BILL NUMBER 2103

ORDINANCE NUMBER 2103

AN ORDINANCE OF THE CITY OF LADUE, MISSOURI REPEALING ORDINANCE 1468 AND ALL AMENDING ORDINANCES THROUGH ORDINANCE 1768, AND ADOPTING A NEW ORDINANCE SETTING FORTH FLOOD PLAIN MANAGEMENT STANDARDS FOR THE DESIGNATED FLOOD HAZARD AREAS IN THE CITY OF LADUE IN ACCORDANCE WITH THE STANDARDS SET FORTH BY THE FEDERAL FLOOD INSURANCE ADMINISTRATION, PROVIDING A PENALTY.

***WHEREAS*, THIS BILL HAVING BEEN MADE AVAILABLE FOR PUBLIC INSPECTION PRIOR TO ITS CONSIDERATION BY THE CITY COUNCIL; AND**

***WHEREAS*, THIS BILL HAVING BEEN READ BY TITLE TWO TIMES IN OPEN MEETING PRIOR TO ITS PASSAGE.**

WHEREAS, THE CITY COUNCIL HAS DULY CONSIDERED THE MATTER; AND

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF LADUE, ST. LOUIS COUNTY, MISSOURI, AS FOLLOWS:

Section 1.

Ordinance 1468 and all amending ordinances through Ordinance 1768 are repealed.

Section 2.

Ordinance 2103, as follows in Attachment "A" is hereby adopted as the Floodplain Management Ordinance for the City of Ladue

Section 3.

This ordinance shall be in full force and effective on February 4, 2015.

PASSED THIS 15th DAY OF DECEMBER 2014.

President, City Council

ADOPTED AND APPROVED THIS 15TH DAY OF DECEMBER 2014.

Nancy Spewak, Mayor

ATTEST:

Michael W. Wooldridge, City Clerk

CITY OF LADUE SEAL SAINT LOUIS COUNTY, MISSOURI

ATTACHMENT "A"

ORDINANCE 2103

FLOODPLAIN MANAGEMENT ORDINANCE

ARTICLE 1 STATUTORY AUTHORIZATION, FINDINGS OF FACT, AND PURPOSES

SECTION A. STATUTORY AUTHORIZATION

The Legislature of the State of Missouri has in RSMo 79.110 delegated the responsibility to local governmental units to adopt floodplain management regulations designed to protect the health, safety, and general welfare. Therefore, the City Council of the City of Ladue, Missouri ordains as follows:

SECTION B. FINDINGS OF FACT

1. *Flood Losses Resulting from Periodic Inundation*

   The special flood hazard areas of the City of Ladue, Missouri are subject to inundation which results 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.

2. *General Causes of the Flood Losses*

   These flood losses are caused by (1) the cumulative effect of development in any delineated floodplain causing increases in flood heights and velocities; and (2) the occupancy of flood hazard areas by uses vulnerable to floods, hazardous to others, inadequately elevated, or otherwise unprotected from flood damages.

3. *Methods Used To Analyze Flood Hazards*

   The Flood Insurance Study (FIS) that is the basis of this ordinance uses a standard engineering method of analyzing flood hazards which consist of a series of interrelated steps.

   a. Selection of a base flood that is based upon engineering calculations which permit a consideration of such flood factors as its expected frequency of occurrence, the area inundated, and the depth of inundation. The base flood selected for this ordinance is representative of large floods which are characteristic of what can be expected to occur on the particular streams subject to this ordinance. It is in the general order of a flood which could be expected to have a one percent chance of occurrence in any one year as delineated on the Federal Insurance Administrator's FIS, and illustrative materials for St. Louis County effective February 4, 2015 as amended, and any future revisions thereto.

b. Calculation of water surface profiles are based on a standard hydraulic engineering analysis of the capacity of the stream channel and overbank areas to convey the regulatory flood.

c. Computation of a floodway required to convey this flood without increasing flood heights more than one (1) foot at any point.

d. Delineation of floodway encroachment lines within which no development is permitted that would cause any increase in flood height.

e. Delineation of flood fringe, i.e., that area outside the floodway encroachment lines, but still subject to inundation by the base flood.

SECTION C. STATEMENT OF PURPOSE

It is the purpose of this ordinance to promote the public health, safety, and general welfare; to minimize those losses described in Article 1, Section B (1); to establish or maintain the community's eligibility for participation in the National Flood Insurance Program (NFIP) as defined in 44 Code of Federal Regulations (CFR) 59.22(a)(3); and to meet the requirements of 44 CFR 60.3(d) by applying the provisions of this ordinance to:

1. restrict or prohibit uses that are dangerous to health, safety, or property in times of flooding or cause undue increases in flood heights or velocities;

2. require uses vulnerable to floods, including public facilities that serve such uses, be provided with flood protection at the time of initial construction; and

3. protect individuals from buying lands that are unsuited for the intended development purposes due to the flood hazard.

