the Board of Adjustment.

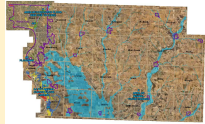


CURRENT LANGUAGE

B. Floodplain Development Permit

- (1) Permit Required - A Floodplain Development Permit issued by the Director shall be secured prior to any floodplain development (any man-made change to improved and unimproved real estate, including but not limited to buildings or other structures, mining, filling, grading, paving, excavation or drilling operations), including the placement of factory-built homes.
- (2) Application for Permit - Application shall be made on forms furnished by the Director and shall include the following:
 - (a) Description of the work to be covered by the permit for which application is to be made.
 - (b) Description of the land on which the proposed work is to be done (i.e., lot, block, track, street address or similar description) that will readily identify and locate the work to be done.
 - (c) Indication of the use or occupancy for which the proposed work is intended.
 - (d) Elevation of the 100-year flood.
 - (e) Elevation of the lowest floor (including basement) of buildings or of the level to which a building is to be floodproofed.
 - (f) For buildings being improved or rebuilt, the estimated cost of improvements and market value of the building prior to the improvements.
 - (g) Such other information as the Director deems reasonably necessary (e.g., drawings or a site plan) for the purpose of this Ordinance.

Current Location: 5.03-9B1-2
Proposed Location: Section 5.03-4B1-4



PROPOSED LANGUAGE

B. Floodplain Development Permit

- (1) Permit Required - A Floodplain Development Permit issued by the Administrator shall be secured prior to any floodplain development (any man-made change to improved and unimproved real estate, including but not limited to buildings or other structures, mining, filling, grading, paving, storage of materials and equipment, excavation or drilling operations), including the placement of factory-built homes.
- (2) Application for Permit - Application shall be made on forms furnished by the Administrator and shall include the following:
 - (a) Description of the work to be covered by the permit for which application is to be made.
 - (b) Description of the land on which the proposed work is to be done (i.e., lot, block, track, street address or similar description) that will readily identify and locate the work to be done.
 - (c) Location and dimensions of all structures and additions
 - (d) Indication of the use or occupancy for which the proposed work is intended.
 - (e) Elevation of the base flood.
 - (f) Elevation (in relation to North American Vertical Datum 1988 of the lowest floor (including basement) of structures or of the level to which a structure is to be floodproofed.
 - (g) For structures being improved or rebuilt, the estimated cost of improvements and market value of the structure prior to the improvements.
 - (h) Such other information as the Administrator deems reasonably necessary (e.g., drawings or a site plan) for the purpose of this Ordinance.
- (3) Action on Permit Application - The Administrator shall, within a reasonable time, make a determination as to whether the proposed floodplain development meets the applicable standards of this Ordinance and shall approve or disapprove the application. For disapprovals, the applicant shall be informed, in writing, of the specific reasons therefore. The Administrator shall not issue permits for variances except as directed by the County Board of Adjustment.
- (4) Construction and Use to be as Provided in Application and Plans - Floodplain Development Permits based on the basis of approved plans and applications authorize only the use, arrangement, and construction set forth in such approved plans and applications and no other use, arrangement or construction. Any use, arrangement, or construction at variance with that authorized shall be deemed a violation of this Ordinance. The applicant shall be required to submit certification by a professional engineer or land surveyor, as appropriate, registered in the State of Iowa, that the finished fill, structure floor elevations, floodproofing, or other flood protection measures were accomplished in compliance with the provisions of this Ordinance, prior to the use or occupancy of any structure.

Current Location: 5.03-9B2
Proposed Location: Section 5.03-4B



CURRENT LANGUAGE

Current Location: 5.03-3
Proposed Location: Section 5.03-5

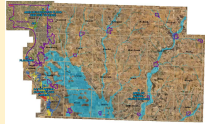
3. Establishment of Zoning (Overlay) Districts. The floodplain areas within the jurisdiction of this ordinance are hereby divided into the following districts:

- A. Floodway District (FW),
- B. Floodway Fringe District (FF),
- C. General Floodplain District (FP),
- D. Shallow Flooding District (SF) and
- E. Dam Failure Inundation District (DI).

The boundaries shall be as shown on the Official Floodplain Zoning Map and those areas identified by the Natural Resource Conservation Service as potentially subject to inundation by waters released due to partial or complete failure of a dam or other water retention or detention facility. Within these districts, all uses not allowed as Permitted Uses or permissible as Conditional Uses are prohibited unless a variance to the terms of this ordinance is granted after due consideration by the Board of Adjustment.

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PROPOSED LANGUAGE

Current Location: 5.03-3
Proposed Location: Section 5.03-5


5. Establishment of Zoning (Overlay) Districts. The floodplain areas within the jurisdiction of this ordinance are hereby divided into the following districts:

- A. Floodway (Overlay) District (FW) – those areas identified as Floodway on the Official Flood Plain Zoning Map;
- B. Floodway Fringe (Overlay) District (FF) – those areas identified as Zone AE on the Official Flood Plain Zoning Map but excluding those areas identified as Floodway;
- C. General Floodplain (Overlay) District (GF) – those areas identified as Zone A on the Official Flood Plain Zoning Map, and;
- D. Shallow Flooding (Overlay) District (SF) – those areas identified as Zone AO or AH on the Official Flood Plain Zoning Map.

The boundaries shall be as shown on the Official Floodplain Zoning Map. Within these districts, all uses not allowed as Permitted Uses are prohibited unless a variance to the terms of this ordinance is granted after due consideration by the Board of Adjustment.

34

34



CURRENT LANGUAGE

4. Floodway (Overlay) District (FW)

A. Permitted Uses. The following uses shall be permitted within the Floodway District to the extent they are not prohibited by any other ordinance (or underlying zoning district) and provided they do not include placement of structures, factory-built homes, fill or other obstruction, the storage of material or equipment, excavation or alteration of a watercourse.

- (1) Agricultural uses such as general farming, pasture, grazing, outdoor plant nurseries, horticulture, viticulture, truck farming, forestry, sod farming and wild crop harvesting.
- (2) Industrial-commercial uses such as loading areas, parking areas, airport landing strips.
- (3) Private and public recreational uses such as golf courses, tennis courts, driving ranges, archery ranges, picnic grounds, boat launching ramps, swimming areas, parks, wildlife and nature preserves, game farms, fish hatcheries, shooting preserves, target ranges, trap and skeet ranges, hunting and fishing areas, hiking and horseback riding trails.
- (4) Residential uses such as lawns, gardens, parking areas and play areas.
- (5) Such other open-space uses similar in nature to the above uses.

B. Conditional Uses. The following uses which involve structures (temporary or permanent), fill, storage of materials or equipment, excavation or alteration of a watercourse may be permitted only upon issuance of a Conditional Use Permit by the Board of Adjustment as provided for in subsection 5.03-9.C. Such uses must also meet the applicable provisions of the Floodway District Performance Standards.

- (1) Uses or structures accessory to open-space uses.
- (2) Circuses, carnivals, and similar transient amusement enterprises.
- (3) Drive-in theaters, new and used car lots, roadside stands, signs and billboards.
- (4) Extraction of sands, gravel and other materials.
- (5) Marinas, boat rentals, docks, piers and wharves.
- (6) Utility transmission lines and underground pipelines.
- (7) Other uses similar in nature to uses described in subsections 5.03-4 A or 4.B which are consistent with the provisions of subsection 5.03-4.C and the general spirit and purpose of this ordinance.


C. Performance Standards. All Floodway District uses allowed as a Permitted or Conditional Use shall meet the following standards.

- (1) No use shall be permitted in the Floodway District that would result in any increase in the 100 year flood level. Consideration of the effects of any development on flood levels shall be based upon the assumption that an equal degree of development would be allowed for similarly situated lands.
- (2) All uses within the Floodway District shall:
 - (a) Be consistent with the need to minimize flood damage.
 - (b) Use construction methods and practices that will minimize flood damage.
 - (c) Use construction materials and utility equipment that are resistant to flood damage.
 - (d) No use shall affect the capacity or conveyance of the channel or floodway of any tributary to the main stream, drainage ditch or any other drainage facility or system.
 - (e) Structures, buildings and sanitary and utility systems, if permitted, shall meet the applicable performance standards of the Floodway Fringe District and shall be constructed or aligned to present the minimum possible resistance to flood flows.
 - (f) Buildings, if permitted, shall have low flood damage potential and shall not be for human habitation.
 - (g) Storage of materials or equipment that are buoyant, flammable, explosive or injurious to human, animal or plant life is prohibited. Storage of other material may be allowed if readily removable from the Floodway District within the time available after flood warning.
 - (h) Watercourse alterations or relocations (channel changes and modifications) must be designed to maintain the flood carrying capacity within the altered or relocated portion. In addition, such alterations or relocations must be approved by the Department of Natural Resources.
 - (i) Any fill allowed in the floodway must be shown to have some beneficial purpose and shall be limited to the minimum amount necessary.
 - (j) Pipeline river or stream crossings shall be buried in the streambed and banks or otherwise sufficiently protected to prevent rupture due to channel degradation and meandering or due to the action of flood flows.

Current Location: 5.03-4
Proposed Location: Section 5.03-6

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PROPOSED LANGUAGE

6. Floodway (Overlay) District (FW)

A. Permitted Uses

All development within the Floodway District shall be permitted to the extent that they are not prohibited by any other ordinance (or underlying zoning district) and provided they meet applicable performance standards of the Floodway District.

B. Performance Standards

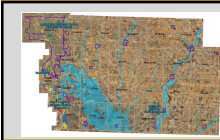
All Floodway District uses allowed as a Permitted Use shall meet the following standards.

