ORDINANCE NO. 1995

AN ORDINANCE OF THE CITY OF REDLANDS AMENDING CHAPTER 47 OF THE REDLANDS ORDINANCE CODE RELATING TO FLOOD DAMAGE PREVENTION

WHEREAS, the flood hazard areas of the City of Redlands are subject to periodic 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 adverse'y affect the public health, safety and general welfare; and

WHEREAS, these flood losses are caused by the cumulative effect of obstructions in the areas of special flood hazard which increase flood heights and velocities, and when inadequately anchored, flood proofed, elevated or otherwise protected from flood damage, also contribute to the flood loss; and

WHEREAS, the Federal Emergency Management Agency
has promulgated rules and regulations for floodplain
management which the City is obligated to adopt pursuant to
its status as a participant in the National Flood Insurance
Program;

THE CITY COUNCIL OF THE CITY OF REDLANDS does ordain:

Section 1: Chapter 47 of the Redlands Ordinance Code is hereby deleted in its entirety and revised to read as follows:

"CHAPTER 47

ARTICLE 470

FLOOD DAMAGE PREVENTION

47001. Purpose. It is the purpose of this Chapter to promote the public health, safety and welfare and to minimize public and private losses due to flood conditions in specific areas by establishing requirements and restrictions designed to protect human life and health, minimize expenditure of public money for costly flood control projects and damage to public facilities and utilities, maintain a stable tax base by providing for the second use and development of areas of special hazards so as to minimize future flood blight areas and ensure that potential buyers are notified that property is in an area of special flood hazard.

ARTICLE 471

DEFINITIONS

47101. <u>Definitions</u>. The following words shall have the following meanings ascribed to them:

"Appeal" shall mean a request for a review of the Chief Building Officer's interpretation of any provision of this Chapter or a request for a variance.

"Area of Shallow Flooding" shall mean a designated AH zone on the flood insurance rate map (FIRM) where the base flood depths range from 1 to 3 feet, a clearly defined channel does not exist, the path of flooding is unpredictable and indeterminate and velocity flow may be evident.

"Base Flood" shall mean the flood having a 1% chance of being equaled or exceeded in any given year (also called the "100-year flood").

"Basement" shall mean any area of the building having its floor subgrade (below ground level) on all sides.

"Breakaway Walls" shall mean any type of wall, whether solid or lattice, and whether constructed of concrete, masonry, wood, metal, plastic or any other suitable building material which is not part of the structural support of the building and which is designed to breakaway under abnormally high tides or wave action without causing any damage to the structural integrity of the building on which it is used or any buildings to which it might be

carried by flood waters. A breakaway wall shall have a safe design loading resistance of not less than ten and no more than twenty pounds per square foot. Use of breakaway walls shall be certified by a registered engineer or architect and shall meet the following conditions:

- Breakaway wall collapse shall result from a waterload less than that which would occur during the baseflood; and
- 2. The elevated portion of the building shall not incur any structural damage due to the effects of wind and water loads acting simultaneously in the event of the base flood.

"Development" shall mean any man-made change to improved or unimproved real estate including, but not limited to, buildings, structures, mining, dredging, filing, grading, paving, excavation or drilling operations.

"Flood or Flooding" means a general and temporary condition of partial or complete inundation of normally dry land areas from:

- 1. The overflow of floodwaters,
- The unusual and rapid accumulation or runoff of surface waters from any source, and/or
- 3. The collapse or subsidence of land along the shore of the lake or other body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels or suddenly caused by

any unusually high water level in a natural body of water, such as a severe storm, or by an unanticipated force of nature, such as a flash flood or an abnormal tidal surge, or by some similarly unusual and unforeseable event which results in flooding as defined in this section.

"Flood Boundary and Floodway Map" means the official map on which the Federal Emergency Management Agency or Federal Insurance Administration has delineated both the areas of flood hazard and the floodway.

"Flood Insurance Rate Map" means the official map on which the Federal Emergency Managment Agency or Federal Insurance Adminstration has delineated both the areas of special flood hazards and the risk of premium zones applicable to the community.

"Flood Insurance Study" means the official report provided by the Federal Insurance Administration that includes flood profiles, the FIRM, the flood boundary and floodway map and the water surface elevation of the base flood.

"Flood Plain or Flood Prone Area" means any land are a susceptible to being inundated by water from any source.

"Flood Plain 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 flood

plain management regulations.

"Flood Plain Management Regulations" means the City's zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances and other police power regulations.

"Flood Proofing" means any combination of structural and non-structural additions, changes, or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents.

"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 cummulatively increasing the water surface elevation more than one foot.

"Functionally Dependent Use" means the use which cannot perform its intended purpose unless it is located and carried out in close proximity to water.