ARTICLE 2 GENERAL PROVISIONS

SECTION A. LANDS TO WHICH ORDINANCE APPLIES

This ordinance shall apply to all lands within the jurisdiction of the City of Ladue, Missouri identified as numbered and unnumbered A zones and AE zones, on the Flood Insurance Rate Maps (FIRMs) for St. Louis County on map panels 29189C0192K, 29189C0194K, 29189C0211K, 29189C0213K, 29189C0307K, and 29189C0326K effective February 4, 2015 as amended, and any future revisions thereto. In all areas covered by this ordinance, no development shall be permitted except through the issuance of a floodplain development permit, granted by the City Council or its duly designated representative under such safeguards and restrictions as the City Council or the designated representative may reasonably impose for the promotion and maintenance of the general welfare, health of the inhabitants of the community, and as specifically noted in Article 4.

SECTION B. FLOODPLAIN ADMINISTRATOR

The Building Official is hereby designated as the Floodplain Administrator under this ordinance.

SECTION C. COMPLIANCE

No development located within the special flood hazard areas of this community shall be located, extended, converted, or structurally altered without full compliance with the terms of this ordinance and other applicable regulations.

SECTION D. 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 provisions of this ordinance shall prevail. All other ordinances inconsistent with this ordinance are hereby repealed to the extent of the inconsistency only.

SECTION E. INTERPRETATION

In their interpretation and application, the provisions of this ordinance shall be held to be minimum requirements, 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.

SECTION F. WARNING AND DISCLAIMER OF LIABILITY

The degree of flood protection required by this ordinance is considered reasonable for regulatory purposes and is based on engineering and scientific methods of study. Larger floods may occur on rare occasions or the flood heights may be increased by man-made or natural causes, such as ice jams and bridge openings restricted by debris. This ordinance does not imply that areas outside the floodway and flood fringe or land uses permitted within such areas will be free from flooding or flood damage. This ordinance shall not create a liability on the part of the City of Ladue or any officer or employee thereof, for any flood damages that may result from reliance on this ordinance or any administrative decision lawfully made thereunder.

SECTION G. SEVERABILITY

If any section, clause, provision, or portion of this ordinance is adjudged unconstitutional or invalid by a court of appropriate jurisdiction, the remainder of this ordinance shall not be affected thereby.

ARTICLE 3 ADMINISTRATION

SECTION A. FLOODPLAIN DEVELOPMENT PERMIT

A floodplain development permit shall be required for all proposed construction, site grading or other development, including the placement of manufactured homes, in the areas described in Article 2, Section A. No person, firm, corporation, or unit of government shall initiate any development or substantial improvement or cause the same to be done without first obtaining a separate floodplain development permit for each structure or other development.

SECTION B. DESIGNATION OF FLOODPLAIN ADMINISTRATOR

The Building Official is hereby appointed to administer and implement the provisions of this ordinance.

SECTION C. DUTIES AND RESPONSIBILITIES OF FLOODPLAIN ADMINISTRATOR

Duties of the Building Official shall include, but not be limited to:

1. review of all applications for floodplain development permits to assure that sites are reasonably safe from flooding and that the floodplain development permit requirements of this ordinance have been satisfied;

2. review of all applications for floodplain development permits for proposed development to assure that all necessary permits have been obtained from Federal, State, or local governmental agencies from which prior approval is required by Federal, State, or local law;

3. review all subdivision proposals and other proposed new development, including manufactured home parks or subdivisions, to determine whether such proposals will be reasonably safe from flooding;

4. issue floodplain development permits for all approved applications;

5. notify adjacent communities and the Missouri State Emergency Management Agency (Mo SEMA) prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Emergency Management Agency (FEMA);

6. assure that the flood carrying capacity is not diminished and shall be maintained within the altered or relocated portion of any watercourse;

7. verify and maintain a record of the actual elevation (in relation to mean sea level) of the lowest floor, including basement, of all new or substantially improved structures located in the floodplain;

8. verify and maintain a record of the actual elevation (in relation to mean sea level) that the new or substantially improved non-residential structures located in the floodplain have been floodproofed; and

9. when floodproofing techniques are utilized for a particular non-residential structure, the Building Official shall require certification from a registered professional engineer or architect.