- (1) No **development** shall be permitted in the Floodway District that would result in any increase in the **base flood elevation**. Consideration of the effects of any development on flood levels shall be based upon the assumption that an equal degree of development would be allowed for similarly situated lands.
- (2) All **development** within the Floodway District shall:
 - (a) Be consistent with the need to minimize flood damage.
 - (b) Use construction methods and practices that will minimize flood damage.
 - (c) Use construction materials and utility equipment that are resistant to flood damage.
- (3) No **development** shall affect the capacity or conveyance of the channel or floodway of any tributary to the **main stream**, drainage ditch or any other drainage facility or system.
- (4) Structures, buildings, **recreational vehicles**, and sanitary and utility systems, if permitted, shall meet the applicable performance standards of the Floodway Fringe District and shall be constructed or aligned to present the minimum possible resistance to flood flows.
- (5) **Structures**, if permitted, shall have low flood damage potential and shall not be for human habitation.
- (6) Storage of materials or equipment that are buoyant, flammable, explosive or injurious to human, animal or plant life is prohibited. Storage of other material may be allowed if readily removable from the Floodway District within the time available after flood warning.
- (7) Watercourse alterations or relocations (channel changes and modifications) must be designed to maintain the flood carrying capacity within the altered or relocated portion. In addition, such alterations or relocations must be approved by the Department of Natural Resources.
- (8) Any fill allowed in the floodway must be shown to have some beneficial purpose and shall be limited to the minimum amount necessary.
- (9) Pipeline river or stream crossings shall be buried in the streambed and banks or otherwise sufficiently protected to prevent rupture due to channel degradation and meandering or due to the action of flood flows.

Current Location: 5.03-4
Proposed Location: Section 5.03-6

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CURRENT LANGUAGE

Current Location: Section 5.03-5
Proposed Location: Section 5.03-7

7. Floodway Fringe (Overlay) District FF

A. Permitted Uses. All uses within the Floodway Fringe District shall be permitted to the extent that they are not prohibited by any other ordinance for underlying zoning district and provided they meet applicable performance standards of the Floodway Fringe District.

B. Performance Standards. All uses must be consistent with the need to minimize flood damage and meet the following applicable performance standards.

(1) All structures shall:

- (a) Be adequately anchored to prevent flotation, collapse or lateral movement of the structure.
- (b) Use construction methods and practices that will minimize flood damage.
- (c) Use construction materials and utility equipment that are resistant to flood damage.

(2) Residential buildings - All new or substantially improved residential structures shall have the lowest floor, including basement, elevated a minimum of one (1) foot above the 100-year flood level. Construction shall be upon compacted fill which shall, at all points, be no lower than 1.0 ft. above the 100-year flood level and extend at such elevation at least 10 feet beyond the limits of any structure erected thereon. Alternate methods of elevating (such as piers) may be allowed subject to favorable consideration by the Board of Adjustment, where existing topography, street grades, or other factors preclude elevating by fill. In such cases, the methods used must be adequate to support the structure as well as withstand the various forces and hazards associated with flooding.

All new residential structures shall be provided with a means of access which will be passable by wheeled vehicles during the 100-year flood.

(3) Non-residential buildings - All new or substantially improved non-residential buildings shall have the lowest floor (including basement) elevated a minimum of one (1) foot above the 100-year flood level, or together with attendant utility and sanitary systems, be floodproofed to such a level. When floodproofing is utilized, a professional engineer registered in the State of Iowa shall certify that the floodproofing methods used are adequate to withstand the flood depths, pressures, velocities, impact and uplift forces and other factors associated with the 100-year flood, and that the structure, below the 100-year flood level is watertight with walls substantially impervious to the passage of water. A record of the certification indicating the specific elevation (in relation to National Geodetic Vertical Datum) to which any structures are floodproofed shall be maintained by the Director.

(4) All new and substantially improved structures:

- (a) Fully enclosed areas below the "lowest floor" (not including basements) 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 floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or meet or exceed the following minimum criteria:
 - (i) 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.

(5) The bottom of all openings shall be no higher than one foot above grade.

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

Such areas shall be used solely for parking of vehicles, building access and low damage potential storage.

(7) New and substantially improved structures must 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.

(8) New and substantially improved structures shall be constructed with electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities that are designed and located so as to prevent water from entering or accumulating within the components during conditions of flooding.

(9) Factory-built homes:

- (a) All factory-built homes, including those placed in existing factory-built home parks or subdivisions, shall be elevated on a permanent foundation such that the lowest floor of the structure is a minimum of one (1) foot above the 100-year flood level.
- (b) All factory-built homes, including those placed in existing factory-built home parks or subdivisions, shall be anchored to resist flotation, collapse, or lateral movement. Methods of anchoring may include, but are not limited to, use of one-top or frame ties to ground anchors.

(10) Utility and Sanitary Systems:

- (a) On-site waste disposal and water supply systems shall be located or designed to avoid impairment to the system or contamination from the system during flooding.
- (b) All new and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the system. Wastewater treatment facilities (other than on-site systems) shall be provided with a level of protection equal to or greater than one (1) foot above the 100-year flood elevation.
- (c) New or replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system. Water supply treatment facilities (other than on-site systems) shall be provided with a level of protection equal to or greater than one (1) foot above the 100-year flood elevation.
- (d) Utilities such as gas or electrical systems shall be located and constructed to minimize or eliminate flood damage to the system and the risk associated with such flood damage or impaired systems.
- (e) Storage of materials and equipment that are flammable, explosive or injurious to human, animal or plant life is prohibited unless elevated a minimum of one (1) foot above the 100-year flood level. Other material and equipment must either be similarly elevated or (i) not be subject to major flood damage and be anchored to prevent movement due to flood waters or (ii) be readily removable from the area within the time available after flood warning.
- (f) Flood control structural works such as levees, flood walls, etc. shall provide, at a minimum, protection from a 100-year flood with a minimum of 3 ft. of design headroom and shall provide for adequate minor drainage. In addition, structural flood control works shall be approved by the Department of Natural Resources.
- (g) Watercourse alterations or relocations must be designed to maintain the flood carrying capacity within the altered or relocated portion. In addition, such alterations or relocations must be approved by the Department of Natural Resources.

(11) Subdivisions (including factory-built home parks and subdivisions) shall be consistent with the need to minimize flood damages and shall have adequate drainage provided to reduce exposure to flood damage. Development associated with subdivision proposals (including the installation of public utilities) shall meet the applicable performance standards of this Ordinance. Subdivision proposals intended for residential use shall provide all lots with a means of access which will be passable by wheeled vehicles during the 100-year flood. Proposals for subdivisions greater than five (5) acres or fifty (50) lots (whichever is less) shall include 100-year Floodway Fringe Overlay District.

(12) Accessory Structures

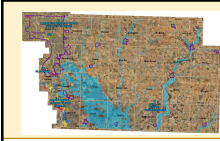
- (a) Detached garages, sheds, and similar structures accessory to a residential use exempt from the 100-year flood elevation requirements where the following criteria are satisfied:
 - (i) The structure shall not be used for human habitation.
 - (ii) The structure shall be designed to have low flood damage potential.
 - (iii) The structure shall be constructed and placed on the building site so as to offer minimum resistance to the flow of floodwaters.
 - (iv) The structure shall be firmly anchored to prevent flotation which may result in damage to other structures.
 - (v) The structure's service facilities such as electrical and heating equipment shall be elevated or floodproofed to at least one foot above the 100-year flood level.
- (b) Exemption from the 100-year flood elevation requirements for such a structure may result in increased premium rates for flood insurance coverage of the structure and its contents.

(13) Recreational Vehicles

- (a) Recreational vehicles are exempt from the requirements of subsection 5.03-5.03(3) of this Ordinance regarding anchoring and elevation of factory-built homes when the following criteria are satisfied:
 - (i) The recreational vehicle shall be located on the site for less than 180 consecutive days, and.
 - (ii) The recreational vehicle must be fully furnished and ready for highway use. A recreational vehicle is ready for highway use if it is in its wheels or jacking system is attached to the site only by quick disconnect type utilities and security devices and has no permanently attached additions.
- (b) Recreational vehicles that are located on the site for more than 180 consecutive days or are not ready for highway use must satisfy requirements of subsection 5.03-5.03(3) of this Ordinance regarding anchoring and elevation of factory-built homes.

(14) Pipeline river and stream crossings shall be buried in the streambed and banks, or otherwise sufficiently protected to prevent rupture due to channel degradation and meandering.

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PROPOSED LANGUAGE

Current Location: Section 5.03-5
Proposed Location: Section 5.03-7

7. Floodway Fringe (Overlay) District FF

A. Permitted Uses. All uses within the Floodway Fringe District shall be permitted to the extent that they are not prohibited by any other ordinance for underlying zoning district and provided they meet applicable performance standards of the Floodway Fringe District.

B. Performance Standards. All uses must be consistent with the need to minimize flood damage and meet the following applicable performance standards.

(1) All structures shall:

- (a) Be **adequately** anchored to prevent flotation, collapse or lateral movement.
- (b) Use construction methods and practices that will minimize flood damage.
- (c) Use construction materials and utility equipment that are resistant to flood damage.

(2) Residential buildings - All new or substantially improved residential structures shall have the lowest floor, including basement, elevated a minimum of one (1) foot above the **base flood elevation**. Construction shall be upon compacted fill which shall, at all points, be no lower than 1.0 ft. above the **base flood elevation** and extend at such elevation at least 10 feet beyond the limits of any structure erected thereon. Alternate methods of elevating (such as piers or **substantiated foundations**) may be allowed subject to favorable consideration by the Board of Adjustment, where existing topography, street grades, or other factors preclude elevating by fill. In such cases, the methods used must be adequate to support the structure as well as withstand the various forces and hazards associated with flooding.

(3) Non-residential buildings - All new or substantially improved non-residential buildings shall have the lowest floor (including basement) elevated a minimum of one (1) foot above the **base flood elevation**, or together with attendant utility and sanitary systems, be floodproofed to such a level. When floodproofing is utilized, a professional engineer registered in the State of Iowa shall certify that the floodproofing methods used are adequate to withstand the flood depths, pressures, velocities, impact and uplift forces and other factors associated with the **base flood**, and that the structure, below the **base flood elevation** is watertight with walls substantially impervious to the passage of water. A record of the certification indicating the specific elevation (in relation to National Geodetic Vertical Datum) to which any structures are floodproofed shall be maintained by the Administrator.

