

**BY AUTHORITY**

ORDINANCE NO. \_\_\_\_\_  
SERIES OF 2013

COUNCIL BILL NO. \_\_\_\_\_  
COMMITTEE OF REFERENCE:  
LAND USE TRANSPORTATION AND INFRASTRUCTURE

**A BILL**

**For an Ordinance to amend Chapter 56 (Utilities) of the Revised Municipal Code Article V relating to floodplain management.**

**WHEREAS**, the Federal National Flood Insurance Program and the State of Colorado have established minimum standards and requirements for floodplain management; and

**WHEREAS**, the City wishes to adhere to or exceed these minimum standards and requirements.

**NOW, THEREFORE, BE IT ENACTED BY THE COUNCIL OF THE CITY AND COUNTY OF DENVER:**

**Section 1.** Section 56-200 (Legislative intent) of the Denver Revised Municipal Code shall be amended by adding the language underlined, and deleting the language stricken, to read as follows:

**Sec. 56-200. – Legislative intent.**

(a) Statutory Authorization. The Legislature of the State of Colorado has, in Title 29, Article 20 of the Colorado Revised Statutes, delegated the responsibility of local governmental units to adopt regulations designed to minimize flood losses. Therefore, the City and County of Denver does hereby adopt the following floodplain management ordinance:

(a) *Findings of fact.* Due to its general terrain and geographical location, the city is particularly subject to damage from stormwaters which, from time to time, overflow from existing watercourses and drainage facilities, and imprudent use of these natural hazard areas called floodplains will pose a continuing and greater danger to life and property in the future unless proper regulations are adopted.

(b) *Statement of purpose.* This article is enacted 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:

- (1) Protect human life and health;
- (2) Minimize expenditure of public money for costly flood control projects;

- (3) Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- (4) Minimize prolonged business interruptions;
- (5) Minimize damage to critical facilities, infrastructure and other public facilities and utilities such as water, sewer and gas mains; electric, telephone and communications facilities; and sewer lines, streets and bridges located in ~~areas of special flood hazard~~ the regulatory floodplain;
- (6) Help maintain a stable tax base by providing for the second sound use and development of ~~areas of special flood hazard~~ the regulatory floodplain so as to minimize future flood blight areas;
- (7) Ensure that potential buyers are notified that property is located in an area of special flood hazard ~~the regulatory floodplain~~;
- (8) Ensure that those who occupy the ~~areas of special flood hazards~~ regulatory floodplain assume responsibility for their actions;
- (9) Encourage and facilitate urban water resources management techniques for reduction of pollution and the enhancement of the urban environment.

(ed) *Methods of reducing flood losses.* In order to accomplish its purposes, this article:

- (1) Requires that all construction of permitted buildings shall be in compliance with the Denver Building Code;
- (2) Restricts or prohibits uses which are dangerous to health, safety, and property due to water or erosion hazards, or which result in damaging increases in erosion ~~or in~~, flood heights or velocities;
- (3) Requires that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
- (4) Controls the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel floodwaters;
- (5) Controls filling, grading, dredging, and other development which may increase flood damage; and,
- (6) Prevents or regulates the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards in other areas.

**Section 2.** Section 56-201 (Definitions) of the Denver Revised Municipal Code shall be amended by adding the language underlined, and deleting the language stricken, to read as follows:

**Sec. 56-201. Definitions.**

- (a) Words, phrases and terms defined herein shall be given the defined meaning.
- (b) Words, phrases and terms not defined herein, but defined in the building code or the

1 zoning code of the city, shall be construed as defined in such code.

2 (c) Words, phrases and terms neither defined herein nor in the building code or the  
3 zoning code of the city, shall be given usual and customary meanings except where the context  
4 clearly indicates a different meaning.

5 (d) The word "shall" is mandatory and not permissive; the word "may" is permissive and  
6 not mandatory.

7 Accessory structure: Also known as "appurtenant structure." A structure which is on the  
8 same parcel of property as the principal structure and the use of which is incidental to the use of  
9 the principal structure.

10 Addition: Any activity that expands an existing structure either horizontally or vertically. See  
11 "lateral addition" and "vertical addition."

12 Appeal: A request for a review of the interpretation of any provisions of this article.

13 Appurtenant structure: See "accessory structure."

14 Area of shallow flooding: A designated AO, AH, AR/AO, AR/AH or VO zone on the Flood  
15 Insurance Rate Map (FIRM) where the base flood depths range from one (1) to three (3) feet, a  
16 clearly defined channel does not exist, the path of flooding is unpredictable and indeterminate, and  
17 velocity flow may be evident. Such flooding is characterized by ponding or sheet flow.