SECTION D. APPLICATION FOR FLOODPLAIN DEVELOPMENT PERMIT

To obtain a floodplain development permit, the applicant shall first file an application in writing on a form furnished for that purpose. Every floodplain development permit application shall:

1. describe the land on which the proposed work is to be done by lot, block and tract, house and street address, or similar description that will readily identify and specifically locate the proposed structure or work;

2. identify and describe the work to be covered by the floodplain development permit;

3. indicate the use or occupancy for which the proposed work is intended;

4. indicate the assessed value of the structure and the fair market value of the improvement;

5. specify whether development is located in designated flood fringe or floodway;

6. identify the existing base flood elevation and the elevation of the proposed development;

7. give such other information as reasonably may be required by the Building Official;

8. be accompanied by plans and specifications for proposed construction; and

9. be signed by the permittee or his authorized agent who may be required to submit evidence to indicate such authority.

ARTICLE 4 PROVISIONS FOR FLOOD HAZARD REDUCTION

SECTION A. GENERAL STANDARDS

1. No permit for floodplain development shall be granted for new construction, substantial improvements, site grading and other improvements, including the placement of manufactured homes, within any numbered or unnumbered A zones and AE zones, unless the conditions of this section are satisfied.

2. All areas identified as unnumbered A zones on the FIRM are subject to inundation of the 100-year flood; however, the base flood elevation is not provided. Development within unnumbered A zones is subject to all provisions of this ordinance. If Flood Insurance Study data is not available, the community shall obtain, review, and reasonably utilize any base flood elevation or floodway data currently available from Federal, State, or other sources.

3. Until a floodway is designated, no new construction, substantial improvements, or other development, including site grading, shall be permitted within any numbered A zone or AE zone on the FIRM, unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one foot at any point within the community.

4. All new construction, subdivision proposals, substantial improvements, prefabricated structures, placement of manufactured homes, and other developments shall require:

   a. design or adequate anchorage to prevent flotation, collapse, or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy;

   b. construction with materials resistant to flood damage;

   c. utilization of methods and practices that minimize flood damages;

   d. all electrical, heating, ventilation, plumbing, air-conditioning equipment, and other service facilities be designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding;

   e. new or replacement water supply systems and/or sanitary sewage systems be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters, and on-site waste disposal systems be located so as to avoid impairment or contamination; and

   f. subdivision proposals and other proposed new development, including manufactured home parks or subdivisions, located within special flood hazard areas are required to assure that:

      (1) all such proposals are consistent with the need to minimize flood damage;

      (2) all public utilities and facilities, such as sewer, gas, electrical, and water systems are located and constructed to minimize or eliminate flood damage;

      (3) adequate drainage is provided so as to reduce exposure to flood hazards; and

      (4) all proposals for development, including proposals for manufactured home parks and subdivisions, of five (5) acres or fifty (50) lots, whichever is lesser, include within such proposals base flood elevation data.

5. *Storage, material, and equipment*

   a. The storage or processing of materials within the special flood hazard area that are in time of flooding buoyant, flammable, explosive, or could be injurious to human, animal, or plant life is prohibited.

   b. Storage of other material or equipment may be allowed if not subject to major damage by floods, if firmly anchored to prevent flotation, or if readily removable from the area within the time available after a flood warning.

6. *Nonconforming Use*

   A structure, or the use of a structure or premises that was lawful before the passage or amendment of the ordinance, but which is not in conformity with the provisions of this ordinance, may be continued subject to the following conditions:

   a. If such structure, use, or utility service is discontinued for twelve (12) consecutive months,

any future use of the building shall conform to this ordinance.

b. If any nonconforming use or structure is destroyed by any means, including flood, it shall not be reconstructed if the cost is more than 50 percent of the pre-damaged market value of the structure. This limitation does not include the cost of any alteration to comply with existing state or local health, sanitary, building, safety codes, regulations or the cost of any alteration of a structure listed on the National Register of Historic Places, the State Inventory of Historic Places, or local inventory of historic places upon determination.

7. *Accessory Structures*

Structures used solely for parking and limited storage purposes, not attached to any other structure on the site, of limited investment value, and not larger than 400 square feet, may be constructed at-grade and wet-floodproofed provided there is no human habitation or occupancy of the structure; the structure is of single-wall design; a variance has been granted from the standard floodplain management requirements of this ordinance; and a floodplain development permit has been issued.

SECTION B. SPECIFIC STANDARDS

1. In all areas identified as numbered and unnumbered A zones and AE zones, where **base flood elevation** data have been provided, as set forth in Article 4, Section A(2), the following provisions are required:

a. *Residential Construction*

New construction or substantial improvement of any residential structures, including manufactured homes, shall have the lowest floor, including basement, elevated to one (1) foot above base flood elevation.

b. *Non-Residential Construction*

New construction or substantial improvement of any commercial, industrial, or other non-residential structures, including manufactured homes, shall have the lowest floor, including basement, elevated to one (1) foot above the base flood elevation or, together with attendant utility and sanitary facilities, be floodproofed so that below the base flood elevation the structure is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy. A registered professional engineer or architect shall certify that the standards of this subsection are satisfied. Such certification shall be provided to the Floodplain Administrator as set forth in Article 3, Section C(9).