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

"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 nonelevation design requirements of this Chapter.

"Manufactured Home" means a structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when connected to the required utilities. For floodplain management purposes the term "manufactured home" also includes park trailers, travel trailers and other similar vehicles placed on a site for greater than 180 consecutive days.

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

"New Construction" means structures for which the "start of construction" commenced on or after the effective date of this Chapter.

"100-Year Flood" means, a flood has a one percent
(1%) annual probability of being equaled or exceeded. It is
identical to the term "base flood," which is used throughout
this Chapter.

"Person" means an individual or his agent, firm, partnership, association or corporation, or agent of the aforementioned groups, the state, its agencies and political subdivisions.

"Remedy a Violation" means to bring a structure or other development into compliance with this Chapter or, if that is not possible, to reduce the impacts of its noncompliance. Ways that impacts may be reduced include protecting the structure or other affected development from flood damages, implementing the enforcement provisions of this Chapter or otherwise deterring future similar violations, or reducing Federal financial exposure with regard to the structure or other development.

"Riverine" means relating to, formed by, or resembling a river (including tributaries), stream or brook.

"Special Flood Hazard Area" means an area having special flood or flood-related erosion hazards, and shown on an FHBM or FIRM as Zone, AO, Al-30, AE, A99, OR AH.

"Start of Construction" includes substantial improvement, and means the date the building permit was issued; provided, the actual start of construction, repair, reconstruction, placement, or other improvement was within 180 days of the permit date. The "actual start" means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation or the placement of 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, the excavation of basements, 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.

"Structure" means a walled and roofed building, including a gas or liquid storage tank, that is principally above ground, including manufactured homes.

"Substantial Improvement" means any repair, reconstruction, or improvement of a structure, the cost of which equals or exceeds fifty percent (50%) of the market value of the structure either before the improvement or repair is started, or, if the structure has been damaged and is being restored, before the damage occurred. Substantial improvement is considered to occur 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 structure. The term does not however, include any project for improvement of a structure to comply with existing state or local health, sanitary, or safety code specifications which are solely necessary to assure safe living conditions or any alteration of a structure listed on the National Register of Historic Places or a State Inventory of Historic Places.

"Variance" means a grant of relief from the requirements of this Chapter which permits construction in a

manner that would otherwise be prohibited by this Chapter.

"Violation" means the failure of a structure or other development to comply with the provisions of this Chapter. A structure or other development without the elevation certificate, other certification, or other evidence of compliance required by this Chapter is presumed to be in violation until such time as that documentation is provided.

ARTICLE 472

GENERAL PROVISIONS

- 47201 LANDS TO WHICH THIS CHAPTER APPLIES.
 - This Chapter shall apply to all areas of special flood hazards, within the jurisdiction of the City.
- 47202 BASIS FOR ESTABLISHING THE AREAS OF SPECIAL FLOOD HAZARD.

The areas of special flood hazard identified by the Federal Emergency Management Agency or the Federal Insurance Administration in the report entitled "Flood Insurance Study for the City of Redlands" dated December 21, 1982, with the accompanying Flood Insurance Rate Map is hereby adopted by reference and declared to be a part of this Chapter. This Flood Insurance Study is the minimum

area of applicability of this Chapter and may be supplemented by studies for other areas which allow implementation of this Chapter and which are recommended to the City Council by the Chief Building Official.

47203 COMPLIANCE.

No structure or land shall hereafter be constructed, located, extended, converted, or altered without full compliance with the provisions of this Chapter. Violations of the provisions of this Chapter by failure to comply with any of its requirements (including violations of conditions and safeguards established in connection with conditions) shall constitute a misdemeanor.

Nothing herein shall prevent the City from taking any action necessary to prevent or remedy a violation.

47204 ABROGATION AND GREATER RESTRICTIONS.

This Chapter is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this Chapter and other ordinances, covenants, or deed restrictions conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

47205 INTERPRETATION.

In the interpretation and application of this Chapter, all provisions shall be considered as minimum requirements, liberally construed in favor of the City and deemed neither to limit nor repeal any other powers granted under state statutes.

47206 WARNING AND DISCLAIMER OF LIABILITY.

The degree of flood protection required by this Chapter is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on occasions and flood heights may be increased by man-made or natural causes. This Chapter does not imply that land outside the areas of special flood hazards, or uses permitted within such areas will be free from flooding or flood damages. This Chapter shall not create libility on the part of the City, any elected official, officer or employee thereof, or the Federal Insurance Administration for any flood damages that result from reliance on this Chapter or any administrative law made hereunder.