18 Base flood: Also known as "one-hundred-year flood," "one-percent-annual-chance flood,"  
19 and "one-percent-chance flood." A flood having a one-percent chance of being equaled or  
20 exceeded in any given year. The term does not imply that the flood will necessarily happen once  
21 every one hundred years.

22 Base flood elevation (BFE): The elevation shown on a FEMA Flood Insurance Rate Map  
23 (FIRM) for Zones AE, AH, A1-A30, AR, AR/AE, AR/A1-A30, AR/AH, AR/AO, V1-V30, and VE that  
24 indicates the water surface elevation resulting from the occurrence of the base flood.

25 Basement: Any area of a building having its floor sub-grade (below ground level) on all  
26 sides.

27 Building: See "structure."

28 Channel: The physical confine of stream or waterway consisting of a bed and stream banks,  
29 existing in a variety of geometries.

30 Channelization: The artificial creation, enlargement or realignment of a stream channel.

31 Code of Federal Regulation (CFR): The codification of the general and permanent Rules  
32 published in the Federal Register by the executive departments and agencies of the Federal  
33 Government. It is divided into 50 titles that represent broad areas subject to Federal regulation.

34 Community: Any political subdivision that has the authority to adopt and enforce floodplain  
35 management regulations through zoning, including but not limited to: counties, cities, towns,  
36 unincorporated areas, Indian tribes, and drainage and flood control districts.

1 Conditional Letter of Map Revision (CLOMR): FEMA's comment on a proposed project,  
2 which does not revise an effective floodplain map, that would, upon construction, affect the  
3 hydrologic or hydraulic characteristics of a flooding source and thus result in the modification of the  
4 existing regulatory floodplain.

5 Crawl space: A shallow space beneath the ground floor of a structure with clearances less  
6 than human height, generally used for storage or to access plumbing, wiring, etc... A crawlspace  
7 cannot be used as living space. A crawlspace may be considered a basement for flood insurance  
8 purposes.

9 Critical facility: A structure or related infrastructure, but not the land on which it is situated,  
10 that if flooded may result in significant hazards to public health and safety or interrupt essential  
11 services and operations for the community at any time before, during and after a flood. The  
12 classification and definition of critical facilities shall be as specified in Rule 6 of the Department of  
13 Natural Resources, Colorado Water Conservation Board's "Rules and Regulations for Regulatory  
14 Floodplains in Colorado," dated November 17, 2010, or as amended.

15 Development: Any manmade change to improved or unimproved real estate, including but  
16 not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation, or  
17 drilling operations, or storage of equipment or materials.

18 DFIRM database: Database (usually spreadsheets) containing data and analyses that  
19 accompany the DFIRM. The FEMA Mapping Specifications and Guidelines outline requirements  
20 for the development and maintenance of DFIRM databases.

21 Digital Flood Insurance Rate Map (DFIRM): FEMA digital floodplain map. These maps serve  
22 as regulatory floodplain maps for insurance and floodplain management purposes.

23 Dry floodproofing: Method of floodproofing in which the intent is to keep the interior of the  
24 structure or property, including all machinery and equipment, watertight using walls that are  
25 substantially impermeable to the passage of water with structural components having the capability  
26 of resisting hydrostatic and hydrodynamic loads and effects of buoyancy. This includes using flood  
27 damage-resistant materials and backwater prevention for storm and sanitary sewers.

28 Elevated Building: A non-basement building which has the top of the lowest elevated floor  
29 raised above ground level by foundation walls, shear walls, posts, piers, piles, or columns. In  
30 Zones A1-A30, AE, A, A99, AO, AH, B, C, X, and D, it also includes a building elevated by means  
31 of fill or solid foundation perimeter walls with openings sufficient to facilitate the unimpeded  
32 movement of flood waters.

33 Existing manufactured home park or subdivision: A manufactured home park or subdivision  
34 for which the construction of facilities for servicing the lots on which the manufactured homes are  
35 to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and  
36 either final site grading or the pouring of concrete pads) is completed before the effective date of  
37 the floodplain management regulations adopted by a community.

38 Expansion to an existing manufactured home park or subdivision: The preparation of  
39 additional sites by the construction of facilities for servicing the lots on which the manufactured

1 homes are to be affixed (including the installation of utilities, the construction of streets, and either  
2 final site grading or the pouring of concrete pads).