(4) **All new and substantially improved structures**:

- (a) Fully enclosed areas below the "lowest floor" (not including basements) 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 floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or meet or exceed the following minimum criteria:
 - (i) A minimum of two (2) 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.
- (b) The bottom of all openings shall be no higher than one foot above grade.
- (c) Openings may be equipped with screens, louvers, valves, or other coverings or devices provided they permit the automatic entry and exit of floodwaters.

Such areas shall be used solely for parking of vehicles, building access and low damage potential storage.

(5) **New and substantially improved structures** must 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.

(6) **New and substantially improved structures** shall be constructed with electric meter, electrical service panel box, hot water heater, heating, air conditioning, ventilation equipment (including furnaces), and other similar machinery and equipment elevated (or, in the case of residential structures, optionally floodproofed) to a minimum of one (1) foot above the **base flood elevation**.

(7) **All new and substantially improved structures** shall be constructed with plumbing, gas lines, utility meter and other similar services, optionally floodproofed to a minimum of one (1) foot above the **base flood elevation** designed to be watertight and withstand inundation to such a level.

(8) **Factory-built homes**

- (a) All new and substantially improved factory-built homes, including those placed in existing factory-built home parks or subdivisions, shall be elevated on a permanent foundation such that the lowest floor of the structure is a minimum of one (1) foot above the **base flood elevation**.
- (b) All new and substantially improved factory-built homes, including those placed in existing factory-built home parks or subdivisions, shall be anchored to resist flotation, collapse, or lateral movement. Anchorage systems may include, but are not limited to, use of one-top or frame ties to ground anchors as required by the State Building Code.

(9) **Utility and Sanitary Systems**

- (a) On-site wastewater disposal and water supply systems shall be located or designed to avoid impairment to the system or contamination from the system during flooding.
- (b) All new and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the system as well as the discharge of effluent into flood waters. Wastewater treatment facilities (other than on-site systems) shall be provided with a level of protection equal to or greater than one (1) foot above the **base flood elevation**.
- (c) New or replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system. Water supply treatment facilities (other than on-site systems) shall be provided with a level of protection equal to or greater than one (1) foot above the **base flood elevation**.
- (d) Utilities such as gas or electrical systems shall be located and constructed to minimize or eliminate flood damage to the system and the risk associated with such flood damage or impaired systems.
- (e) Storage of materials and equipment that are flammable, explosive or injurious to human, animal or plant life is prohibited unless elevated a minimum of one (1) foot above the **base flood elevation**. Other material and equipment must either be similarly elevated or (i) not be subject to major flood damage and be anchored to prevent movement due to flood waters or (ii) be readily removable from the area within the time available after flood warning.
- (f) **Flood control structural works** such as levees, flood walls, etc. shall provide, at a minimum, protection from the **base flood** with a minimum of 3 ft. of design headroom and shall provide for adequate minor drainage. In addition, the Department of Natural Resources shall approve structural flood control works.
- (g) **Watercourse alterations or relocations** must be designed to maintain the flood carrying capacity within the altered or relocated portion. In addition, such alterations or relocations must be approved by the Department of Natural Resources.

(10) **Subdivisions** (including factory-built home parks and subdivisions) shall be consistent with the need to minimize flood damages and shall have adequate drainage provided to reduce exposure to flood damage. Development associated with subdivision proposals (including the installation of public utilities) shall meet the applicable performance standards of this Ordinance. Subdivision proposals intended for residential use shall provide all lots with a means of access which will be passable by wheeled vehicles during the 100-year flood. Proposals for subdivisions greater than five (5) acres or fifty (50) lots (whichever is less) shall include **base flood elevation** data for those areas located within the Floodway Fringe Overlay District.

(11) **Accessory Structures in Residential District**

- (a) Detached garages, sheds, and similar structures that are incidental to a residential use are exempt from the base flood elevation requirements where the following criteria are satisfied:
 - (i) The structure shall be designed to have low flood damage potential. Its size shall not exceed 600 sq. ft. and the structure, below the 2.7% annual chance flood elevation shall be constructed of flood resistant materials.
 - (ii) The structure shall be used solely for low flood damage potential purposes such as vehicle parking and limited storage. The structure shall not be used for human habitation.
 - (iii) The structure shall be constructed and placed on the building site so as to offer minimum resistance to the flow of floodwaters.
 - (iv) The structure shall be firmly anchored to prevent flotation, collapse, and lateral movement which may result in damage to other structures.
 - (v) The structure's service facilities such as electrical and heating equipment shall be elevated or floodproofed to at least one foot above the **base flood elevation**.

(12) **Recreational Vehicles**

- (a) Recreational vehicles are exempt from the requirements of subsection 5.03-5.03(3) of this Ordinance regarding anchoring and elevation of factory-built homes when the following criteria are satisfied:
 - (i) The recreational vehicle shall be located on the site for less than 180 consecutive days, and.
 - (ii) The recreational vehicle must be fully furnished and ready for highway use. A recreational vehicle is ready for highway use if it is in its wheels or jacking system is attached to the site only by quick disconnect type utilities and security devices and has no permanently attached additions.
- (b) Recreational vehicles that are located on the site for more than 180 consecutive days or are not ready for highway use must satisfy requirements of subsection 5.03-5.03(3) of this Ordinance regarding anchoring and elevation of factory-built homes.

(13) **Electric lines and stream crossings** shall be buried in the streambed and banks, or otherwise sufficiently protected to prevent rupture due to channel degradation and meandering.

(14) **Watercourse alterations or relocations** must be designed to maintain the flood carrying capacity within the altered or relocated portion. In addition, such alterations or relocations must be approved by the Department of Natural Resources with sufficient technical information to make such determinations.


(15) **The structure's walls shall include openings that satisfy the provisions of 5.03-5.03(4)(a) when floodproofed.**

(16) **Exemption from the base flood elevation requirements for such a structure may result in increased premium rates for flood insurance coverage of the structure and its contents.**

(17) **Recreational Vehicles**

- (a) Recreational vehicles are exempt from the requirements of subsection 5.03-5.03(3) of this Ordinance regarding anchoring and elevation of factory-built homes when the following criteria are satisfied:
 - (i) The recreational vehicle shall be located on the site for less than 180 consecutive days, and.
 - (ii) The recreational vehicle must be fully furnished and ready for highway use. A recreational vehicle is ready for highway use if it is in its wheels or jacking system is attached to the site only by quick disconnect type utilities and security devices and has no permanently attached additions.
- (b) Recreational vehicles that are located on the site for more than 180 consecutive days or are not ready for highway use must satisfy requirements of subsection 5.03-5.03(3) of this Ordinance regarding anchoring and elevation of factory-built homes.

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CURRENT LANGUAGE

6. General Floodplain (Overlay) District FP

A. Permitted Uses. The following uses shall be permitted within the General Floodplain District to the extent they are not prohibited by any other ordinance (or underlying zoning district) and provided they do not include placement of structures, factory-built homes, fill or other obstructions, the storage of materials or equipment, excavation or alteration of a watercourse.

- (1) Agricultural uses such as general farming, pasture, grazing, outdoor plant nurseries, horticulture, viticulture, truck farming, forestry, sod farming and wild crop harvesting.
- (2) Industrial-commercial uses such as loading areas, parking areas, airport landing strips.
- (3) Private and public recreational uses such as golf courses, tennis courts, driving ranges, archery ranges, picnic grounds, boat launching ramps, swimming areas, parks, wildlife and nature preserves, game farms, fish hatcheries, shooting preserves, target ranges, trap and skeet ranges, hunting and fishing areas, hiking and horseback riding trails.
- (4) Residential uses such as lawns, gardens, parking areas and play areas.

B. Conditional Uses. Any uses which involve placement of structures, factory-built homes, fill or other obstructions, storage of materials or equipment, excavation or alteration of a watercourse may be allowed only upon issuance of a Conditional Use Permit by the Board of Adjustment as provided for in subsection 8.C. All such uses shall be reviewed by the Department of Natural Resources to determine (i) whether the land involved is either wholly or partly within the floodway or floodway fringe and (ii) the 100 year flood level. The applicant shall be responsible for providing the Department of Natural Resources with sufficient technical information to make the determination.


C. Performance Standards

- (1) All conditional uses, or portions thereof, to be located in the floodway as determined by the Department of Natural Resources shall meet the applicable provisions and standards of the Floodway (Overlay) District (subsection 5.03-4).
- (2) All conditional uses, or portions thereof, to be located in the floodway fringe as determined by the Department of Natural Resources shall meet the applicable provisions and standards of the Floodway Fringe (Overlay) District (subsection 5.03-5).

Current Location: Section 5.03-6
Proposed Location: Section 5.03-8

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PROPOSED LANGUAGE

8. General Floodplain (Overlay) District GF

A. Permitted Uses

- (1) All development within the General Floodplain District shall be permitted to the extent that they are not prohibited by any other ordinance (or underlying zoning district) and provided they meet the applicable performance standards of the General Floodplain District.
- (2) Any development which involves placement of structures, factory-built homes, fill or other obstructions, storage of materials or equipment, excavation or alteration of a watercourse shall be reviewed by the Department of Natural Resources to determine (i) whether the land involved is either wholly or partly within the floodway or floodway fringe and (ii) the base flood elevation. The applicant shall be responsible for providing the Department of Natural Resources with sufficient technical information to make the determination.
- (3) Review by the Iowa Department of Natural Resources is not required for the proposed construction of new or replacement bridges or culverts where:
 - (a) The bridge or culvert is located on a stream that drains less than one hundred (100) square miles, and
 - (b) The bridge or culvert is not associated with a channel modification that constitutes a channel change as specified in 567-71.2(1)b, Iowa Administrative Code.

