

Sample Flood Damage Prevention Ordinance

COUNTY OF RABUN
STATE OF GEORGIA

ORDINANCE

**AN ORDINANCE ADOPTING
FLOOD DAMAGE PREVENTION
REGULATIONS OF THE CITY OF CLAYTON, GEORGIA**

WHEREAS; The Mayor and City Council of Clayton, Georgia, finds that the prevention of flooding is an urgent matter; and

WHEREAS; Notice has been provided and a public hearing has been held by the Mayor and City Council on this matter; and

NOW, THEREFORE, BET IT ORDAINED AND IT IS HEREBY ORDAINED by authority of the Mayor and City Council of the City of Clayton, Georgia, as follows:

1.

The following regulations known as the Flood Damage Prevention Ordinance are adopted:

Section 1. Short Title.

This Ordinance shall be known and may be cited as the Flood Damage Prevention Ordinance.

Section 2. Findings.

The flood hazard areas in the local jurisdictions are subject to periodic inundation which potentially 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. These flood losses are caused by the cumulative effect of obstructions in floodplains causing increases in flood heights and velocities, and by the occupancy in flood hazard areas by uses vulnerable to floods or hazardous to other lands which are inadequately elevated, floodproofed, or otherwise unprotected from flood damages.

Section 3. Purposes.

It is the purpose of this Ordinance to promote the public health, safety and general welfare and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:

- (a) Restrict or prohibit uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosions or in flood heights or velocities;
- (b) Require that uses vulnerable to floods, including facilities which serve such uses, be prevented from locating within flood plains and/or protected against flood damage at the time of initial construction;

- (c) Control the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of flood waters;
- (d) Control filling, grading, dredging and other development which may increase erosion or flood damage; and
- (e) Prevent or regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards to other lands.

Section 4. Objectives.

The objectives of this Ordinance are:

- (a) To protect human life and health;
- (b) To minimize expenditure of public money for costly flood control projects;
- (c) To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- (d) To minimize prolonged business interruptions;
- (e) To minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in flood plains;
- (f) To help maintain a stable tax base by providing for the sound use and development of flood prone areas in such a manner as to minimize flood blight areas; and
- (g) To insure that potential home buyers are notified that property is in a flood area.

Section 5. Definitions.

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

Addition to an existing building: Any walled and roofed expansion to the perimeter of a building in which the addition is connected by a common load-bearing wall other than a fire wall. Any walled and roofed addition which is connected by a fire wall or is separated by independent perimeter load-bearing walls is new construction.

Appeal: A request for a review of the Zoning Administrator's interpretation of any provision of this Ordinance.

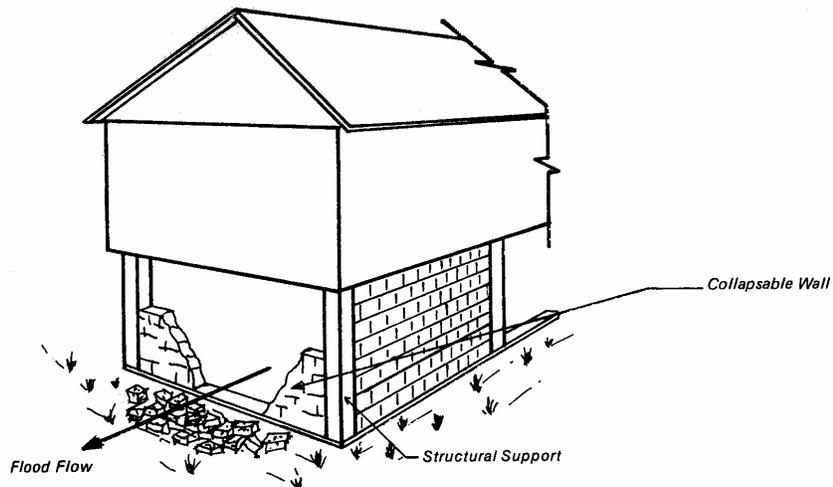
Area of shallow flooding: A designated AO or VO Zone on a community's Flood Insurance Rate Map (FIRM) with base flood depths from one (1) to three (3) feet where a clearly defined channel does not exist, where the path of flooding is unpredictable and indeterminate, and where velocity flow may be evident.