3 *Encroachment lines:* Limits of obstruction to flood flows. These lines are generally parallel to  
4 the stream. The lines are established by assuming that the area landward (outside) of the  
5 encroachment lines may be ultimately developed in such a way that it will not be available to  
6 convey flood flows. The stream channel and adjoining floodplains between these lines will be  
7 maintained as open space and will be adequate to convey the one-hundred-year flood without  
8 adversely increasing flood heights, such increase under any condition not exceeding one (1) foot.

9 *Equal degree of encroachment:* Established by considering the effect of encroachments on  
10 the hydraulic efficiency of the floodplain along a significant reach of the stream, on both sides.

11 *Federal Register:* The official daily publication for Rules, proposed Rules, and notices of  
12 Federal agencies and organizations, as well as executive orders and other presidential documents.

13 *FEMA:* Federal Emergency Management Agency, the agency responsible for administering  
14 the National Flood Insurance Program (NFIP).

15 *Flood or Flooding:* A general and temporary condition of partial or complete inundation of  
16 normally dry land areas from:

- 17 1. The overflow of water from channels and reservoir spillways;
- 18 2. The unusual and rapid accumulation or runoff of surface waters from any source; or
- 19 3. Mudslides or mudflows that occur from excess surface water that is combined with  
20 mud or other debris that is sufficiently fluid so as to flow over the surface of normally  
21 dry land areas (such as earth carried by a current of water and deposited along the  
22 path of the current).

23 *Flood damage-resistant materials:* Any building product [material, component or system]  
24 capable of withstanding direct and prolonged contact with floodwaters without sustaining significant  
25 damage. Flood damage-resistant materials must comply with FEMA Technical Bulletin 2 “Flood  
26 Damage-Resistant Materials Requirements,” dated August 2008, or as amended.

27 *Flood fringe:* The portion of land in Zone AE of the regulatory floodplain which is located  
28 outside of the designated floodway for a specific waterway.

29 *Flood Hazard Zones:* Areas designated by FEMA on the FIRM and/or LOMRs that  
30 correspond to differing types and levels of flood risk. These zones include, but are not limited to: A,  
31 A1-A30, AE, AH, AO, AR, AR/A1-A30, AR/AE, AR/AH, AR/AO, A99, B, C, D, E, M, V, V1-V30, VE,  
32 VO, X (shaded) and X (unshaded). The definitions of each zone are as indicated on the associated  
33 FIRM.

34 *Flood insurance/Insurance rate/Rate map/Map (FIRM):* The official map on which the Federal  
35 Emergency Management Agency/FEMA has delineated both the areas of special flood  
36 hazards/Special Flood Hazard Areas (SFHA) and the risk premium zones applicable to the  
37 community.

38 *Flood insurance/Insurance study/Study (FIS):* The official report provided by FEMA which

1 contains the Flood Insurance Rate Map (FIRM), floodway data tables, and flood profiles for studied  
2 flooding sources. This information can be used to determine base flood elevations (BFEs) for some  
3 areas~~The official report in which the Federal Emergency Management Agency has provided flood~~  
4 ~~profiles, as well as the flood boundary floodway map and the water surface elevation of the one-~~  
5 ~~hundred-year flood.~~

6 *Floodplain:* Any land area susceptible to being inundated as the result of a flood~~An area in~~  
7 ~~and adjacent to a waterway or storm runoff channel, which is subject to a one-hundred-year flood,~~  
8 ~~and which area is so adverse to past, current or future construction or prudent land use as to~~  
9 ~~constitute a significant hazard to public health, safety or welfare.~~

10 *Floodplain Administrator:* The community official designated to administer and enforce the  
11 floodplain management regulations and other appropriate sections of Title 44 of the Code of  
12 Federal Regulations pertaining to floodplain management.

13 *Flood profile:* A graph or longitudinal profile showing the relationship of the water surface  
14 elevation of a flood event to a location along a stream or river~~waterway.~~

15 *Floodproofing:* Any combination of structural and/or non-structural provisions, additions,  
16 changes, or adjustments to properties and structures subject to flooding primarily for the reduction  
17 or elimination of flood damages to properties, water and sanitary facilities, structures, machinery  
18 and equipment, and contents of buildings in a flood hazard area. The two types of floodproofing  
19 are “wet floodproofing” and “dry floodproofing.”

20 *Flood protection elevation (FPE):* The elevation of freeboard plus the base flood elevation  
21 (BFE), or in an AO Zone freeboard plus depth of flooding (2' depth if no number specified) above  
22 the highest adjacent grade (HAG)~~An elevation one and one-half (1.5) feet above the elevation or~~  
23 ~~flood profile of the hundred-year flood under existing channel and floodplain conditions.~~

24 *Flood storage area:* The flood fringe and areas of shallow flooding portion of the regulatory  
25 floodplain in which flows are characteristically of shallow depths and low velocities.