c. Require, for all new construction and substantial improvements that fully enclosed areas below lowest floor used solely for parking of vehicles, building access, or storage in an area other than a basement and 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 architect or meet or exceed the following minimum criteria:

(1) 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; and

(2) the bottom of all opening shall be no higher than one foot above grade. Openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

SECTION C. MANUFACTURED HOMES

1. All manufactured homes to be placed within all unnumbered and numbered A zones and AE zones, on the community's FIRM shall be required to be installed using methods and practices that minimize flood damage. For the purposes of this requirement, manufactured homes must be elevated and anchored to resist flotation, collapse, or lateral movement. Methods of anchoring may include, but are not limited to, use of over-the-top or frame ties to ground anchors.

2. Require manufactured homes that are placed or substantially improved within unnumbered or numbered A zones and AE zones, on the community's FIRM on sites:

   a. outside of manufactured home park or subdivision;

   b. in a new manufactured home park or subdivision;

   c. in an expansion to and existing manufactured home park or subdivision; or

   d. in an existing manufactured home park or subdivision on which a manufactured home has incurred substantial damage as the result of a flood,

   be elevated on a permanent foundation such that the lowest floor of the manufactured home is elevated to one (1) foot above the base flood elevation and be securely attached to an adequately anchored foundation system to resist flotation, collapse, and lateral movement.

3. Require that manufactured homes to be placed or substantially improved on sites in an existing manufactured home park or subdivision within all unnumbered and numbered A zones and AE zones, on the community's FIRM, that are not subject to the provisions of Article 4, Section C(2) of this ordinance, be elevated so that either:

   a. the lowest floor of the manufactured home is at least one (1) foot above the base flood level; or

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

SECTION D. FLOODWAY

Located within areas of special flood hazard established in Article 2, Section A are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of flood waters that carry debris and potential projectiles, the following provisions shall apply:

1. The community shall select and adopt a regulatory floodway based on the principle that the area chosen for the regulatory floodway must be designed to carry the waters of the base flood without increasing the water surface elevation of that flood at any point.

2. The community shall prohibit any encroachments, including fill, new construction, substantial-improvements, and other development within the adopted regulatory floodway unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment would not result in **any** increase in flood levels within the community during the occurrence of the base flood discharge.

3. If Article 4, Section D(2) is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of Article 4.

4. In unnumbered A zones, the community shall obtain, review, and reasonably utilize any base flood elevation or floodway data currently available from Federal, State, or other sources as set forth in Article 4, Section A(2).

SECTION E. RECREATIONAL VEHICLES

1. Require that recreational vehicles placed on sites within all unnumbered and numbered A zones and AE zones on the community's FIRM either:

    a. be on the site for fewer than 180 consecutive days,

    b. be fully licensed and ready for highway use; **or**

    c. meet the permitting, elevation, and the anchoring requirements for manufactured homes of this ordinance.

SECTION F. ADDITIONAL REQUIREMENTS

1. Any owner or developer desiring to do any construction in the flood plain, including the floodway and floodway fringe areas thereof, or to for any other work of any kind or description which makes any changes in said areas must do such work in a manner that will result in no increase in water surface elevation (equal to or less than 0.00 feet) and no increase in mean flow velocity (equal to or less than 0.00 feet per second). The following methods of determining compliance are applicable:
    a. The preliminary review method:
        i. Plans sufficient to describe the project and enable evaluation thereof must be filed with the City.
        ii. The local administrator shall review the proposed work on a "best judgment" basis for the purpose of determining whether a probability exists that the proposed work will not cause a result which violates the requirements of Article 4 Section F (1).
        iii. If the local administrator reports his opinion that the work is not likely to cause a violation of said requirements, then a permit may be issued. If the local administrator reports otherwise, then the procedure set out in Part b herein shall be followed.
        iv. The procedure set out in this Part a and its subparts are intended to eliminate unnecessary hardship. The preliminary review required herein is necessarily limited so as to limit cost to residents. Neither the local administrator providing the opinion nor the City shall not be liable to anyone because of errors arising in connection with such opinion.
    b. Unless excused by the preliminary review method described in Part a, the owner or developer must do the following:
        i. The owner or developer shall deposit with the City $1,500.00 to be applied towards the cost of the engineering review described herein. If said cost exceeds the amount

of the deposit, the owner or developer shall reimburse the City for additional cost incurred. Any amount not expended shall be refunded to the owner or developer. When such deposit is made, notice shall be given to all owners of property located within 500 feet of the property where the work is planned, and any person may request that they be given a copy of the engineering report when it is completed.

ii. Obtain a topographical survey performed by a registered land surveyor to determine all existing and proposed elevations with respect to the property and properties affected by the work.