B. Performance Standards

- (1) All development, or portions thereof, to be located in the floodway as determined by the Department of Natural Resources shall meet the applicable provisions and standards of the Floodway (Overlay) District subsection 5.03-6.
- (2) All development, or portions thereof, to be located in the floodway fringe as determined by the Department of Natural Resources shall meet the applicable provisions and standards of the Floodway Fringe (Overlay) District subsection 5.03-7.

Current Location: Section 5.03-6
Proposed Location: Section 5.03-8

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CURRENT & PROPOSED LANGUAGE

Current Location: Section 5.03-7
Proposed Location: Section 5.03-9

CURRENT LANGUAGE

7. Shallow Flooding (Overlay) District (SF)

- A. Permitted Uses. All uses within the Shallow Flooding District shall be permitted to the extent that they are not prohibited by any other ordinance (or underlying zoning district) and provided they meet the applicable performance standards of the Shallow Flooding District.
- B. Performance Standards. The performance standards for the Shallow Flooding District shall be the same as the performance standards for the Floodway Fringe District with the following exceptions:
 - (1) In shallow flooding areas designated as an AO Zone on the Flood Insurance Rate Map, the minimum floodproofing/flood protection elevation shall be equal to the number of feet as specified on the FIRM (or a minimum of 2.0 ft. if no number is specified) above the highest natural grade adjacent to the structure.
 - (2) In shallow flooding areas designated as an AH Zone on the Flood Insurance Rate Map, the minimum floodproofing/flood protection elevation shall be equal to the elevation as specified on the FIRM.

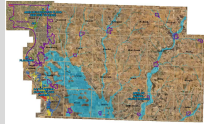
PROPOSED LANGUAGE

9. Shallow Flooding (Overlay) District (SF)

- A. Permitted Uses. All uses within the Shallow Flooding District shall be permitted to the extent that they are not prohibited by any other ordinance (or underlying zoning district) and provided they meet the applicable performance standards of the Shallow Flooding District.
- B. Performance Standards. The performance standards for the Shallow Flooding District shall be the same as the performance standards for the Floodway Fringe District with the following exceptions:
 - (1) In shallow flooding areas designated as an AO Zone on the Flood Insurance Rate Map, the minimum floodproofing/flood protection elevation shall be equal to the number of feet as specified on the FIRM (or a minimum of 2.0 ft. if no number is specified) above the highest natural grade adjacent to the structure.
 - (2) In shallow flooding areas designated as an AH Zone on the Flood Insurance Rate Map, the minimum floodproofing/flood protection elevation shall be equal to the elevation as specified on the FIRM.
 - (3) In shallow flooding areas designated as either an AH or AO Zone on the Flood Insurance Rate Map, drainage paths are required around structures on slopes to adequately guide floodwaters around and away from proposed structures.

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CURRENT LANGUAGE

Current Location: Section 5.03-9
Proposed Location: Section 5.03-10

C. Conditional Uses, Appeals and Variances

- (1) Appointment and Duties of Board of Adjustment - A Board of Adjustment is hereby established which shall hear and decide (i) applications for Conditional Uses upon which the Board is authorized to pass under this ordinance, (ii) appeals, and (iii) requests for variances to the provisions of this ordinance, and shall take any other action which is required of the Board.
- (2) Conditional Uses - Requests for Conditional Uses shall be submitted to the Director, who shall forward such to the Board of Adjustment for consideration. Such requests shall include information ordinarily submitted with applications as well as any additional information deemed necessary to the Board of Adjustment.
- (3) Appeals - Where it is alleged there is any error in any order, requirement, decision, or determination made by an administrative official in the enforcement of this ordinance, the aggrieved party may appeal such action. The notice of appeal shall be filed with the Board of Adjustment and with the official from whom the appeal is taken and shall set forth the specific reason for the appeal. The official from whom the appeal is taken shall transmit to the Board of Adjustment all the documents constituting the record upon which the action appealed from was taken.

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CURRENT LANGUAGE continued...

Current Location: Section 5.03-9
Proposed Location: Section 5.03-10

- (4) Variance - The Board of Adjustment may authorize upon request in specific cases such as variances from the terms of this Ordinance that will not be contrary to the public interest where, owing to special conditions, a literal enforcement of the provisions of this Ordinance will result in unnecessary hardship. Variances granted must meet the following applicable standards.
 - (a) Variances shall only be granted upon: (i) a showing of good and sufficient cause, (ii) a determination that failure to grant the variance would result in exceptional hardship to the applicant, and (iii) a determination that the granting of the variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public or conflict with existing local codes or ordinances.
 - (b) Variances shall not be issued within any designated floodway if any increase in flood levels during the 100-year flood would result. Consideration of the effects of any development on flood levels

- shall be based upon the assumption that an equal degree of development would be allowed for similarly situated lands.
- (c) Variances shall only be granted upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.
- (d) In cases where the variance involves a lower level of flood protection for buildings than what is ordinarily required by this Ordinance, the applicant shall be notified in writing over the signature of the Director that: (i) the issuance of a variance will result in increased premium rates for flood insurance up to amounts as high as \$25 for \$100 of insurance coverage and (ii) such construction increases risks to life and property.
- (e) All variances granted shall have the concurrence or approval of the Department of Natural Resources.



PROPOSED LANGUAGE

Current Location: Section 5.03-9
Proposed Location: Section 5.03-10

10. Appointment and Duties of Board of Adjustment

A Board of Adjustment is hereby established which shall hear and decide (i) appeals, and (ii) requests for variances to the provisions of this ordinance, and shall take any other action which is required of the Board.

A. Appeals - Where it is alleged there is any error in any order, requirement, decision, or determination made by an administrative official in the enforcement of this ordinance, the aggrieved party may appeal such action. The notice of appeal shall be filed with the Board of Adjustment and with the official from whom the appeal is taken and shall set forth the specific reason for the appeal. The official from whom the appeal is taken shall transmit to the Board of Adjustment all the documents constituting the record upon which the action appealed from was taken.

B. Variance - The Board of Adjustment may authorize upon request in specific cases such as variances from the terms of this Ordinance that will not be contrary to the public interest where, owing to special conditions, a literal enforcement of the provisions of this Ordinance will result in unnecessary hardship. Variances granted must meet the following applicable standards.

(1) Variances shall only be granted upon: (i) a showing of good and sufficient cause, (ii) a determination that failure to grant the variance would result in exceptional hardship to the applicant, and (iii) a determination that the granting of the variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public or conflict with existing local codes or ordinances.

(2) Variances shall not be issued within any designated floodway if any increase in flood levels during the **base flood** would result. Consideration of the effects of any development on flood

levels shall be based upon the assumption that an equal degree of development would be allowed for similarly situated lands.

(3) Variances shall only be granted upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.

(4) In cases where the variance involves a lower level of flood protection for buildings than what is ordinarily required by this Ordinance, the applicant shall be notified in writing over the signature of the Administrator that: (i) the issuance of a variance will result in increased premium rates for flood insurance up to amounts as high as \$25 for \$100 of insurance coverage and (ii) such construction increases risks to life and property.

(5) All variances granted shall have the concurrence or approval of the Department of Natural Resources.

D. Hearings and Decisions of the Board of Adjustment

(1) Hearings - Upon the filing with the Board of Adjustment of an Appeal or a request for a Variance, the Board shall hold a public hearing. The Board shall fix a reasonable time for the hearing and give public notice thereof, as well as due notice to parties in interest. At the hearing, any party may appear in person or by agent or attorney and present written or oral evidence. The Board may require the applicant or applicant to provide such information as is reasonably deemed necessary and may request the technical assistance and/or evaluation of a professional engineer or other expert person or agency, including the Department of Natural Resources.

(2) Decisions. The Board shall arrive at a decision on an Appeal or Variance within a reasonable time. In passing upon an Appeal, the Board may, so long as such action is in conformity with the provisions of this ordinance, reverse or affirm, wholly or in part, or modify the order, requirement, decision, or determination appealed from, and it shall make its decision, in writing, setting forth the findings of fact and the reasons for its decision. In granting a Variance, the Board shall consider such factors as contained in this section and all other relevant sections of this ordinance and may prescribe such conditions as contained in subsection (b) ~~to~~ to.

(a) Factors Upon Which the Decision of the Board of Adjustment Shall be Based. In passing upon applications for Variances, the Board shall consider all relevant factors specified in other sections of this Ordinance and:

- (i) The danger to life and property due to increased flood heights or velocities caused by encroachments.
- (ii) The danger that materials may be swept on to other land or downstream to the injury of others.
- (iii) The proposed water supply and sanitation systems and the ability of these systems to prevent disease, contamination and unsanitary conditions.
- (iv) The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner.
- (v) The importance of the services provided by the proposed facility to the County.
- (vi) The requirements of the facility for a floodplain location.
- (vii) The availability of alternative locations not subject to flooding for the proposed use.
- (viii) The compatibility of the proposed use with existing development and development anticipated in the foreseeable future.
- (ix) The relationship of the proposed use to the comprehensive plan and floodplain management program for the area.
- (x) The safety of access to the property in times of flood for ordinary and emergency

(xi) The expected heights, velocity, duration, rate of rise and sediment transport of the flood water expected at the site.

(xii) The cost of providing governmental services during and after flood conditions, including maintenance and repair of public utilities (sewer, gas, electrical and water systems), facilities, streets and bridges.

(xiii) Such other factors which are relevant to the purpose of this Ordinance.