26 *Floodway:* The channel of a river, creek or other watercourse and the adjacent land areas  
27 that must be reserved in order to discharge the hundred-year base flood without cumulatively  
28 increasing the water surface elevation more than one (1) foot~~a designated height assuming an~~  
29 ~~equal degree of encroachment for a significant reach of channel. The designated height for all~~  
30 newly studied reaches shall be one-half (0.5) foot. A Letter of Map Revision (LOMR) to an existing  
31 floodway designation may continue to use the floodway criteria at the time of the existing floodway  
32 designation, at the discretion of the Floodplain Administrator. Existing one (1) foot floodway  
33 designations may be used until revised on the regulatory floodplain map.

34 *Freeboard:* The vertical distance in feet above a predicted water surface elevation intended  
35 to provide a margin of safety to compensate for unknown factors that could contribute to flood  
36 heights greater than the height calculated for a selected size flood such as debris blockage and  
37 increased runoff due to urbanization of the watershed. For purposes of this ordinance, freeboard  
38 is measured above the BFE, or above the depth of flooding in AO Zones, defined for the regulatory  
39 floodplain.

1 Highest adjacent grade (HAG): The highest natural elevation of the ground surface prior to  
2 construction next to the proposed walls of a structure.

3 Historic structure: Any structure that is:

- 4 1. Listed individually in the National Register of Historic Places (a listing maintained by  
5 the Department of Interior) or preliminarily determined by the Secretary of the Interior  
6 as meeting the requirements for individual listing on the National Register;
- 7 2. Certified or preliminarily determined by the Secretary of the Interior as contributing to  
8 the historical significance of a registered historic district or a district preliminarily  
9 determined by the Secretary to qualify as a registered historic district;
- 10 3. Individually listed on a state inventory of historic places in states with historic  
11 preservation programs which have been approved by the Secretary of Interior; or
- 12 4. Individually listed on a local inventory of historic places in communities with historic  
13 preservation programs that have been certified either:
  - 14 a. By an approved state program as determined by the Secretary of the Interior;  
15 or
  - 16 b. Directly by the Secretary of the Interior in states without approved programs.

17 Lateral addition: An addition which is horizontal in nature and increases the footprint of the  
18 existing structure.

19 Letter of Map Revision (LOMR): FEMA's official revision of an effective Flood Insurance  
20 Rate Map (FIRM). LOMRs are generally based on the implementation of physical measures that  
21 affect the hydrologic or hydraulic characteristics of a flooding source and thus result in the  
22 modification of the existing regulatory floodway, the effective base flood elevations (BFEs), or the  
23 Special Flood Hazard Area (SFHA).

24 Letter of Map Revision Based on Fill (LOMR-F): FEMA's modification of the Special Flood  
25 Hazard Area (SFHA) shown on the Flood Insurance Rate Map (FIRM) based on the placement of  
26 fill outside the existing regulatory floodway.

27 Levee: A man-made structure, usually earthen embankment, designed and constructed in  
28 accordance with sound engineering practices to contain, control, or divert the flow of water so as to  
29 provide protection from temporary flooding. For a levee structure to be reflected on the FEMA  
30 Flood Insurance Rate Map (FIRM) as providing flood protection, the levee structure must meet the  
31 requirements set forth in Section 65.10 of the National Flood Insurance Program (NFIP)  
32 regulations.

33 Levee system: A flood protection system which consists of a levee, or levees, and  
34 associated structures, such as closure and drainage devices, which are constructed and operated  
35 in accordance with sound engineering practices.

36 Lowest adjacent grade (LAG): The lowest elevation of the ground surface touching a  
37 structure.

1 Lowest floor: The lowest floor of the lowest enclosed area (including basement). An  
2 unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access or  
3 limited storage in an area other than a basement area is not considered a building's lowest floor;  
4 provided that such enclosure is not built so as to render the structure in violation of the applicable  
5 non-elevation design requirement of Section 60.3 of the National Flood Insurance Program (NFIP)  
6 regulations.

7 Machinery and equipment: Utilities and mechanical items that service the building. These  
8 items include, but are not limited to: elevators and their associated equipment, transformers,  
9 electrical panels, electric meters, junction boxes, receptacles, switches, gas meters, furnaces, hot  
10 water heaters, heat pumps, air conditioners, generators, ductwork, communications equipment,  
11 and other service facilities.

12 Manager of public works: Hereinafter called the manager, he shall be the officer in full  
13 charge and control of the department of public works (refer to section 56-204(a)).