Area of special flood hazard: The land in the floodplain within a community subject to a one (1) percent or greater chance of flooding in any given year.

Base flood: The flood having a one (1) percent chance of being equaled or exceeded in any given year.

Basement: That portion of a building having its lowest floor subgrade (below ground level) on all sides.

Breakaway wall: A wall that is not part of the structural support of the building and is intended through its design and construction to collapse under specific lateral loading forces without causing damage to the elevated portion of the building or the supporting foundation system.

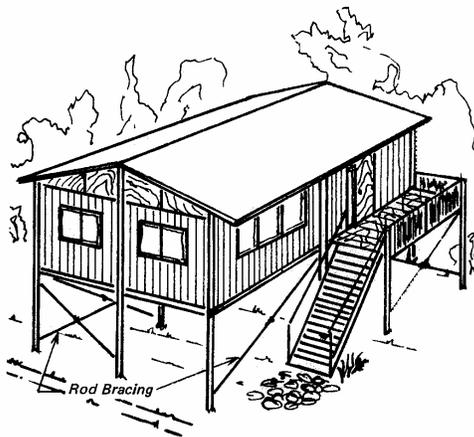


Source: U.S. Department of Housing and Urban Development, Federal Insurance Administration, National Flood Insurance Program. 1977. *Elevated Residential Foundations. Reducing Flood Damage Through Building Design: A Guide Manual.*

Building: Any structure built for support, shelter, or enclosure for any occupancy or storage.

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, excavating, drilling operations, or permanent storage of materials.

Elevated building: A non-basement building built to have the lowest floor elevated above the ground level by means of fill, solid foundation perimeter walls, pilings, columns, (posts and piers), shear walls, or breakaway walls.