(b) Conditions Attached to Variances. - Upon consideration of the factors listed above, the Board of Adjustment may attach such conditions to the granting of variances as it deems necessary to further the purpose of this Ordinance. Such conditions may include, but not necessarily be limited to:

- (i) Modification of waste disposal and water supply facilities.
- (ii) Limitation of periods of use and operation.
- (iii) Imposition of operational controls, sureties, and deed restrictions.
- (iv) Requirements for construction of channel modifications, dikes, levees, and other protective measures, provided such are approved by the Department of Natural Resources and are deemed the only practical alternative to achieving the purpose of this Ordinance.
- (v) Floodproofing measures. Floodproofing measures shall be designed consistent with the flood protection elevation for the particular area, flood velocities, durations, rate of rise, hydrostatic and hydrodynamic forces, and other factors associated with the regulatory flood. The Board of Adjustment shall require that the applicant submit a plan or document certified by a registered professional engineer that the floodproofing measures are consistent with the regulatory flood protection elevation and associated flood factors for the particular area.

(3) Appeals to the Court - Any person or persons, jointly or severally, aggrieved by any decision of the Board of Adjustment may present to a court of record a petition, duly verified, setting forth that such decision is illegal, in whole or in part, specifying the grounds of the illegality. Such petition shall be presented to the court within thirty days after the filing of the decision in the office of the Board.



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Section 5.03: Floodplain Management Ordinance

1. Definitions

Unless specifically defined below, words or phrases used in this Ordinance shall be interpreted so as to give them the meaning they have in common usage and to give this Ordinance its most reasonable application.

- A. Appurtenant Structure** – A structure which is on the same parcel of the property as the principal structure to be insured and the use of which is incidental to the use of the principal structure.
- B. Base Flood** - The flood having one (1) percent chance of being equaled or exceeded in any given year. (Also commonly referred to as the “100-year flood”).
- C. Base Flood Elevation (BFE)** – The elevation floodwaters would reach at a particular site during the occurrence of a base flood event.
- D. Basement** - Any enclosed area of a building which has its floor or lowest level below ground level (subgrade) on all sides. Also see "lowest floor."
- E. Development** - Any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation, drilling operations or storage of equipment or materials. “Development” does not include “minor projects” or “routine maintenance of existing buildings and facilities” as defined in this section. It also does not include gardening, plowing, and similar practices that do not involve filling or grading.
- F. Enclosed Area Below Lowest Floor** – The floor of the lowest enclosed area in a building when all the following criteria are met:
 - (1) The enclosed area is designed to flood to equalize hydrostatic pressure during flood events with walls or openings that satisfy the provisions of 5.03-7 B(4)(a) of this Ordinance, and
 - (2) The enclosed area is unfinished (not carpeted, drywalled, etc.) and used solely for low damage potential uses such as building access, parking or storage, and
 - (3) Machinery and service facilities (e.g., hot water heater, furnace, electrical service) contained in the enclosed area are located at least one (1) foot above the base flood elevation, and
 - (4) The enclosed area is not a "basement" as defined in this section.
- G. Existing Construction** - Any structure for which the "start of construction" commenced before the effective date of the first floodplain management regulations adopted by the community.
- H. Existing Factory-Built Home Park Or Subdivision** - A factory-built home park or subdivision for which the construction of facilities for servicing the lots on which the factory-built 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 first floodplain management regulations adopted by the community.
- I. Expansion Of Existing Factory-Built Home Park Or SUBDIVISION** - The preparation of additional sites by the construction of facilities for servicing the lots on which the factory-built 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).
- J. Factory-Built Home** - Any structure, designed for residential use which is wholly or in substantial part, made, fabricated, formed or assembled in manufacturing facilities for installation or assembly and installation, on a building site. For the purpose of this Ordinance factory-built homes include mobile homes, manufactured homes, and modular homes; and also include "recreational vehicles" which are placed on a site for greater than 180 consecutive days and not fully licensed for and ready for highway use.

- K. Factory-Built Home Park** - A parcel or contiguous parcels of land divided into two or more factory-built home lots for sale or lease.
- L. Five Hundred (500) Year Flood** – A flood, the magnitude of which has a two-tenths (0.2) percent chance of being equaled or exceeded in any given year or which, on average, will be equaled or exceeded at least once every five hundred (500) years.
- M. Flood** - A general and temporary condition of partial or complete inundation of normally dry land areas resulting from the overflow of streams or rivers or from the unusual and rapid runoff of surface waters from any source.
- N. Flood Insurance Rate Map (FIRM)** - The official map prepared as part of (but published separately from) the Flood Insurance Study which delineates both the flood hazard areas and the risk premium zones applicable to the community.
- O. Flood Insurance Study (FIS)** – A report published by FEMA for a community issued along with the community's Flood Insurance Rate Map(s). The study contains such background data as the base flood discharge and water surface elevations that were used to prepare the FIRM.
- P. Floodplain** - Any land area susceptible to being inundated by water as a result of a flood.
- Q. Floodplain Management** - An overall program of corrective and preventive measures for reducing flood damages and promoting the wise use of floodplains, including but not limited to emergency preparedness plans, flood control works, floodproofing and floodplain management regulations.
- R. Floodproofing** - Any combination of structural and nonstructural additions, changes, or adjustments to structures, including utility and sanitary facilities, which will reduce or eliminate flood damage to such structures.
- S. Floodway** - The channel of a river or stream and those portions of the floodplains adjoining the channel, which are reasonably required to carry and discharge flood waters or flood flows so that confinement of flood flows to the floodway area will not cumulatively increase the water surface elevation of the base flood by more than one (1) foot.
- T. Floodway Fringe** - Those portions of the **Special Flood Hazard Area** outside the floodway.
- U. Highest Adjacent Grade** – The highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure
- V. Historic Structure** - Any structure that is:
- (1) Listed individually in the National Register of Historic Places, maintained by the Department of Interior, or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing of the National Register;
 - (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;
 - (3) Individually listed on a state inventory of historic places in states with historic preservation programs which 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 by either i) an approved state program as determined by the Secretary of the Interior or ii) directly by the Secretary of the Interior in states without approved programs.
- W. Lowest Floor** - The floor of the lowest enclosed area in a building including a basement **except when the criteria listed in the definition of Enclosed Area below Lowest Floor are met.**
- X. Maximum Damage Potential Uses** - Hospitals and like institutions; buildings or building complexes containing documents, data, or instruments of great public value; buildings or building complexes containing materials dangerous to the public or fuel storage facilities; power installations needed in emergency or other buildings or building complexes similar in nature or use.

Y. Minor Projects - Small development activities (except for filling, grading and excavating) valued at less than \$500.

Z. New Construction - (new buildings, factory-built home parks) - Those structures or development for which the start of construction commenced on or after the effective date of the first floodplain management regulations adopted by the community.

AA. New Factory-Built Home Park Or Subdivision - A factory-built home park or subdivision for which the construction of facilities for servicing the lots on which the factory-built 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 after the effective date of the effective date of the first floodplain management regulations adopted by the community.

BB. Recreational Vehicle - A vehicle which is:

- (1) Built on a single chassis;
- (2) Four hundred (400) square feet or less when measured at the largest horizontal projection;
- (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 a temporary living quarters for recreational, camping, travel, or seasonal use.

CC. Routine Maintenance of Existing Buildings and Facilities – Repairs necessary to keep a structure in a safe and habitable condition that do not trigger a building permit, provided they are not associated with a general improvement of the structure or repair of a damaged structure. Such repairs include:

- (1) Normal maintenance of structures such as re-roofing, replacing roofing tiles and replacing siding;
- (2) Exterior and interior painting, papering, tiling, carpeting, cabinets, counter tops and similar finish work;
- (3) Basement sealing;
- (4) Repairing or replacing damaged or broken window panes;
- (5) Repairing plumbing systems, electrical systems, heating or air conditioning systems and repairing wells or septic systems.

DD. Special Flood Hazard Area (SFHA) – The land within a community subject to the "base flood". This land is identified on the community's Flood Insurance Rate Map as Zone A, A1-30, AE, AH, AO, AR, and/or A99.

EE. Start Of Construction - Includes substantial improvement, and means the date the development permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement, or other improvement, was within 180 days of the permit date. The actual start means either the first placement or permanent construction of a structure on a site, such as pouring of a slab or footings, the installation of pile, the construction of columns, or any work beyond the stage of excavation; or the placement of a factory-built home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers, or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of the building, whether or not that alteration affects the external dimensions of the building.

FF. Structure - Anything constructed or erected on the ground or attached to the ground, including, but not limited to, buildings, factories, sheds, cabins, factory-built homes, storage tanks, grain storage facilities and/or other similar uses.

GG. Substantial Damage - Damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damage condition would equal or exceed fifty (50) percent of the market value of the structure before the damage occurred. Volunteer labor and donated materials shall be included in the estimated cost of repair.

HH. Substantial Improvement - Any improvement to a structure which satisfies either of the following criteria:

- (1) Any repair, reconstruction, or improvement of a structure, the cost of which equals or exceeds fifty (50) percent of the market value of the structure either (i) before the "start of construction" of the improvement, or (ii) if the structure has been "substantially damaged" and is being restored, before the damage occurred.
- (2) The term does not, however, include any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions. The term also does not include any alteration of an "historic structure", provided the alteration will not preclude the structure's designation as an "historic structure".
- (3) Any addition which increases the original floor area of a building by 25 percent or more. All additions constructed after the effective date of the first floodplain management regulations adopted by the community shall be added to any proposed addition in determining whether the total increase in original floor space would exceed 25 percent.

II. Variance - A grant of relief by a community from the terms of the floodplain management regulations.

JJ. Violation - The failure of a structure or other development to be fully compliant with the community's floodplain management regulations.

2. Statutory Authority, Findings of Fact and Purpose

A. The Legislature of the State of Iowa has in Chapter 335, Code of Iowa, as amended, delegated the power to counties to enact zoning regulations to secure safety from flood and to promote health and the general welfare.

B. Findings of Fact

- (1) The flood hazard areas of Woodbury County are subject to periodic inundation which can result in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base all of which adversely affect the public health, safety and general welfare of the community.
- (2) These flood losses, hazards, and related adverse effects are caused by: (i) The occupancy of flood hazard areas by uses vulnerable to flood damages which create hazardous conditions as a result of being inadequately elevated or otherwise protected from flooding and (ii) the cumulative effect of obstructions on the floodplain causing increases in flood heights and velocities.