14 Manufactured home: A structure, transportable in one or more sections, which is built on a  
15 permanent chassis and is designed for use with or without a permanent foundation when  
16 connected to the required utilities. The term "manufactured home" includes "mobile home" but  
17 does not include "recreational vehicle" or "modular home".

18 Manufactured home park or subdivision: A parcel (or contiguous parcels) of land divided into  
19 two or more manufactured home lots for rent or sale.

20 Mean Sea Level: For purposes of the National Flood Insurance Program (NFIP), the North  
21 American Vertical Datum (NAVD) of 1988 or other datum, to which Base Flood Elevations shown  
22 on a community's Flood Insurance Rate Map (FIRM) are referenced.

23 Mobile home: A type of manufactured home built prior to 1976 and constructed to the  
24 American National Standards Institute (ANSI) A-119.1 Standard.

25 Modular home: A Colorado labeled factory-built residential structure that meets or exceeds  
26 the currently adopted building codes in Colorado. Modular housing is custom designed and can be  
27 fabricated for both single-family and multi-family use.

28 National Flood Insurance Program (NFIP): FEMA's program of flood insurance coverage  
29 and floodplain management administered in conjunction with the Robert T. Stafford Relief and  
30 Emergency Assistance Act. The NFIP has applicable Federal regulations promulgated in Title 44 of  
31 the Code of Federal Regulations. The U.S. Congress established the NFIP in 1968 with the  
32 passage of the National Flood Insurance Act of 1968.

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



1 structures. In Denver, the effective date of the initial FIRM is April 15, 1986 and the effective date  
2 of the first adopted floodplain management regulation is March 17, 1986.

3 *New manufactured home park or subdivision:* A manufactured home park or subdivision for  
4 which the construction of facilities for servicing the lots on which the manufactured homes are to  
5 be affixed (including at a minimum, the installation of utilities, the construction of streets, and either  
6 final site grading or the pouring of concrete pads) is completed on or after the effective date of  
7 floodplain management regulations adopted by a community. In Denver, the effective date of the  
8 first adopted floodplain management regulation is March 17, 1986.

9 *No-Rise Certification:* A record of the results of an engineering analysis conducted to  
10 determine whether a project will increase flood heights in a floodway. A No-Rise Certification must  
11 be supported by technical data and signed by a licensed Colorado Professional Engineer. The  
12 supporting technical data should be based on the standard step-backwater computer model used  
13 to develop the floodway shown on the Flood Insurance Rate Map (FIRM).

14 *Obstruction:* Any material or item that may impact the flow or storage of floodwaters. This  
15 includes, but is not limited to: fill, structures, bridges, roadways, equipment, walls, and fences.

16 *Occupancy:* The use or possession of a building by humans for purposes including, but not  
17 limited to, residential, office, hospital, or commercial.

18 ~~*One-hundred-year flood:* A flood that has the frequency of occurrence of once every one~~  
19 ~~hundred (100) years determined from an analysis of floods on a particular watercourse and other~~  
20 ~~watercourse and other watercourses in the same general region. It was approximately a one (1)~~  
21 ~~percent chance of occurring in any given year. See "base flood."~~

22 *One-percent-annual-chance flood or one-percent-chance flood:* See "base flood."

23 *Phased improvement:* Any improvement to a structure that occurs within one (1) year of  
24 permit closeout of any previous construction on that structure. Phased improvements may be  
25 intentional or unintentional. Examples of phased improvement include, but are not limited to:  
26 incomplete work, multiple permits, consecutive permits, modification of existing permits, and  
27 unauthorized work. Changes in ownership do not preclude previous improvements. This applies to  
28 the entire structure as a whole, including multi-tenant and multi-unit structures.

29 *Recreational vehicle (RV):* Means a vehicle which is:

- 30 1. Built on a single chassis;
- 31 2. 400 square feet or less when measured at the largest horizontal projection;
- 32 3. Designed to be self-propelled or permanently towable by a light duty truck; and
- 33 4. Designed primarily not for use as a permanent dwelling but as temporary living  
34 quarters for recreational, camping, travel, or seasonal use.

35 ~~*Regulatory floodplain:* That portion of the floodplain subject to inundation by the one-~~  
36 ~~hundred-year flood~~The area of land subject to inundation by the base flood as delineated by the  
37 Special Flood Hazard Area (SFHA), any other floodplain maps that have been adopted by the  
38 manager of public works, and areas that have been removed from the SFHA by a FEMA issued

1 Letter of Map Revision Based on Fill (LOMR-F).

2 Regulatory floodway: See "floodway."

3 ~~Shallow flooding area: A designated AO zone on the flood insurance rate map (FIRM). The~~  
4 ~~one-hundred-year flood depths range from one (1) to three (3) feet; a clearly defined channel does~~  
5 ~~not exist; the path of flooding is unpredictable and indeterminate; and velocity flow may be evident.~~

6 Special Flood Hazard Area (SFHA): The land within a community subject to inundation by  
7 the base flood as shown on the Flood Insurance Rate Map (FIRM).