ARTICLE 473

ADMINISTRATION

47301 ESTABLISHMENT OF DEVELOPMENT PERMIT.

A development permit shall be obtained before construction or development begins within any area of special flood hazards. Application for a development permit shall be made on forms furnished by the Chief Building Official and may include, but not be limited to, plans in duplicate drawn to scale showing the nature, location, dimensions, and elevation of the area in question; existing or proposed structures, fill, storage of materials, drainage facilities and the location of the foregoing; provided, however, the following information is required:

- A. Proposed elevation in relation to mean sea level, of the lowest floor (including basement) of all structures; in zone AO or VO, elevation of highest adjacent grade and proposed elevation of lowest floor of all structures;
- B. Proposed elevation in relation to mean sea level to which any structure will be floodproofed; and

- C. Description of the extent to which any watercourse will be altered or relocated as a result of proposed development.
- OFFICIAL. The Chief Building Official shall administer and implement this Chapter by granting or denying development permits in accordance with its provisions.

The duties and responsibilities of the Chief
Building Official shall include, but not be limited
to:

A. Review permits to determine that the requirements of this Chapter have been satisfied, that all other required State and Federal permits have been obtained, that the site is reasonably safe from flooding and that the proposed development does not adversely affect the carrying capacity of the floodway. "Adversely affects" means 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 (1) foot at any point.

- B. When base flood elevation data has not been provided in accordance with Section 3.2, the Chief Building Official shall obtain, review, and utilize any base flood elevation and floodway data available from Federal, State or other sources, in order to administer Article 474.
- C. Notify adjacent communities and the California

 Department of Water Resources prior to the
 alteration or relocation of any watercourse,
 submit evidence of such notification to the
 Federal Insurance Administration and require
 that the flood carrying capacity of the
 altered or relocated portion of the
 watercourse is maintained.
- D. Obtain and maintain for public inspection and make available as needed all certifications required by this Chapter.
- E. Make interpretations, where needed, as to the exact location of the boundaries of the areas of special flood hazards (for example, where there appears to be a conflict between a mapped boundary and actual field conditions). Any person contesting the location of a boundary shall be given a reasonable opportunity to appeal the interpretation as

provided in Article 475.

F. Take action to remedy violations of this Chapter.

ARTICLE 474

PROVISIONS FOR FLOOD HAZARD REDUCTION

47401 STANDARDS OF CONSTRUCTION.

In all areas of special flood hazards the following standards are required:

A. Anchoring

- 1. All new construction and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy.
- All manufactured homes shall meet the anchoring standards of Section 47404.
- B. Construction Materials and Methods.
 - All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.
 - All new construction and substantial improvements shall be constructed using

- methods and practices that minimize flood damage.
- improvements shall be constructed with electrical, heating, ventilation, plumbing and air conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.
- 4. Within Zone AH, adequate drainage paths around structures on slopes to quide flood waters around and away from proposed structures.
- C. Elevation and Floodproofing
 - 1. New construction and substantial improvement of any structure shall have the lowest floor, including basement, elevated to or above the base flood elevation. Nonresidential structures may meet the standards in Section 47401 C 3. Upon the completion of the structure the elevation of the lowest floor including basement shall be certified by a registered professional engineer or surveyor,

- or verified by the Chief Building Official to be properly elevated.
- 2. New construction and substantial improvement of any structure in Zone AH shall have the lowest floor, including basement, elevated above the highest adjacent grade at least as high as the depth under specified in feet on the FIRM, or at least two feet if no depth number in specified. Nonresidential structures may meet the standards in Section 47401 C 3. Upon the completion of the structure, the elevation of the lowest floor including basement shall be certified by a registered professional engineer or surveyor, or by the Chief Building Official to be properly elevated.
- 3. Nonresidential construction shall either be elevated in conformance with Section 47401 C 1 or 47401 C 2 or together with attendant utility and sanitary facilities be floodproofed so that below the base flood level the structure is watertight with walls substantially impermeable to the passage of water, have structural components capable of resisting

hydrostatic and hydrodynamic loads and effects of buoyancy, and be certified by a registered professional engineer or architect that the standards of this subsection are satisfied. Such certifications shall be provided to the Chief Building Official.

- 4. Require, for all new construction and substantial improvements, that fully enclosed areas below the lowest floor that are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of flood waters. Designs for meeting this requirement shall either be certified by a registered professional engineer or architect or meet or exceed the following minimum criteria:
 - a. Either 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. The bottom of all
 openings shall be no higher than one (1)
 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 flood waters; or

- b. Be certified to comply with a local floodproofing standard approved by the Federal Insurance Administration.
- in Section 47404; provided, however, that any manufactured homes, including mobile homes, which were lawfully placed prior to the effective date of this Chapter and which were destroyed by fire, severe weather or acts of God, other than floods, may be replaced on piers and/or foundations as originally constructed on existing terrain.