(3) This ordinance relies upon engineering methodology for analyzing flood hazards which is consistent with the standards established by the Department of Natural Resources.

C. Statement of Purpose. It is the purpose of this Ordinance to protect and preserve the rights, privileges and property of Woodbury County and its residents and to preserve and improve the peace, safety, health, welfare, and comfort and convenience of its residents by minimizing those flood losses described in 5.03-2.B(1) of this Ordinance with provisions designed to:

- (1) Reserve sufficient floodplain area for the conveyance of flood flows so that flood heights and velocities will not be increased substantially.
- (2) Restrict or prohibit uses which are dangerous to health, safety or property in times of flood or which cause excessive increases in flood heights or velocities.
- (3) Require that uses vulnerable to floods, including public facilities which serve such uses, be protected against flood damage at the time of initial construction or substantial improvement.

- (4) Protect individuals from buying lands which may not be suited for intended purposes because of flood hazard.
- (5) Assure that eligibility is maintained for property owners in the community to purchase flood insurance through the National Flood Insurance Program.

3. General Provisions

- A. Lands to Which Ordinance Apply. The provisions of this Ordinance shall apply to all lands within the jurisdiction of Woodbury County shown on the Official Floodplain Zoning Map as being within the boundaries of the Floodway, Floodway Fringe, General Floodplain and Shallow Flooding (Overlay) Districts, as established in section 5.03-5 below.
- B. Establishment of Official Floodplain Zoning Map. The Flood Insurance Rate Map (FIRM) for Woodbury County and Incorporated Areas, dated June 17, 1991, which were prepared as part of the Flood Insurance Study for Woodbury County, is (are) hereby adopted by reference and declared to be the Official Floodplain Zoning Map. The Woodbury County Flood Insurance Study is hereby adopted by reference and is made a part of this ordinance for the purpose of administering floodplain management regulations.
- C. Rules for Interpretation of District Boundaries. The boundaries of the zoning district areas shall be determined by scaling distances on the Official Floodplain Zoning Map. When an interpretation is needed as to the exact location of a boundary, the Zoning Director shall make the necessary interpretation. The Board of Adjustment shall hear and decide appeals when it is alleged that there is an error in any requirement, decision, or determination made by the Zoning Director in the enforcement or administration of this Ordinance.
- D. Compliance. No structure or land shall hereafter be used and no structure shall be located, extended, converted or structurally altered without full compliance with the terms of this Ordinance and other applicable regulations which apply to uses within the jurisdiction of this Ordinance.
- E. Abrogation and Greater Restrictions. It is not intended by this Ordinance to repeal, abrogate or impair any existing easements, covenants, or deed restrictions. However, where this Ordinance imposes greater restrictions, the provision of this Ordinance shall prevail. All other ordinances inconsistent with this Ordinance are hereby repealed to the extent of the inconsistency only.
- F. Interpretation. In their interpretation and application, the provisions of this Ordinance shall be held to be minimum requirements and shall be liberally construed in favor of the governing body and shall not be deemed a limitation or repeal of any other powers granted by State statutes.
- G. Warning and Disclaimer of Liability. The standards required by this Ordinance are considered reasonable for regulatory purposes. This Ordinance does not imply that areas outside the designated Floodplain (Overlay) District areas will be free from flooding or flood damages. This Ordinance shall not create liability on the part of Woodbury County or any officer or employee thereof for any flood damages that result from reliance on this Ordinance or any administrative decision lawfully made there under.
- H. Severability. If any section, clause, provision or portion of this Ordinance is adjudged unconstitutional or invalid by a court of competent jurisdiction, the remainder of this Ordinance shall not be affected thereby.

4. Administration

- A. Appointment, Duties and Responsibilities of Local Official
 - (1) The Zoning Director is hereby appointed to implement and administer the provisions of this Ordinance and will herein be referred to as the Administrator.
 - (2) Duties and responsibilities of the Administrator shall include, but not necessarily be limited to the following:
 - (a) Review all floodplain development permit applications to assure that the provisions of this Ordinance will be satisfied.

- (b) Review floodplain development applications to assure that all necessary permits have been obtained from federal, state and local governmental agencies including approval when required from the Department of Natural Resources for floodplain construction.
- (c) Record and maintain a record of (i) the elevation (in relation to North American Vertical Datum 1988 of the lowest floor (including basement) of all new or substantially improved structures or (ii) the elevation to which new or substantially improved structures have been floodproofed.
- (d) Notify adjacent communities/counties and the Department of Natural Resources prior to any proposed alteration or relocation of a watercourse and submit evidence of such notifications to the Federal Emergency Management Agency.
- (e) Keep a record of all permits, appeals and such other transactions and correspondence pertaining to the administration of this Ordinance.
- (f) Submit to the Federal Insurance Administrator an annual report concerning the community's participation, utilizing the annual report form supplied by the Federal Insurance Administrator.
- (g) Notify the Federal Insurance Administration of any annexations or modifications to the community's boundaries.
- (h) Review subdivision proposals to ensure such proposals are consistent with the purpose of this ordinance and advise the [Zoning Commission](#) of potential conflict.
- (i) **Maintain the accuracy of the community's Flood Insurance Rate Maps when;**
 - (i) **Development placed within the Floodway (Overlay) District results in any of the following:**
 - (1) **An increase in the Base Flood Elevations, or**
 - (2) **Alteration to the floodway boundary**
 - (ii) **Development placed in Zones A, AE, AH, and A1-30 that does not include a designated floodway that will cause a rise of more than one foot in the base elevation; or**
 - (iii) **Development relocates or alters the channel.**

Within 6 months of the completion of the development, the applicant shall submit to FEMA all scientific and technical data necessary for a Letter of Map Revision.
- (j) **Perform site inspections to ensure compliance with the standards of this Ordinance.**
- (k) **Forward all requests for Variances to the Board of Adjustment for consideration. Ensure all requests include the information ordinarily submitted with applications as well as any additional information deemed necessary to the Board of Adjustment.**

B. Floodplain Development Permit

- (1) Permit Required - A Floodplain Development Permit issued by the Administrator shall be secured prior to any floodplain development (any man-made change to improved and unimproved real estate, including but not limited to buildings or other structures, mining, filling, grading, paving, **storage of materials and equipment**, excavation or drilling operations), including the placement of factory-built homes..
- (2) Application for Permit - Application shall be made on forms furnished by the Administrator and shall include the following:
 - (a) Description of the work to be covered by the permit for which application is to be made.
 - (b) Description of the land on which the proposed work is to be done (i.e., lot, block, track, street address or similar description) that will readily identify and locate the work to be done.
 - (c) **Location and dimensions of all structures and additions**
 - (d) Indication of the use or occupancy for which the proposed work is intended.

- (e) Elevation of the base flood.
 - (f) Elevation (in relation to North American Vertical Datum 1988 of the lowest floor (including basement) of **structures** or of the level to which a **structure** is to be floodproofed.
 - (g) For **structures** being improved or rebuilt, the estimated cost of improvements and market value of the **structure** prior to the improvements.
 - (h) Such other information as the Administrator deems reasonably necessary (e.g., drawings or a site plan) for the purpose of this Ordinance.
- (3) Action on Permit Application - The Administrator shall, within a reasonable time, make a determination as to whether the proposed floodplain development meets the applicable standards of this Ordinance and shall approve or disapprove the application. For disapprovals, the applicant shall be informed, in writing, of the specific reasons therefore. The Administrator shall not issue permits for variances except as directed by the County Board of Adjustment.
- (4) Construction and Use to be as Provided in Application and Plans - Floodplain Development Permits based on the basis of approved plans and applications authorize only the use, arrangement, and construction set forth in such approved plans and applications and no other use, arrangement or construction. Any use, arrangement, or construction at variance with that authorized shall be deemed a violation of this Ordinance. The applicant shall be required to submit certification by a professional engineer or land surveyor, as appropriate, registered in the State of Iowa, that the finished fill, **structure** floor elevations, floodproofing, or other flood protection measures were accomplished in compliance with the provisions of this Ordinance, prior to the use or occupancy of any structure.

5. Establishment of Zoning (Overlay) Districts. The floodplain areas within the jurisdiction of this ordinance are hereby divided into the following districts:

- A. Floodway (Overlay) District (FW) – those areas identified as Floodway on the Official Flood Plain Zoning Map;
- B. Floodway Fringe (Overlay) District (FF) – those areas identified as Zone AE on the Official Flood Plain Zoning Map but excluding those areas identified as Floodway;
- C. General Floodplain (Overlay) District (GF) – those areas identified as Zone A on the Official Flood Plain Zoning Map, and;
- D. Shallow Flooding (Overlay) District (SF) – those areas identified as Zone AO or AH on the Official Flood Plain Zoning Map.

The boundaries shall be as shown on the Official Floodplain Zoning Map. Within these districts, all uses not allowed as Permitted Uses are prohibited unless a variance to the terms of this ordinance is granted after due consideration by the Board of Adjustment.

6. Floodway (Overlay) District (FW)

A. Permitted Uses

All development within the Floodway District shall be permitted to the extent that they are not prohibited by any other ordinance (or underlying zoning district) and provided they meet applicable performance standards of the Floodway District.

B. Performance Standards

All Floodway District uses allowed as a Permitted Use shall meet the following standards.