iii. With respect to any streams on which FEMA studies exist, furnish to the City from a registered professional engineer who is shown to be qualified and competent with respect to water and hydraulic problems, a HEC-RAS hydraulic analysis based on the aforesaid topographical survey information, a review of HEC-RAS analysis if the HEC-RAS exists for the stream in question, and a certification that the proposed work will comply with the standards set forth herein.

iv. With respect to any streams which are not the subject of FEMA studies, the owner or developer must provide a hydraulic analysis by a registered professional engineer who is shown to be qualified and competent with respect to water and hydraulic problems certifying that the proposed development will comply with the standards set forth herein for construction in the flood plain.

v. The qualifications of the certifying engineer must be approved as adequate in accordance with the standards herein, and the said analysis and certification must be reviewed and approved as accurate by a registered engineer on behalf of the City.

vi. In addition, any such owner or developer must do the following:

1. Provide a study by a registered professional engineer with respect to scouring or washout of the channel and erosion of the banks as a result of any changes in the channel or flood plain of the development, together with a plan from such engineer for channel and bank protection which will prevent such problems in the future.
2. Upon approval of the City of such plan, provide the protection called for.
3. Enter into an agreement with the City in the form of a Covenant which will run with the land which will bind all present and future owners to be responsible for maintenance of all channel and bank protection devices provided by such owner or developer and further such agreement will require the owner to: (a) keep the channel free of siltation, and (b) replace any scoured or washed out areas of the channel. Such maintenance will be performed any time it is reasonably required and at least annually. Such agreement will be endorsed on any development plat at the time of approval.

ARTICLE 5 FLOODPLAIN MANAGEMENT VARIANCE PROCEDURES

SECTION A. ESTABLISHMENT OF APPEAL BOARD

The Board of Adjustment as established by the City of Ladue shall hear and decide appeals and requests for variances from the floodplain management requirements of this ordinance.

SECTION B. RESPONSIBILITY OF APPEAL BOARD

Where an application for a floodplain development permit or request for a variance from the floodplain management regulations is denied by the Building Official, the applicant may apply for such floodplain development permit or variance directly to the Board of Adjustment, as defined in Article 5, Section A.

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 Building Official in the enforcement or administration of this ordinance.

SECTION C. FURTHER APPEALS

Any person aggrieved by the decision of the Board of Adjustment or any taxpayer may appeal such decision to the St. Louis County Circuit Court as provided in RSMo 89.110.

SECTION D. FLOODPLAIN MANAGEMENT VARIANCE CRITERIA

In passing upon such applications for variances, the Board of Adjustment shall consider all technical data and evaluations, all relevant factors, standards specified in other sections of this ordinance, and the following criteria:

1. the danger to life and property due to flood damage;

2. the danger that materials may be swept onto other lands to the injury of others;

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

4. the importance of the services provided by the proposed facility to the community;

5. the necessity to the facility of a waterfront location, where applicable;

6. the availability of alternative locations, not subject to flood damage, for the proposed use;

7. the compatibility of the proposed use with existing and anticipated development;

8. the relationship of the proposed use to the comprehensive plan and floodplain management program for that area;

9. the safety of access to the property in times of flood for ordinary and emergency vehicles;

10. the expected heights, velocity, duration, rate of rise and sediment transport of the flood waters, if applicable, expected at the site; and,

11. the costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical, and water systems; streets; and bridges.

SECTION E. CONDITIONS FOR APPROVING FLOODPLAIN MANAGEMENT VARIANCES

1. Generally, variances may be issued for new construction and substantial improvements to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level, providing items 2 through 6 below have been fully considered. As the lot size increases beyond the one-half acre, the technical justification required for issuing the variance increases.

2. Variances may be issued for the reconstruction, rehabilitation, or restoration of structures listed on the National Register of Historic Places, the State Inventory of Historic Places, or local inventory of historic places upon determination provided the proposed activity will not preclude the structures continued historic designation.

3. Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.

4. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.

5. Variances shall only be issued upon (a) a showing of good and sufficient cause, (b) a determination that failure to grant the variance would result in exceptional hardship to the applicant, and (c) a determination that the granting of a 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 laws or ordinances.

6. A community shall notify the applicant in writing over the signature of a community official that (1) the issuance of a variance to construct a structure below base flood level will result in increased premium rates for flood insurance up to amounts as high as $25.00 for $100.00 of insurance coverage and (2) such construction below the base flood level increases risks to life and property. Such notification shall be maintained with the record of all variance actions as required by this ordinance.

SECTION F. CONDITIONS FOR APPROVING VARIANCES FOR ACCESSORY STRUCTURES

Any variance granted for an accessory structure shall be decided individually based on a case by case analysis of the building's unique circumstances. Variances granted shall meet the following conditions as well as those criteria and conditions set forth in Article 5, Sections D and E of this ordinance.