Rod-Braced Post House



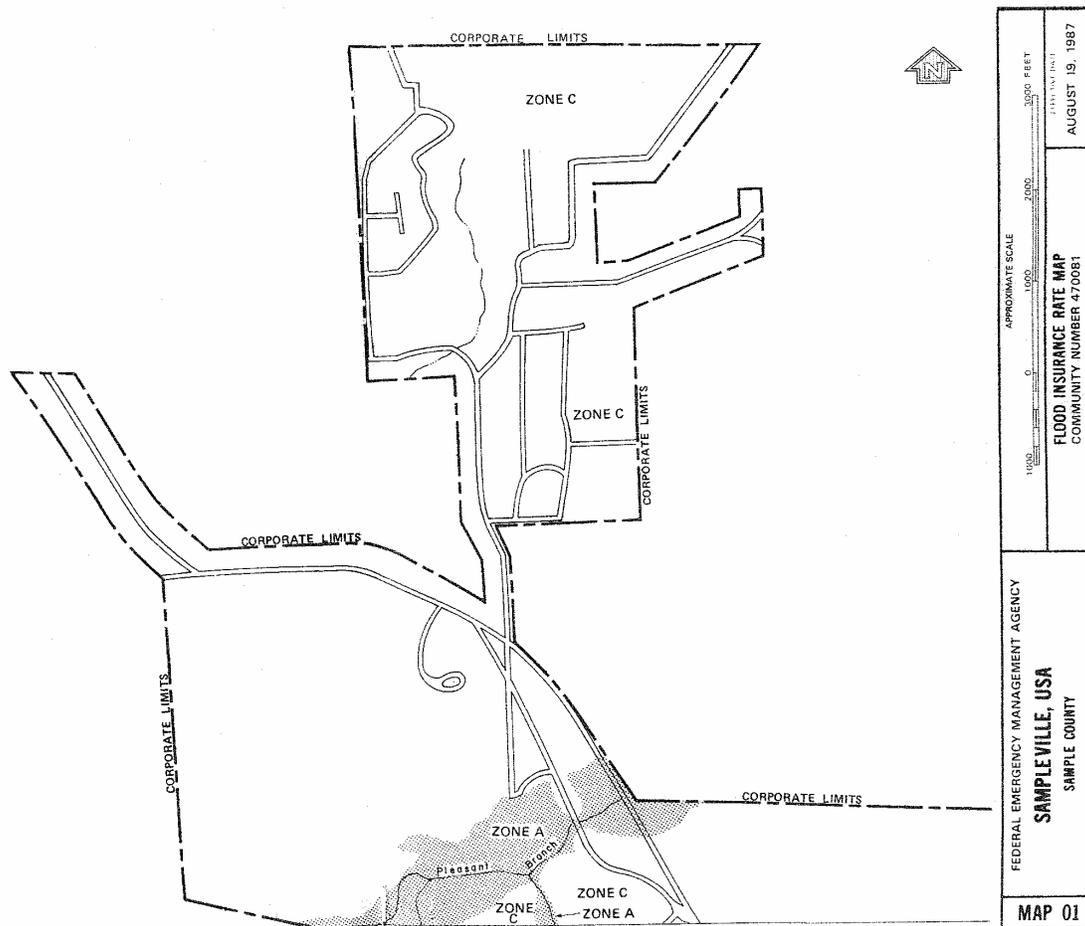
Shear Wall-Braced Post House

Source: U.S. Department of Housing and Urban Development, Federal Insurance Administration, National Flood Insurance Program. 1977. *Elevated Residential Foundations. Reducing Flood Damage Through Building Design: A Guide Manual.*

Flood or flooding: A general and temporary condition of partial or complete inundation of normally dry land areas from the overflow of inland or tidal waters or the unusual and rapid accumulation or runoff of surface waters from any source.

Flood Hazard Boundary Map (FHBM): An official map of a community, issued by the Federal Emergency Management Agency, where the boundaries of the areas of special flood hazard have been defined as Zone A.

Flood Insurance Rate Map (FIRM): An official map of a community, on which the Federal Emergency Management Agency has delineated both the areas of special flood hazard and the risk premium zones applicable to the community.

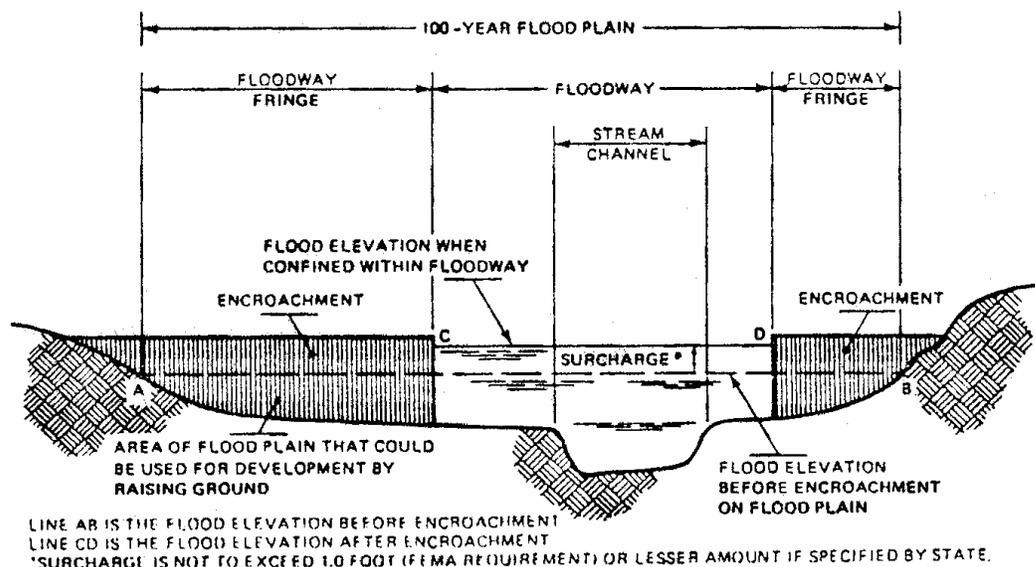


Illustrative Flood Insurance Rate Map

Source: Federal Emergency Management Agency. May 1988. Guide to Flood Insurance Rate Maps. Washington, DC: FEMA.

Flood Insurance Study: The official report provided by the Federal Emergency Management Agency. The report contains flood profiles, as well as the Flood Boundary Floodway Map and the water surface elevation of the base flood.