- (1) No **development** shall be permitted in the Floodway District that would result in any increase in the **base flood elevation**. Consideration of the effects of any development on flood levels shall be based upon the assumption that an equal degree of development would be allowed for similarly situated lands.
- (2) All **development** within the Floodway District shall:

- (a) Be consistent with the need to minimize flood damage.
 - (b) Use construction methods and practices that will minimize flood damage.
 - (c) Use construction materials and utility equipment that are resistant to flood damage.
- (3) No **development** shall affect the capacity or conveyance of the channel or floodway of any tributary to the main stream, drainage ditch or any other drainage facility or system.
 - (4) Structures, buildings, **recreational vehicles**, and sanitary and utility systems, if permitted, shall meet the applicable performance standards of the Floodway Fringe District and shall be constructed or aligned to present the minimum possible resistance to flood flows.
 - (5) **Structures**, if permitted, shall have low flood damage potential and shall not be for human habitation.
 - (6) Storage of materials or equipment that are buoyant, flammable, explosive or injurious to human, animal or plant life is prohibited. Storage of other material may be allowed if readily removable from the Floodway District within the time available after flood warning.
 - (7) Watercourse alterations or relocations (channel changes and modifications) must be designed to maintain the flood carrying capacity within the altered or relocated portion. In addition, such alterations or relocations must be approved by the Department of Natural Resources.
 - (8) Any fill allowed in the floodway must be shown to have some beneficial purpose and shall be limited to the minimum amount necessary.
 - (9) Pipeline river or stream crossings shall be buried in the streambed and banks or otherwise sufficiently protected to prevent rupture due to channel degradation and meandering or due to the action of flood flows.

7. Floodway Fringe (Overlay) District FF

A. Permitted Uses

All **development** within the Floodway Fringe District shall be permitted to the extent that they are not prohibited by any other ordinance (or underlying zoning district) and provided they meet applicable performance standards of the Floodway Fringe District.

B. Performance Standards

All **development** must be consistent with the need to minimize flood damage and meet the following applicable performance standards. **Until a regulatory floodway is designated, no development may increase the Base Flood Elevation more than one (1) foot.** The applicant will be responsible for providing the Department of Natural Resources with sufficient technical information to make such determination.

(1) All development shall:

- (a) Be **designed and** adequately anchored to prevent flotation, collapse or lateral movement.
- (b) Use construction methods and practices that will minimize flood damage.
- (c) Use construction materials and utility equipment that are resistant to flood damage.

- (2) **Residential structures** - All new or substantially improved residential structures shall have the lowest floor, including basement, elevated a minimum of one (1) foot above the **base flood elevation**. Construction shall be upon compacted fill which shall, at all points, be no lower than 1.0 ft. above the **base flood elevation** and extend at such elevation at least 18 feet beyond the limits of any structure erected thereon. Alternate methods of elevating (such as piers **or extended foundations**) may be allowed where existing topography, street grades, or other factors preclude elevating by fill. In such cases, the methods used must be adequate to support the structure as well as withstand the various forces and hazards associated with flooding.

All new residential structures located in areas that would become isolated due to flooding of surrounding ground shall be provided with a means of access that will be passable by wheeled vehicles during the base flood. However, this criterion shall not apply where the Administrator determines there is sufficient flood warning time for the protection of life and property. When estimating flood warning time, consideration shall be given to the criteria listed in 567-75.2(3), Iowa Administrative Code.

- (3) Non-residential structures - All new or substantially improved non-residential structures shall have the lowest floor (including basement) elevated a minimum of one (1) foot above the base flood elevation, or together with attendant utility and sanitary systems, be floodproofed to such a level. When floodproofing is utilized, a professional engineer registered in the State of Iowa shall certify that the floodproofing methods used are adequate to withstand the flood depths, pressures, velocities, impact and uplift forces and other factors associated with the base flood; and that the structure, below the base flood elevation is watertight with walls substantially impermeable to the passage of water. A record of the certification indicating the specific elevation (in relation to North American Vertical Datum 1988 to which any structures are floodproofed shall be maintained by the Administrator.

- (4) All new and substantially improved structures:

(a) Fully enclosed areas below the "lowest floor" (not including basements) 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 floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or meet or exceed the following minimum criteria:

- (i) A minimum of two (2) 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.
- (ii) The bottom of all openings shall be no higher than one foot above grade.
- (iii) Openings may be equipped with screens, louvers, valves, or other coverings or devices provided they permit the automatic entry and exit of floodwaters.

Such areas shall be used solely for parking of vehicles, building access and low damage potential storage.

(b) New and substantially improved structures must 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.

(c) New and substantially improved structures shall be constructed with electric meter, electrical service panel box, hot water heater, heating, air conditioning, ventilation equipment (including ductwork), and other similar machinery and equipment elevated (or in the case on non-residential structures, optionally floodproofed to) a minimum of one (1) foot above the base flood elevation.

(d) New and substantially improved structures shall be constructed with plumbing, gas lines, water/gas meters and other similar service utilities either elevated (or in the case of non-residential structures, optionally floodproofed to) a minimum of one (1) foot above the base flood elevation or designed to be watertight and withstand inundation to such a level.

- (5) Factory-built homes:

(a) 1) All new and substantially improved factory-built homes, including those placed in existing factory-built home parks or subdivisions, shall be elevated on a permanent foundation such that the lowest floor of the structure is a minimum of one (1) foot above the base flood elevation.

(b) 2) All new and substantially improved factory-built homes, including those placed in existing factory-built home parks or subdivisions, shall be anchored to resist flotation, collapse, or lateral movement. Anchorage systems may include, but are not limited to, use of over-the-top or frame ties to ground anchors as required by the State Building Code.

(6) Utility and Sanitary Systems:

- (a) On-site wastewater disposal and water supply systems shall be located or designed to avoid impairment to the system or contamination from the system during flooding.
- (b) All new and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the system as well as the discharge of effluent into flood waters. Wastewater treatment facilities (other than on-site systems) shall be provided with a level of flood protection equal to or greater than one (1) foot above the **base flood elevation**.
- (c) New or replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system. Water supply treatment facilities (other than on-site systems) shall be provided with a level of protection equal to or greater than one (1) foot above **the base flood elevation**.
- (d) Utilities such as gas or electrical systems shall be located and constructed to minimize or eliminate flood damage to the system and the risk associated with such flood damaged or impaired systems.

(7) Storage of materials and equipment that are flammable, explosive or injurious to human, animal or plant life is prohibited unless elevated a minimum of one (1) foot above the **base flood elevation**. Other material and equipment must either be similarly elevated or (i) not be subject to major flood damage and be anchored to prevent movement due to flood waters or (ii) be readily removable from the area within the time available after flood warning.

(8) Flood control structural works such as levees, flood walls, etc. shall provide, at a minimum, protection from the **base flood** with a minimum of 3 ft. of design freeboard and shall provide for adequate interior drainage. In addition, the Department of Natural Resources shall approve structural flood control works.

(9) Watercourse alterations or relocations must be designed to maintain the flood carrying capacity within the altered or relocated portion. In addition, such alterations or relocations must be approved by the Department of Natural Resources.

(10) Subdivisions (including factory-built home parks and subdivisions) shall be consistent with the need to minimize flood damages and shall have adequate drainage provided to reduce exposure to flood damage. Development associated with subdivision proposals (including the installation of public utilities) shall meet the applicable performance standards of this Ordinance. Subdivision proposals intended for residential use shall provide all lots with a means of access which will be passable by wheeled vehicles during the **base flood**. Proposals for subdivisions greater than five (5) acres or fifty (50) lots (whichever is less) shall include **base flood elevation** data for those areas located within the Floodway Fringe (Overlay) District.

(11) Accessory Structures to Residential Uses

- (a) 1) Detached garages, sheds, and similar structures that are incidental to a residential use are exempt from the base flood elevation requirements where the following criteria are satisfied:
 - (i) **The structure shall be designed to have low flood damage potential. Its size shall not exceed 600 sq. ft. in size. Those portions of the structure located less than 1 foot above the base flood elevation must be constructed of flood-resistant materials.**
 - (ii) The structure shall be used solely for low flood damage potential purposes such as vehicle parking and limited storage. The structure shall not be used for human habitation.
 - (iii) The structure shall be constructed and placed on the building site so as to offer minimum resistance to the flow of floodwaters.
 - (iv) The structure shall be firmly anchored to prevent flotation, collapse, and lateral movement which may result in damage to other structures.
 - (v) e. The structure's service facilities such as electrical and heating equipment shall be elevated or floodproofed to at least one foot above the **base flood elevation**.

(vi) f. The structure's walls shall include openings that satisfy the provisions of 5.03-7 B (4)(a) of this Ordinance.

b. 2) Exemption from the base flood elevation requirements for such a structure may result in increased premium rates for flood insurance coverage of the structure and its contents.

(12) Recreational Vehicles

(a) Recreational vehicles are exempt from the requirements of subsection 5.03-7 B (5) of this Ordinance regarding anchoring and elevation of factory-built homes when the following criteria are satisfied.

(i) The recreational vehicle shall be located on the site for less than 180 consecutive days, and,

(ii) The recreational vehicle must be fully licensed and ready for highway use. A recreational vehicle is ready for highway use if it is on its wheels or jacking system and is attached to the site only by quick disconnect type utilities and security devices and has no permanently attached additions.

(b) Recreational vehicles that are located on the site for more than 180 consecutive days or are not ready for highway use must satisfy requirements of subsection 5.03-7 B (5) of this Ordinance regarding anchoring and elevation of factory-built homes.

(13) Pipeline river and stream crossings shall be buried in the streambed and banks, or otherwise sufficiently protected to prevent rupture due to channel degradation and meandering.

(14) Maximum Damage Potential Uses – All new or substantially improved maximum damage potential development shall have the lowest floor (including basement) elevated a minimum of one (1) foot above the elevation of the 500-year flood, or together with attendant utility and sanitary systems, be floodproofed to such a level. When floodproofing is utilized, a professional engineer registered in the State of Iowa shall certify that the floodproofing methods used are adequate to withstand the flood depths, pressures, velocities, impact and uplift forces and other factors associated with the 0.2% annual chance flood; and that the structure, below the 0.2% annual chance flood elevation is watertight with walls substantially impermeable to the passage of water. A record of the certification indicating the specific elevation (in relation to North American Vertical Datum 1988 to which any structures are floodproofed shall be maintained by the Administrator. Where 0.2% chance flood elevation data has not been provided in the Flood Insurance Study, the Iowa Department of Natural Resources shall be contacted to compute such data. The applicant will be responsible for providing the Department of Natural Resources with sufficient technical information to make such determinations.