In order to minimize flood damages during the 100-year flood and the threat to public health and safety, the following conditions shall be included for any variance issued for accessory structures that are constructed at-grade and wet-floodproofed.

1. Use of the accessory structures must be solely for parking and limited storage purposes in zone A only as identified on the community's Flood Insurance Rate Map (FIRM).

2. For any new or substantially damaged accessory structures, the exterior and interior building components and elements (i.e., foundation, wall framing, exterior and interior finishes, flooring, etc.) below the base flood elevation, must be built with flood-resistant materials in accordance with Article 4, Section A (4)(b) of this ordinance.

3. The accessory structures must be adequately anchored to prevent flotation, collapse, or lateral movement of the structure in accordance with Article 4, Section A (4)(a) of this ordinance. All of the building's structural components must be capable of resisting specific flood-related forces including hydrostatic, buoyancy, and hydrodynamic and debris impact forces.

4. Any mechanical, electrical, or other utility equipment must be located above the base flood elevation or floodproofed so that they are contained within a watertight, floodproofed enclosure that is capable of resisting damage during flood conditions in accordance with Article 4, Section A (4)(d) of this ordinance.

5. The accessory structures must meet all National Flood Insurance Program (NFIP) opening requirements. The NFIP requires that enclosure or foundation walls, subject to the 100-year flood, contain

openings that will permit the automatic entry and exit of floodwaters in accordance with Article 4, Section B (1)(c) of this ordinance.

6. The accessory structures must comply with the floodplain management floodway encroachment provisions of Article 4, Section D(2) of this ordinance. No variances may be issued for accessory structures within any designated floodway, if any increase in flood levels would result during the 100-year flood.

7. Equipment, machinery, or other contents must be protected from any flood damage.

8. No disaster relief assistance under any program administered by any Federal agency shall be paid for any repair or restoration costs of the accessory structures.

9. A community shall notify the applicant in writing over the signature of a community official that (1) the issuance of a variance to construct a structure below base flood level will result in increased premium rates for flood insurance up to amounts as high as $25.00 for $100.00 of insurance coverage and (2) such construction below the base flood level increases risks to life and property. Such notification shall be maintained with the record of all variance actions as required by this ordinance.

10. Wet-floodproofing construction techniques must be reviewed and approved by the community and registered professional engineer or architect prior to the issuance of any floodplain development permit for construction.

ARTICLE 6 PENALTIES FOR VIOLATION

Violation of the provisions of this ordinance or failure to comply with any of its requirements (including violations of conditions and safeguards established in connection with granting of variances) shall constitute a civil violation. Any person who violates this ordinance or fails to comply with any of its requirements shall, upon conviction thereof, be fined not more than $ 500.00, and in addition, shall pay all costs and expenses involved in the case. Each day such violation continues shall be considered a separate offense. Nothing herein contained shall prevent the City of Ladue or other appropriate authority from taking such other lawful action as is necessary to prevent or remedy any violation.

ARTICLE 7 AMENDMENTS

The regulations, restrictions, and boundaries set forth in this ordinance may from time to time be amended, supplemented, changed, or appealed to reflect any and all changes in the National Flood Disaster Protection Act of 1973, provided, however, that no such action may be taken until after a public hearing in relation thereto, at which parties of interest and citizens shall have an opportunity to be heard. Notice of the time and place of such hearing shall be published in a newspaper of general circulation in the City of Ladue, and at least 20 days shall elapse between the date of this publication and the public hearing. A copy of such amendments will be provided to the Region VII office of the Federal Emergency Management Agency (FEMA). The regulations of this ordinance are in compliance with the National Flood Insurance Program (NFIP) regulations.

ARTICLE 8 DEFINITIONS

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

"100-year Flood" *see "base flood."*

"Accessory Structure" means the same as *"appurtenant structure."*

"Actuarial Rates" *see "risk premium rates."*

"Administrator" means the Federal Insurance Administrator.

"Agency" means the Federal Emergency Management Agency (FEMA).

"Agricultural Commodities" means agricultural products and livestock.

"Agricultural Structure" means any structure used exclusively in connection with the production, harvesting, storage, drying, or raising of agricultural commodities.

"Appeal" means a request for review of the Floodplain Administrator's interpretation of any provision of this ordinance or a request for a variance.

"Appurtenant Structure" means a structure that is on the same parcel of property as the principle structure to be insured and the use of which is incidental to the use of the principal structure.

"Area of Special Flood Hazard" is the land in the floodplain within a community subject to a one percent or greater chance of flooding in any given year.

"Base Flood" means the flood having a one percent chance of being equaled or exceeded in any given year.

"Basement" means any area of the structure having its floor subgrade (below ground level) on all sides.