8 Start of construction: The date the building permit was issued, including substantial  
9 improvement, provided the actual start of construction, repair, reconstruction, rehabilitation,  
10 addition, placement, or other improvement was within 180 days of the permit date. The actual start  
11 means either the first placement of permanent construction of a structure on a site, such as the  
12 pouring of slab or footings, the installation of piles, the construction of columns, or any work  
13 beyond the stage of excavation; or the placement of a manufactured home on a foundation.  
14 Permanent construction does not include land preparation, such as clearing, grading and filling;  
15 nor does it include the installation of streets and/or walkways; nor does it include excavation for  
16 basement, footings, piers or foundations or the erection of temporary forms; nor does it include the  
17 installation on the property of accessory buildings, such as garages or sheds not occupied as  
18 dwelling units or not part of the main structure. For a substantial improvement, the actual start of  
19 construction means the first alteration of any wall, ceiling, floor, or other structural part of a  
20 building, whether or not that alteration affects the external dimensions of the building.

21 ~~Structure: Anything constructed or erected, the use of which requires a more or less~~  
22 ~~permanent location on or in the ground. It includes but is not limited to objects such as buildings,~~  
23 ~~factories, sheds, and cabins~~A walled and roofed building, including a gas or liquid storage tank,  
24 which is principally above ground, as well as a manufactured home.

25 Substantial damage: Damage of any origin sustained by a structure whereby the cost of  
26 restoring the structure to its before-damaged condition would equal or exceed 50 percent of the  
27 market value of the structure just prior to when the damage occurred.

28 ~~Substantial improvement: Any repair, reconstruction, or improvement of a structure, the cost~~  
29 ~~of which equals or exceeds fifty (50) percent of the market value of the structure either, (a) before~~  
30 ~~the improvement or repair is started, or (b) if the structure has been damaged, and is being~~  
31 ~~restored, before the damage occurred. For the purposes of this definition "substantial~~  
32 ~~improvement" is considered to occur when the first alteration of any wall, ceiling, floor, or other~~  
33 ~~structural part of the building commences, whether or not that alteration affects the external~~  
34 ~~dimensions of the structure. The term does not, however, include either (1) any project for~~  
35 ~~improvement of a structure to comply with existing state or local health, sanitary, or safety code~~  
36 ~~specifications which are solely necessary to assure safe living conditions or (2) any alteration of a~~  
37 ~~structure listed on the National Register of Historic Places or a state inventory of historic~~  
38 ~~places.~~Any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of  
39 which equals or exceeds 50 percent of the market value of the structure before "start of  
40 construction" of the improvement. The value of the structure shall be determined by the local

1 jurisdiction having land use authority in the area of interest. This includes structures which have  
2 incurred "substantial damage", regardless of the actual repair work performed. "Phased  
3 improvements" are calculated cumulatively towards the cost of improvement. The term "substantial  
4 improvement" does not, however, include either:

- 5 1. Any project for improvement of a structure to correct existing violations of state or  
6 local health, sanitary, or safety code specifications which have been identified by the  
7 local code enforcement official and which are the minimum necessary conditions, or
- 8 2. Any alteration of a "historic structure" provided that the alteration will not preclude the  
9 structure's continued designation as a "historic structure."

10 *Use:* The purpose for which land or structures thereon is designed, arranged or intended to  
11 be occupied or used, or for which it is occupied, maintained, rented or leased.

12 *Variance:* A grant of relief from the requirements of this article, when specific enforcement  
13 would result in unnecessary hardship (hardship that is solely financial is not grounds for a  
14 variance). A variance, therefore, which permits construction or development in a manner in an area  
15 that would otherwise be prohibited by this article.

16 *Vertical addition:* An addition which is vertical in nature, but does not increase the horizontal  
17 footprint of the existing structure.

18 *Violation:* The failure of a structure or other development to be fully compliant with the  
19 community's floodplain management regulations. A structure or other development without the  
20 elevation certificate, other certifications, or other evidence of compliance required in National Flood  
21 Insurance Program (NFIP) regulations Section 60.3(b)(5), (c)(4), (c)(10), (d)(3), (e)(2), (e)(4), or  
22 (e)(5) is presumed to be in violation until such time as that documentation is provided.