Floodway: The channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation. Floodways are identified on floodway maps for areas where such mapping has been completed. Floodways are extremely hazardous areas due to the velocity of floodwaters, the carrying of debris, and the capacity for severe erosion potential.



Floor: The top surface of an enclosed area in a building (including basement), i.e., top of slab in concrete slab construction or top of wood flooring in wood frame construction. The term does not include the floor of a garage used solely for parking vehicles.

Functionally dependent facility: A facility which cannot be used for its intended purpose unless it is located or carried out in close proximity to water, such as a docking or port facility necessary for the loading and unloading of cargo or passengers, shipbuilding, ship repair, or seafood processing facilities. The term does not include long-term storage, manufacture, sales, or service facilities.

Highest adjacent grade: The highest natural elevation of the ground surface, prior to construction, next to the proposed walls of a building.

Mean sea level: The average height of the sea for all stages of the tide. It is used as a reference for establishing various elevations within the floodplain. For purposes of this Article, the term is synonymous with National Geodetic Vertical Datum (NGVD).

National Geodetic-Vertical-Datum (NGVD): As corrected in 1929, a vertical control used as a reference for establishing varying elevations within the floodplain.

New construction: A building for which the "start of construction" commenced on or after the effective date of this Land Use Code.

Start of construction: Includes substantial improvement, and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, or improvement was within one hundred eighty (180) days of the permit date. The actual start means the first placement of permanent construction of a building on a site, such as the pouring of slabs or footings, installation of piles, construction of columns, or 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; 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 building.

Structure: A walled and roofed building that is principally above ground, a manufactured home, a gas or liquid storage tank, or other man-made facilities or infrastructure.

Substantial improvement: Any combination of repairs, reconstruction, alteration, or improvements to a building in which the cumulative cost equals or exceeds twenty percent (20%) of the market value of the building. The market value of the building should be the appraised value of the building prior to the start of the initial repair or improvement, or in the case of damage, the value of the building prior to the damage occurring. The term does not, however, include any project for improvement of a building required to comply with existing health, sanitary, or safety code specifications which are solely necessary to assure safe living conditions.

Variance: A grant of relief from the requirements of this Article which permits construction in a matter otherwise prohibited by this Article where specific enforcement would result in unnecessary hardship.

Section 6. Applicability.

This Ordinance shall apply to all areas of special flood hazard as defined by this Ordinance, as may be identified on the Flood Hazard Boundary Map, Flood Insurance Rate Map, or in the Flood Insurance Study as appropriate within the city.

Section 7. Adoption of Maps and Studies by Reference.

The areas of special flood hazards within participating municipalities identified by the Federal Emergency Management Agency in its Flood Hazard Boundary Maps, Flood Insurance Rate Maps, or in one or more Flood Insurance Studies, as appropriate, with accompanying maps and other supporting data, and any revision thereto, are hereby adopted by reference and declared to be a part of this Ordinance. When base flood elevation data or floodway data are not available, then the Zoning Administrator shall obtain, review, and reasonably utilize any base flood elevation and floodway data available from a federal, state, or other source, in order to administer the provisions of this Ordinance.

Section 8. Interpretation of Map Boundaries.

Where interpretation is needed as to the exact location of boundaries of the areas of special flood hazard (for example, where there appears to be a conflict between a mapped boundary and actual field conditions) the Zoning Administrator shall make the necessary interpretation

although the Zoning Administrator may require an applicant to submit best available data prior to making such a determination. Any person who desires to contest the interpretation by the Zoning Administrator of the location of any such boundary may appeal the interpretation of the Zoning Administrator as provided in the city zoning ordinance for appeal of administrative decisions.

Section 9. Permit Required.

No development activity shall commence within an area regulated by this Ordinance until and unless a development permit or building permit, or both if required, shall have been approved by the Zoning Administrator. No development activity shall be approved unless it conforms with the provisions of this Article prior to the commencement of any development activities. No building or structure shall be constructed within an area regulated by this Ordinance until and unless a development permit or building permit, or both if required shall have been approved by the Zoning Administrator. No building or structure shall be approved unless it conforms with the provisions of this Ordinance prior to the construction of said building or structure.

Section 10. Compliance.

No structure shall hereafter be located, extended, converted, or structurally altered, and no land shall be developed or occupied, unless it complies fully with the terms of this Ordinance and other applicable regulations.