"Building" *see "structure."*

"Chief Executive Officer" or "Chief Elected Official" means the official of the community who is charged with the authority to implement and administer laws, ordinances, and regulations for that community.

"Community" means any State or area or political subdivision thereof, which has authority to adopt and enforce floodplain management regulations for the areas within its jurisdiction.

"Development" means any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, levees, levee systems, mining, dredging, filling, grading, paving, excavation or drilling operations, or storage of equipment or materials.

"Elevated Building" means for insurance purposes, a non-basement building which has its lowest elevated floor raised above ground level by foundation walls, shear walls, posts, piers, pilings, or columns.

"Eligible Community" or "Participating Community" means a community for which the Administrator has authorized the sale of flood insurance under the National Flood Insurance Program (NFIP).

"Existing Construction" means for the purposes of determining rates, structures for which the *"start of construction"* commenced before the effective date of the FIRM or before January 1, 1975, for FIRMs effective before that date. *"Existing construction"* may also be referred to as *"existing structures."*

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

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

"Flood" or "Flooding" means a general and temporary condition of partial or complete inundation of normally dry land areas from (1) the overflow of inland and/or (2) the unusual and rapid accumulation or runoff of surface waters from any source.

"Flood Boundary and Floodway Map (FBFM)" means an official map of a community on which the Administrator has delineated both special flood hazard areas and the designated regulatory floodway.

Flood Elevation Determination" means a determination by the Administrator of the water surface elevations of the base flood, that is, the flood level that has a one percent or greater chance of occurrence in any given year.

"Flood Elevation Study" means an examination, evaluation and determination of flood hazards.

"Flood Fringe" means the area outside the floodway encroachment lines, but still subject to inundation by the regulatory flood.

"Flood Hazard Boundary Map (FHBM)" means an official map of a community, issued by the Administrator, where the boundaries of the flood areas having special flood hazards have been designated as (unnumbered or numbered) A zones.

"Flood Insurance Rate Map (FIRM)" means an official map of a community, on which the Administrator has delineated both the special flood hazard areas and the risk premium zones applicable to the community.

"Flood Insurance Study (FIS)" means an examination, evaluation and determination of flood hazards and, if appropriate, corresponding water surface elevations.

"Floodplain" or "Flood-prone Area" means any land area susceptible to being inundated by water from any source *(see "flooding").*

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

"Floodplain Management Regulations" means zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances (such as floodplain and grading ordinances) and other applications of police power. The term describes such state or local regulations, in any combination thereof, that provide standards for the purpose of flood damage prevention and reduction.

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

"Floodway" or "Regulatory Floodway" means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot.

"Floodway Encroachment Lines" means the lines marking the limits of floodways on Federal, State and local floodplain maps.

"Freeboard" means a factor of safety usually expressed in feet above a flood level for purposes of floodplain management. *"Freeboard"* tends to compensate for the many unknown factors that could contribute to flood heights greater than the height calculated for a selected size flood and floodway conditions, such as bridge openings and the hydrological effect of urbanization of the watershed.

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

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

"Historic Structure" means any structure that is (a) listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register; (b) 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; (c) 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 (d) individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either (1) by an approved state program as determined by the Secretary of the Interior or (2) directly by the Secretary of the Interior in states without approved programs.

"Lowest Floor" means the lowest floor of the lowest enclosed area, including basement. An unfinished or flood-resistant enclosure, usable solely for parking of vehicles, building access, or storage, in an area other than a basement area, is not considered a building's lowest floor, **provided** that such enclosure is not built so as to render the structure in violation of the applicable floodproofing design requirements of this ordinance.

"Manufactured Home" means a structure, transportable in one or more sections, that is built on a permanent chassis and is designed for use with or without a permanent foundation when attached to the required utilities. The term *"manufactured home"* **does not include** a *"recreational vehicle."*

"Manufactured Home Park or Subdivision" means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

"Map" means the Flood Hazard Boundary Map (FHBM), Flood Insurance Rate Map (FIRM), or the Flood Boundary and Floodway Map (FBFM) for a community issued by the Federal Emergency Management Agency (FEMA).

"Market Value" or "Fair Market Value" means an estimate of what is fair, economic, just and equitable value under normal local market conditions.

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

"New Construction" means, for the purposes of determining insurance rates, structures for which the *"start of construction"* commenced on or after the effective date of an initial FIRM or after December 31, 1974, whichever is later, and includes any subsequent improvements to such structures. For floodplain management purposes, *"new construction"* means structures for which the *"start of construction"* commenced on or after the effective date of the floodplain management regulations adopted by a community and includes any subsequent improvements to such structures.

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

"(NFIP)" means the National Flood Insurance Program (NFIP).

"Participating Community" also known as an *"eligible community,"* means a community in which the Administrator has authorized the sale of flood insurance.