23 *Water Surface Elevation (WSEL):* The height, in relation to the North American Vertical  
24 Datum (NAVD) of 1988 (or other datum, where specified), of floods of various magnitudes and  
25 frequencies.

26 *Wet floodproofing:* A method of floodproofing to reduce flood damage that typically involves  
27 three elements: allowing floodwaters to enter and exit to minimize structural damage, using flood  
28 damage-resistant materials, and elevating machinery and equipment. Wet floodproofing cannot be  
29 used in lieu of elevation or dry floodproofing requirements.

30 *Zones:* See "Flood Hazard Zones."

31 **Section 3.** Section 56-202 (General Provisions) of the Denver Revised Municipal Code shall  
32 be amended by adding the language underlined, and deleting the language stricken, to read as  
33 follows:

34 **Sec. 56-202. General Provisions.**

35 (a) *Disclaimer of liability.* The degree of flood protection required by this article is  
36 considered reasonable for regulatory purposes and is based on scientific and engineering  
37 considerations. Larger floods can and will occur on rare occasions. Flood heights may be  
38 increased by manmade or natural causes. This article does not imply that land outside the ~~areas of~~

1 ~~special flood hazards~~regulatory floodplain or uses permitted within such areas will be free from  
2 flooding or flood damages. This article shall not create liability on the part of the city, any officer or  
3 employee thereof, the Colorado Water Conservation Board, or the Federal Emergency  
4 Management Agency (FEMA), for any flood damages that result from reliance on this article or any  
5 administrative decision lawfully made thereunder.

6 (b) *Jurisdiction of this article.* The provisions of this article and implementing regulations  
7 adopted by the manager apply to all lands, uses, activities, and structures in all areas of the city  
8 located within a regulatory floodplain as defined in section 56-201, "Definitions," of this article.

9 (c) *Interpretation.* In the interpretation and application of this article, all provisions shall  
10 be:

- 11 (1) Considered as minimum requirements;
- 12 (2) Liberally construed in favor of the governing body; and,
- 13 (3) Deemed neither to limit nor repeal any other powers granted under ~~state~~State  
14 statutes.

15 (d) Regulatory Floodplains.

16 (1) ~~Regulatory floodplains~~Special Flood Hazard Areas (SFHAs). ~~Regulatory~~  
17 ~~floodplains shall be those~~These areas of special flood hazard which, among  
18 others, are identified by FEMA in a scientific and engineering reports which  
19 ~~are done periodically, which in the past have been~~ entitled "Flood Insurance  
20 Study for the City and County of Denver," dated November 20, 2013 and which  
21 ~~are with accompanied~~accompanying by ~~Flood Insurance Rate Maps~~  
22 (FIRM). Any revisions hereto are hereby adopted by reference and declared to  
23 be part of this article and flood boundary floodway maps. ~~The regulatory~~  
24 ~~floodplain shall be subdivided into the floodway and the floodway storage area~~  
25 ~~as defined in section 56-201, definitions, of this article.~~

26 ~~(2a.)~~ Zone A. When ~~one-hundred-year~~base flood elevation data has not been  
27 provided in accordance with the foregoing paragraph, and an area of  
28 ~~special flood hazard~~ has been designated zZone A on the FIRM, the  
29 ~~deputy manager of public works for wastewater management~~Floodplain  
30 Administrator shall obtain, review and reasonably utilize any ~~one-~~  
31 ~~hundred-year~~base flood elevation data available from federal, state or  
32 other source in order to administer the applicable conditions of section  
33 56-203, "Regulatory Floodplain use and limitations," of this article.

34 (2) Any other areas that are subject to inundation by the base flood, which are  
35 delineated in floodplain maps that have been adopted for regulatory use by  
36 the manager in accordance with section 56-202(e).

37 (3) Areas removed from the SFHA by fill. These areas are identified by FEMA by  
38 issuance of a Letter of Map Revision Based on Fill (LOMR-F). For purposes of

1 this article this includes all existing and proposed LOMR-F areas, if the LOMR-  
2 F area has not previously been superseded by a standard LOMR.