Section 11. Application Requirements for Development.

Applications for approval of any development within an area regulated by this Ordinance shall be made to the Zoning Administrator on forms furnished by him or her. Said application shall include plans drawn to scale showing the nature, location, dimensions, and elevations of the land, existing or proposed buildings or structures if any, proposed fill, and storage of materials, and drainage facilities. Additional requirements for site plans established in the city's zoning ordinance shall apply unless one or more submission requirements are waived by the Zoning Administrator.

Section 12. Application Requirements for New Construction.

Applications for approval of any building or structure within an area regulated by this Ordinance shall be made to the Zoning Administrator on forms furnished by him or her. At a minimum, the application shall include the following:

- (a) Elevations. If permitted within a flood plain, the elevation in relation to mean sea level of the proposed lowest floor (including basement) of all buildings.
- (b) Flood-proofing certificate. In the case of a building that is required to be flood-proofed by this Ordinance, a certificate from a registered professional engineer or architect that the building to be flood-proofed will meet the flood-proofing requirements of this Ordinance.

Section 13. Elevation Certificate Required Prior to Building Occupancy.

No building shall be occupied until the requirements of this Section are met. After the lowest floor of a building is completed, after placement of the horizontal structural members of the

lowest floor, or upon placement of the lowest floor to be flood-proofed, whichever is applicable, it shall be the duty of the permit holder to submit to the Zoning Administrator a certification of the as-built elevation in relation to mean sea level of the lowest floor, the elevation of the lowest portion of the horizontal structural members of the lowest floor, or a flood-proofed elevation, whichever is applicable. Said certificate shall be prepared by or under the direct supervision of a registered land surveyor or professional engineer and certified by same. Upon submittal of any required elevation certificate, the Zoning Administrator shall review the floor elevation certificate for compliance with this Article. The permit holder immediately and prior to authorization to proceed with further work shall correct any deficiencies detected by such review. Failure to submit the elevation certificate or failure to make any corrections required by the Zoning Administrator shall be cause for issuing a stop-work order on the project.

Section 14. Floodways.

Encroachments, including fill, new construction, substantial improvements, or any other development, structure, or building, shall be prohibited.

Section 15. General Regulations for Construction.

New habitable buildings or structures and related development or facilities in all areas of special flood hazard shall be prohibited. In all areas of special flood hazard, any alteration, repair, reconstruction, or improvements to an existing building in an area of special flood hazard shall meet the requirements of this Section.

- (a) They shall be anchored to prevent floatation, collapse or lateral movement of the structure.
- (b) They shall be constructed with materials and utility equipment resistant to flood damage, and by methods and practices that minimize flood damage.
- (c) Electrical, heating, ventilation, plumbing, air conditioning equipment, and other service facilities shall be designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.
- (d) New and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system.
- (e) New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters.
- (f) On-site waste disposal systems shall be located and constructed to avoid impairment to them or contamination from them during flooding. On-site waste disposal systems for new dwellings shall be prohibited in all areas of special flood hazard.

Section 16. Requirements for Elevating Residential Buildings.

In all areas of special flood hazard where base flood elevation data have been provided, substantial improvements of any residential building which existed in an area of special flood hazard at the time of adoption of this Ordinance shall have the lowest floor, including basement, elevated no lower than two (2) feet above the base flood elevation. If solid foundation perimeter walls are used to elevate a residential building (substantial improvement), openings sufficient to facilitate the unimpeded movements of flood water shall be provided as required by this Ordinance.

Section 17. Requirements for Elevating Non-residential Buildings.

In all areas of special flood hazard where base flood elevation data have been provided, substantial improvements of any institutional, commercial, industrial, or other non-residential building which existed in an area of special flood hazard at the time of adoption of this Ordinance shall have the lowest floor, including basement, elevated no lower than two (2) feet above the level of the base flood elevation. Substantial improvement of existing buildings located in all A-zones may be flood-proofed in lieu of being elevated as required by this Section, provided that all areas of the substantial improvement below the required elevation are water tight with walls substantially impermeable to the passage of water, and use structural components having the capability of resisting hydrostatic and hydrodynamic loads and the effect of buoyancy. A registered professional engineer or architect shall certify that the standards of this Section are satisfied. Such certification shall be provided to the Zoning Administrator.