8. General Floodplain (Overlay) District GF

A. Permitted Uses

(1) All development within the General Floodplain District shall be permitted to the extent that they are not prohibited by any other ordinance (or underlying zoning district) and provided they meet the applicable performance standards of the General Floodplain District. .

(2) Any development which involves placement of structures, factory-built homes, fill or other obstructions, storage of materials or equipment, excavation or alteration of a watercourse shall be reviewed by the Department of Natural Resources to determine (i) whether the land involved is either wholly or partly within the floodway or floodway fringe and (ii) the base flood elevation. The applicant shall be responsible for providing the Department of Natural Resources with sufficient technical information to make the determination.

(3) Review by the Iowa Department of Natural Resources is not required for the proposed construction of new or replacement bridges or culverts where:

(a) The bridge or culvert is located on a stream that drains less than one hundred (100) square miles, and

(b) The bridge or culvert is not associated with a channel modification that constitutes a channel change as specified in 567-71.2(1)b, Iowa Administrative Code.

B. Performance Standards

(1) All development, or portions thereof, to be located in the floodway as determined by the Department of Natural Resources shall meet the applicable provisions and standards of the Floodway (Overlay) District subsection 5.03-6.

(2) All development, or portions thereof, to be located in the floodway fringe as determined by the Department of Natural Resources shall meet the applicable provisions and standards of the Floodway Fringe (Overlay) District subsection 5.03-7.

9. Shallow Flooding (Overlay) District (SF)

A. Permitted Uses. All uses within the Shallow Flooding District shall be permitted to the extent that they are not prohibited by any other ordinance (or underlying zoning district) and provided they meet the applicable performance standards of the Shallow Flooding District.

B. Performance Standards. The performance standards for the Shallow Flooding District shall be the same as the performance standards for the Floodway Fringe District with the following exceptions:

(1) In shallow flooding areas designated as an AO Zone on the Flood Insurance Rate Map, the minimum floodproofing/flood protection elevation shall be equal to the number of feet as specified on the FIRM (or a minimum of 2.0 ft. if no number is specified) above the highest natural grade adjacent to the structure.

(2) In shallow flooding areas designated as an AH Zone on the Flood Insurance Rate Map, the minimum floodproofing/flood protection elevation shall be equal to the elevation as specified on the FIRM.

(3) In shallow flooding areas designated as either an AH or AO Zone on the Flood Insurance Rate Map, drainage paths are required around structures on slopes to adequately guide floodwaters around and away from proposed structures.

10. Appointment and Duties of Board of Adjustment

A Board of Adjustment is hereby established which shall hear and decide (i) appeals, and (ii) requests for variances to the provisions of this ordinance, and shall take any other action which is required of the Board.

A. Appeals - Where it is alleged there is any error in any order, requirement, decision, or determination made by an administrative official in the enforcement of this ordinance, the aggrieved party may appeal such action. The notice of appeal shall be filed with the Board of Adjustment and with the official from whom the appeal is taken and shall set forth the specific reason for the appeal. The official from whom the appeal is taken shall transmit to the Board of Adjustment all the documents constituting the record upon which the action appealed from was taken.

B. Variance - The Board of Adjustment may authorize upon request in specific cases such variances from the terms of this Ordinance that will not be contrary to the public interest where, owing to special conditions, a literal enforcement of the provisions of this Ordinance will result in unnecessary hardship. Variances granted must meet the following applicable standards.

(1) Variances shall only be granted upon: (i) a showing of good and sufficient cause, (ii) a determination that failure to grant the variance would result in exceptional hardship to the applicant, and (iii) a determination that the granting of the variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public or conflict with existing local codes or ordinances.

(2) Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood would result. Consideration of the effects of any development on flood

levels shall be based upon the assumption that an equal degree of development would be allowed for similarly situated lands.

- (3) Variances shall only be granted upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.
- (4) In cases where the variance involves a lower level of flood protection for buildings than what is ordinarily required by this Ordinance, the applicant shall be notified in writing over the signature of the Administrator that: (i) the issuance of a variance will result in increased premium rates for flood insurance up to amounts as high as \$25 for \$100 of insurance coverage and (ii) such construction increases risks to life and property.
- (5) All variances granted shall have the concurrence or approval of the Department of Natural Resources.

D. Hearings and Decisions of the Board of Adjustment

- (1) Hearings. Upon the filing with the Board of Adjustment of an Appeal or a request for a Variance, the Board shall hold a public hearing. The Board shall fix a reasonable time for the hearing and give public notice thereof, as well as due notice to parties in interest. At the hearing, any party may appear in person or by agent or attorney and present written or oral evidence. The Board may require the appellant or applicant to provide such information as is reasonably deemed necessary and may request the technical assistance and/or evaluation of a professional engineer or other expert person or agency, including the Department of Natural Resources.
- (2) Decisions. The Board shall arrive at a decision on an Appeal or Variance within a reasonable time. In passing upon an Appeal, the Board may, so long as such action is in conformity with the provisions of this ordinance, reverse or affirm, wholly or in part, or modify the order, requirement, decision, or determination appealed from, and it shall make its decision, in writing, setting forth the findings of fact and the reasons for its decision. In granting a Variance, the Board shall consider such factors as contained in this section and all other relevant sections of this ordinance and may prescribe such conditions as contained in subsection (b) below.
 - (a) Factors Upon Which the Decision of the Board of Adjustment Shall be Based. In passing upon applications for Variances, the Board shall consider all relevant factors specified in other sections of this Ordinance and:
 - (i) The danger to life and property due to increased flood heights or velocities caused by encroachments.
 - (ii) The danger that materials may be swept on to other land or downstream to the injury of others.
 - (iii) The proposed water supply and sanitation systems and the ability of these systems to prevent disease, contamination and unsanitary conditions.
 - (iv) The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner.
 - (v) The importance of the services provided by the proposed facility to the County.
 - (vi) The requirements of the facility for a floodplain location.
 - (vii) The availability of alternative locations not subject to flooding for the proposed use.
 - (viii) The compatibility of the proposed use with existing development and development anticipated in the foreseeable future.
 - (ix) The relationship of the proposed use to the comprehensive plan and floodplain management program for the area.
 - (x) The safety of access to the property in times of flood for ordinary and emergency vehicles.

- (xi) The expected heights, velocity, duration, rate of rise and sediment transport of the flood water expected at the site.
 - (xii) The cost of providing governmental services during and after flood conditions, including maintenance and repair of public utilities (sewer, gas, electrical and water systems), facilities, streets and bridges.
 - (xiii) Such other factors which are relevant to the purpose of this Ordinance.
- (b) Conditions Attached to Variances - Upon consideration of the factors listed above, the Board of Adjustment may attach such conditions to the granting of variances as it deems necessary to further the purpose of this Ordinance. Such conditions may include, but not necessarily be limited to:
- (i) Modification of waste disposal and water supply facilities.
 - (ii) Limitation of periods of use and operation.
 - (iii) Imposition of operational controls, sureties, and deed restrictions.
 - (iv) Requirements for construction of channel modifications, dikes, levees, and other protective measures, provided such are approved by the Department of Natural Resources and are deemed the only practical alternative to achieving the purpose of this Ordinance.
 - (v) Floodproofing measures. Floodproofing measures shall be designed consistent with the flood protection elevation for the particular area, flood velocities, durations, rate of rise, hydrostatic and hydrodynamic forces, and other factors associated with the regulatory flood. The Board of Adjustment shall require that the applicant submit a plan or document certified by a registered professional engineer that the floodproofing measures are consistent with the regulatory flood protection elevation and associated flood factors for the particular area.
- (3) Appeals to the Court - Any person or persons, jointly or severally, aggrieved by any decision of the Board of Adjustment may present to a court of record a petition, duly verified, setting forth that such decision is illegal, in whole or in part, specifying the grounds of the illegality. Such petition shall be presented to the court within thirty days after the filing of the decision in the office of the Board.

11. Nonconforming Uses

- A. A structure or the use of a structure or premises which was lawful before the passage or amendment of this Ordinance, but which is not in conformity with the provisions of this Ordinance, may be continued subject to the following conditions:
- (1) If such use is discontinued for six (6) consecutive months, any future use of the building premises shall conform to this Ordinance.
 - (2) Uses or adjuncts thereof that are or become nuisances shall not be entitled to continue as nonconforming uses.
 - (3) If any nonconforming use or structure is destroyed by any means, including flood, it shall not be reconstructed if the cost is more than fifty (50) percent of the market value of the structure before the damage occurred, unless it is reconstructed in conformity with the provisions of this Ordinance.
- B. Except as provided in 5.03-11 A (2), any use which has been permitted as a Variance shall be considered a conforming use.

12. Penalties for Violation

Violations of the provisions of this Ordinance or failure to comply with any of the requirements (including violations of conditions and safeguards established in connection with grants of Variances) shall constitute a misdemeanor. Any person who violates this Ordinance or fails to comply with any of its requirements shall upon conviction thereof be fined not more than \$500 or imprisoned for not more than 30 days. Each

day such violation continues shall be considered a separate offense. Nothing herein contained prevent Woodbury County from taking such other lawful action as is necessary to prevent or remedy violation.

13. Amendments

The regulations and standards set forth in this Ordinance may from time to time be amended, supplemented, changed, or repealed. No amendment, supplement, change, or modification shall be undertaken without prior approval of the Department of Natural Resources.

ADOPTED AND PASSED by the Board of Supervisors of the County of

_____ this _____ day of _____, 20____.

Chairman

Seal of County

Attest:

County Auditor

Public Hearing Date: _____

Publication Date: _____

Effective Date: _____

Note: All Ordinances must be properly certified.