"Person" includes any individual or group of individuals, corporation, partnership, association, or any other entity, including Federal, State, and local governments and agencies.

"Principally Above Ground" means that at least 51 percent of the actual cash value of the structure, less land value, is above ground.

"Recreational Vehicle" means a vehicle which is (a) built on a single chassis; (b) 400 square feet or less when measured at the largest horizontal projections; (c) designed to be self-propelled or permanently towable by a light- duty truck; and (d) designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

"Remedy A Violation" means to bring the structure or other development into compliance with Federal, State, or local floodplain management regulations; or, if this is not possible, to reduce the impacts of its noncompliance.

"Repetitive Loss" means flood-related damages sustained by a structure on two separate occasions during a 10-year period for which the cost of repairs at the time of each such flood event, equals or exceeds twenty-five percent of the market value of the structure before the damage occurred.

"Risk Premium Rates" means those rates established by the Administrator pursuant to individual community studies and investigations which are undertaken to provide flood insurance in accordance with Section 1307 of the National Flood Disaster Protection Act of 1973 and the accepted actuarial principles. *"Risk premium rates"* include provisions for operating costs and allowances.

"Special Flood Hazard Area" *see "area of special flood hazard."*

"Special Hazard Area" means an area having special flood hazards and shown on an FHBM, FIRM or FBFM as zones (unnumbered or numbered) A and AE.

"Start of Construction" includes substantial-improvements, and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition placement, or other improvements were within 180 days of the permit date. The ***actual start*** means either the first placement of permanent construction of a structure on a site, such as the pouring of slabs or footings, the installation of piles, the construction of columns, any work beyond the stage of excavation, or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling, the installation of streets and/or walkways, excavation for a basement, footings, piers, foundations, the erection of temporary forms, nor installation on the property of accessory structures, 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 a building, whether or not that alteration affects the external dimensions of the building.

"State Coordinating Agency" means that agency of the state government, or other office designated by the governor of the state or by state statute at the request of the Administrator to assist in the implementation of the National Flood Insurance Program (NFIP) in that state.

"Structure" means, for floodplain management purposes, a walled and roofed building, including a gas or liquid storage tank, that is principally above ground, as well as a manufactured home. *"Structure"* for insurance purposes, means a walled and roofed building, other than a gas or liquid storage tank that is principally above ground and affixed to a permanent site, as well as a manufactured home on a permanent foundation. For the latter purpose, the term includes a building while in the course of construction, alteration or repair, but does not include building materials or supplies intended for use in such construction, alteration or repair, unless such materials or supplies are within an enclosed building on the premises.

"Substantial-Damage" means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred. The term includes Repetitive Loss buildings (see definition).

For the purposes of this definition, "repair" is considered to occur when the first repair or reconstruction of any wall, ceiling, floor, or other structural part of the building commences.

The term does not apply to:

a.) Any project for improvement of a building required to comply with existing health, sanitary, or safety code specifications which have been identified by the Code Enforcement Official and which are solely necessary to assure safe living conditions, or

b.) Any alteration of a "historic structure" provided that the alteration will not preclude the structure's continued designation as a "historic structure", or

c.) Any improvement to a building.

"Substantial Improvement" means any combination of reconstruction, alteration, or improvement to a building, taking place during a 10 year period, in which the cumulative percentage of improvement equals or exceeds fifty percent of the current market value of the building. For the purposes of this definition, an improvement occurs when the first alteration of any wall, ceiling, floor, or other structural part of the building commences, whether or not that alteration affects the external dimensions of the building. This term includes structures, which have incurred "repetitive loss" or "substantial damage", regardless of the actual repair work done.

The term does not apply to:

a.) any project for improvement of a building required to comply with existing health, sanitary, or safety code specifications which have been identified by the Code Enforcement Official and which are solely necessary to assure safe living conditions, or

b.) Any alteration of a "historic structure" provided that the alteration will not preclude the structure's continued designation as a "historic structure." Or

c.) Any building that has been damaged from any source or is categorized as repetitive loss.

"Substantially improved existing manufactured home parks or subdivisions" is where the repair, reconstruction, rehabilitation or improvement of the streets, utilities and pads equals or exceeds 50 percent of the value of the streets, utilities and pads before the repair, reconstruction or improvement commenced.

"Variance" means a grant of relief by the community from the terms of a floodplain management regulation.

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

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

ARTICLE 9 CERTIFICATE OF ADOPTION

This Floodplain Management Ordinance for the community of the City of Ladue, Missouri.

ADOPTED AND APPROVED by the City Council of the City of Ladue, Missouri.

PASSED THIS 15th DAY OF DECEMBER 2014.

President, City Council

ADOPTED AND APPROVED THIS 15TH DAY OF DECEMBER 2014.

Nancy Spewak, Mayor

ATTEST:

Michael W. Wooldridge, City Clerk