Section 18. Requirements for Fully Enclosed Areas Below the Base Flood Elevation.

Substantial improvements of elevated buildings which existed in an area of special flood hazard at the time of adoption of this Ordinance that include fully enclosed areas formed by foundation and other exterior walls below the base flood elevation shall not be designed or used as finished space. In addition, said fully enclosed areas shall be designed to allow for the entry and exit of floodwaters to automatically equalize hydrostatic flood forces on exterior walls, in accordance with the following requirements:

- (a) A minimum of two (2) openings having a total net area of not less than one (1) square inch for every square foot of enclosed area subject to flooding shall be provided.
- (b) The bottom of all openings shall be no higher than one (1) foot above grade.
- (c) Openings may be equipped with screens, louvers, valves or other coverings or devices provided they permit the automatic flow of floodwaters in both directions.
- (d) Access to the enclosed area shall be the minimum necessary to allow for parking of vehicles (garage door) or limited storage of maintenance equipment used in connection with the premises (standard exterior door) or entry to the living area (stairway or elevator).
- (e) The interior portion of such enclosed area shall not be partitioned or finished into separate rooms.
- (f) A professional engineer or architect shall certify that the designs of substantial improvements regulated by this Ordinance, which includes fully enclosed area formed by foundation and other exterior walls below the base flood elevation, complies with the requirements of this Section, prior to occupancy of the substantial improvement.

Section 19. Requirements for Streams Without Established Base Flood Elevation and/or Floodways.

There are certain areas of special flood hazard where small streams exist but where no base flood data have been provided or where no floodways have been provided. In such areas, a determination shall be made by a registered professional engineer of the best available estimate of the flood elevation.

No encroachments shall be allowed except for substantial improvements of existing buildings and structures which existed in said area of special flood hazard on the effective date of this Ordinance. Approval for substantial improvements to existing buildings and structures which existed in said area of special flood hazard on the effective date of this Ordinance shall only be permitted if certification by a registered professional engineer is provided and approved by the Zoning Administrator, demonstrating that such encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge. Substantial improvements of buildings which existed on the effective date of this Ordinance within such areas shall be elevated or flood-proofed to elevations established by this Ordinance.

Section 20. Requirements for Areas of Shallow Flooding (AO Zones).

Located within the areas of special flood hazard are areas designated as shallow flooding areas. These areas have special flood hazards associated with base flood depths of one (1) to three (3) feet where a clearly defined channel does not exist and where the path of flooding is unpredictable and indeterminate. In such areas the following regulations shall apply:

- (a) Residential buildings. No encroachments shall be allowed except for substantial improvements of existing buildings and structures which existed in said area of shallow flooding on the effective date of this Ordinance. All substantial improvements of residential buildings which existed in said area of shallow flooding on the effective date of this Ordinance shall have the lowest floor, including basement, elevated to a height of one (1) foot above the elevation of shallow flooding.
- (b) Nonresidential buildings. No encroachments shall be allowed except for substantial improvements of existing buildings and structures which existed in said area of shallow flooding on the effective date of this Ordinance. Substantial improvements of non-residential buildings which existed in said area of shallow flooding on the effective date of this Ordinance shall have the lowest floor, including basement, elevated to a height of one (1) foot above the elevation of shallow flooding. In addition, any attendant utility and sanitary facilities shall be completely flood-proofed to or above that level so that any space below that level 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.

Section 21. Variances Authorized.

The Mayor and City Council of the City of Clayton (i.e., the Governing Body) shall have authority to hear and decide any requests for variances from the requirements of this Ordinance. Upon consideration of the criteria for approving variances as provided by this Ordinance, the Governing Body may approve or deny applications for variances. The Governing Body may attach such conditions to the granting of variances as it deems necessary to further the purpose of this Ordinance.

Section 22. Criteria for Approving Variances.