47402 STANDARDS FOR UTILITIES

- A. All new and replacement water supply and sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the system and discharge from systems into flood waters.
- B. On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

47403 STANDARDS FOR SUBDIVISIONS.

- A. All preliminary subdivision proposals shall identify the flood hazard area and the elevation of the base flood.
- B. All final subdivision plans shall provide the elevation of proposed structure(s) and pads. If the site is filled above the base flood, the final pad elevation shall be certified by a registered professional engineer or surveyor and provided to the Chief Building Official.
- C. All subdivision proposals shall be consistent with the need to minimize flood damage.
- D. All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize flood damage.
- E. All subdivisions shall provide adequate drainage to reduce exposure to flood hazards.

47404 STANDARDS FOR MANUFACTURED HOMES.

All new and replacement manufactured homes and additions to manufactured homes shall be elevated so that the lowest floor is at or above the base flood elevation and be securely anchored to a permanent foundation system to resist flotation, collapse or lateral movement.

47405 FLOODWAYS

Located within areas of special flood hazard established in Section 47202 are areas designated as floodways. Because the floodway is an extremely hazardous area due to the velocity of flood waters which carry debris, potential projectiles, and erosion potential, the following provisions shall apply:

- A. Prohibit encroachments, including fill, new construction, substantial improvements, and other development unless certification by a registered professional engineer or architect is provided demonstrating that encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge.
- B. If Section 47405 is satisfied, all new construction and substantial improvements shall comply with all other applicable flood hazard reduction provisions of Article 474.

ARTICLE 475

VARIANCE PROCEDURE

47501 APPEAL BOARD

- A. The Planning Commission shall hear and decide the appeals and requests for variances from the requirements of this Chapter when it is alleged that there is an error in any requirement, decision or determination made by the Chief Building Official in the enforcement or administration of this Chapter. In passing upon such applications, the Planning Commission shall consider all technical evaluations, all relevant factors, standards specified in other provisions of this Chapter, and:
 - The danger that materials may be swept onto other lands to the injury of others;
 - The danger of life and property due to flooding or erosion damage;
 - 3. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
 - 4. The importance of the services provided by the proposed facility to the

community;

- 5. The necessity for the facility of a waterfront location, where applicable;
- 6. The availability of alternative locations for the proposed use which are not subject to flooding or erosion damage;
- 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 time of flood for ordinary and emergency vehicles;
- 10. The expected heights, velocity, duration, rate of rise, and sediment transport of the flood waters 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 system, and streets and bridges.

B. 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 continguous to and surrounded by lots with existing structures constructed below the base flood level, providing Sections 47501.1 through 47501.11 have been fully considered.

As the lot size increases beyond one-half acre, the technical justification required for issuing the variance increases.

Upon consideration of the factors listed in this section and the purposes of this Chapter, the Planning Commission may attach such conditions to the granting of variances as it deems necessary to further the purposes of this Chapter. The Chief Building Official shall maintain the records of all appeal actions and report any variances to the Federal Insurance Administration upon request.

47502 CONDITIONS FOR VARIANCES

- A. Variances may be issued for the reconstruction, rehabilitation or restoration of structures listed in the National Register of Historic Places or the State Inventory of Historic Places, without regard to the procedures set forth in the remainder of this section.
- B. Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.
- C. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.
- D. Variances shall be issued upon:
 - 1. A showing of good and sufficient cause;
 - 2. A determination that failure to grant the variance would result in exceptional hardship to the applicant; and
 - 3. A determination that the granting of a variance would 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.

- E. Variances may be issued for new construction and substantial improvements and for other development necessary for the conduct of a functionally dependent use provided that the provisions of this Article are satisfied and that the structure or other development is protected by methods that minimize flood damages during the base flood and create no additional threats to public safety.
- shall be given written notice that the structure will be permitted to be built with a lowest floor elevation below the regulatory flood elevation and that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation. A copy of the notice shall be recorded by the Chief Building Official in the office of the County Recorder for San Bernardino County and shall be recorded in a manner so that it appears in the chain of title to the affected parcel of land.

Section 3: This ordinance shall be in force and . take effect as provided by law.

Section 4: The City Clerk shall certify to the adoption of this ordinance and cause it, or a summary of it, to be published once in the Redlands Daily Facts, a newspaper of general circulation, printed and published in the City.

ATTEST:

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I, Lorrie Poyzer, City Clerk, City of Redlands, hereby certify that the foregoing ordinance was duly adopted by the City Council of the City of Redlands at a regular meeting thereof held on the 21st day of July 1987, by the following vote:

AYES:

Councilmembers Johnson, Wormser;

Mayor Pro Tem Larsen

NOES:

None

ABSENT:

Beswick, DeMirjyn

ABSTAINED:

DJM0166