In ruling on applications for variances, the Governing Body shall consider all technical evaluations, all relevant factors, all regulations specified in this Ordinance, and the following criteria:

- (a) The danger that materials may be swept onto other lands to the injury of others;
- (b) The danger to life and property due to flooding or erosion damage;
- (c) The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
- (d) The importance of the services provided by the proposed facility to the community;
- (e) The necessity of the facility to a waterfront location, in the case of a functionally dependent facility;
- (f) The availability of alternative locations, not subject to flooding or erosion damage, for the proposed use;
- (g) The compatibility of the proposed use with existing and anticipated development;
- (h) The relationship of the proposed use to the comprehensive plan and flood plain management program for that area;
- (i) The safety of access to the property in times of flood for ordinary and emergency vehicles;
- (j) The expected height, velocity, duration, rate of rise and sediment transport of the flood waters and the effects of wave action, if applicable, expected at the site, and;
- (k) The costs of providing governmental services during and after flood conditions including maintenance and repair of public utilities and facilities such as sewer, gas, electrical and water systems, and streets and bridges.

Section 23. Additional Limitations on Variances.

- (a) Variances shall not be issued for building, structures, or other encroachment within any designated floodway if any increase in flood levels during the base flood discharge would result.
- (b) Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief; and in the instance of a historical building, a determination that the variance is the minimum necessary so as not to destroy the historic character and design of the building.
- (c) Variances shall only be issued upon a showing of good and sufficient cause, a determination that failure to grant the variance would result in exceptional hardship, and a determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create a nuisance, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances.

Section 24. Requirements When Variances are Granted.

Any applicant to whom a variance is granted shall be given written notice by the Zoning Administrator specifying the exact provisions of this Ordinance varied along with a determination of the difference between the base flood elevation and the elevation to which the building or substantial improvement is to be built, and stating that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation if applicable. The Zoning Administrator shall maintain the records of all variances and submit them to the Federal Emergency Management Agency upon request.

Section 25. Administration and Duties of the Zoning Administrator.

This Ordinance shall be administered by the Zoning Administrator. The Zoning Administrator shall have the following duties in connection with the administration of this Ordinance:

- (a) Review all permit applications to assure that the permit requirements of this Ordinance have been satisfied.
- (b) Advise applicants that additional federal or state permits may be required, and if specific federal or state permit requirements are known, require that copies of such permits be provided and maintained on file with the locally approved permit.
- (c) Notify adjacent affected communities and the Georgia Department of Natural Resources prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Emergency Management Agency.
- (d) Assure that maintenance is provided within the altered or relocated portion of said watercourse so that the flood-carrying capacity is not diminished.
- (e) Receive and review elevation certificates and floodproofing certificates for all new or substantially improved buildings, for compliance with this Ordinance.
- (f) Interpret the provisions of this Ordinance. In the interpretation and application of this Ordinance all provisions shall be considered as minimum requirements. They shall be liberally construed in favor of the governing body with jurisdiction, and the provisions of this Ordinance shall not be deemed to limit or repeal any other powers granted under state statutes.
- (g) Maintain all records pertaining to the provisions of this Ordinance, which shall be open for public inspection.

Section 26. Warning and Disclaimer of Liability.

The degree of flood protection required by this Ordinance is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. This Ordinance does not imply that land outside the areas of special flood hazard or uses permitted within such areas will be free from flooding or flood damages. This Ordinance shall not create liability on the part of the city or by any officer or employee thereof for any flood damages that result from reliance on this Ordinance or any administrative decision lawfully made under its terms.

2.

All ordinances, parts of ordinances, or regulations in conflict herewith are repealed.

3.

Should any section of this ordinance be declared invalid or unconstitutional by any court of competent jurisdiction, such declaration shall not affect the validity of the ordinance as a whole or any part thereof which is not specifically declared to be invalid or unconstitutional.

4.

It is the intention of the Mayor and City Council, and it is hereby ordained that the provisions of this ordinance shall become and be made a part of the code of ordinances of the City of Clayton, Georgia, and the sections of this Ordinance may be renumbered to accomplish such intention.

5.

The above Ordinance was read and approved by the Mayor and City Council of Clayton, Georgia on the __ day of _____, 2005. This Ordinance shall become effective immediately upon its adoption, the public welfare demanding it.

Attest:

Mayor, City of Clayton, Georgia

City Clerk