3 (e) *Adoption of regulatory floodplain map.*

- 4 (1) The maps which define the regulatory floodplains established by this article  
5 shall be adopted by the manager of ~~public works~~. Such adoption shall be  
6 accomplished by:
- 7 a. Filing one (1) copy thereof with the city clerk;
  - 8 b. Filing one (1) copy thereof with the city attorney;
  - 9 c. Concurrently with the filings required under a. and b., above, the  
10 manager of ~~public works~~ shall publish a notice stating that the filings  
11 have been made and list the dates of such filings. Such notice shall be  
12 published once in the official newspaper.
- 13 (2) The adopted maps collectively shall constitute the official regulatory floodplain  
14 map.
- 15 (3) The various individual floodplain maps constituting the official regulatory  
16 floodplain map shall be marked and maintained pursuant to a system of  
17 identification established by the ~~wastewater management division of the~~  
18 department of public works.
- 19 (4) The manager and ~~his designee~~ the Floodplain Administrator shall make all  
20 maps available to public inspection at all reasonable times.

21 (f) *Amendments to official regulatory floodplain map.*

- 22 (1) Upon the recommendation of the ~~deputy manager of public works for~~  
23 ~~wastewater management~~ Floodplain Administrator, amendments of whatsoever  
24 nature to the official regulatory floodplain map, except as in section 56-  
25 202(f)(2) below, shall be referred to the manager of ~~public works~~ for adoption.  
26 Amendments shall be adopted as in paragraph (e) above.
- 27 (2) Those individual maps constituting a part of the official regulatory floodplain  
28 map which were originated by FEMA, shall only be amended ~~by the manager~~  
29 ~~of public works~~ following FEMA review and approval of data ~~submitted by the~~  
30 ~~city~~, and subsequent amendment by FEMA thereof.
- 31 (3) All amendments to the official regulatory floodplain map shall be listed in the  
32 order in which they were adopted, in a separate register maintained in and  
33 kept current by the ~~wastewater management division of the~~ department of  
34 public works.

35 (g) *Effect of other ordinances and regulations.* Wherever higher or more restrictive  
36 standards are established by the provisions of any other applicable statute, ordinance or regulation  
37 than are established by the provisions of this article, the provisions of such other statute, ordinance

1 or regulation shall govern.

2 (h) *Effect of private covenants.* Nothing herein contained shall be construed to render  
3 inoperative any restrictions established by covenants running with the land unless such are  
4 prohibited by or are contrary to the provisions of this article.

5 (i) *Floodplain disclaimer.* As a part of the sale of any property within the city, a  
6 disclaimer shall be provided to the potential buyer by the seller indicating the relationship of the  
7 property to any regulatory floodplain.

8 (j) *Grandfathering.* The floodplain requirements in effect at the time of submittal of  
9 development plans for City review, or at the time of application for building permit, or Sewer Use  
10 and Drainage Permit, shall be applied to such development or building project.

11 **Section 4.** Section 56-203 (Floodplain use and limitations) of the Denver Revised Municipal  
12 Code shall be amended by adding the language underlined, and deleting the language stricken, to  
13 read as follows:

14 **Sec. 56-203. Regulatory Floodplain use and limitations.**

15 (a) *General.* The following provisions shall apply to all uses within all areas of regulatory  
16 floodplains as defined and adopted under section 56-202(d) and (e) of this article.

17 (b) *Existing uses.* An existing use in a regulatory floodplain may be changed to any use  
18 which is allowed by the ordinances of the city; provided, however, that such change of an  
19 existing use shall be limited by and shall be in accordance with the regulations herein  
20 established.

21 (c) *Regulatory floodplain.* In all areas of ~~special flood hazards where one-hundred-year~~  
22 ~~flood elevation data has been provided~~ the regulatory floodplain, the following provisions are  
23 required:

- 24 (1) No development, use, fill, excavation, construction or alteration within a  
25 regulatory floodplain shall be permitted, which acting alone or in combination  
26 with existing or future uses, would cause or result in any of the following:
- 27 a. The storage or processing of materials that are buoyant, flammable,  
28 explosive or otherwise potentially injurious to human, animal or plant life  
29 in time of flooding;
  - 30 b. The disposal of garbage, sludge, waste materials or other potentially  
31 injurious substances ~~in the floodplain~~;
  - 32 c. An obstruction or depositing of any material which would impair the flow  
33 capacity of a regulatory floodplain or increase floodwater depths or  
34 velocities so as to cause probable damage to others wherever located;
  - 35 d. A substantial increase in sedimentation and/or erosion.
- 36 (2) All new construction, lateral additions, and substantial improvements ~~and/or~~  
37 ~~remodeling of existing construction~~ shall be approved by the ~~wastewater~~

1 ~~management division manager~~ for location and shall ~~comply with the~~  
2 ~~requirements of Section 1723 of the Denver Building Code be:~~

- 3 a. Designed (or modified) and adequately anchored to prevent flotation,  
4 collapse, or lateral movement of the structure resulting from  
5 hydrodynamic and hydrostatic loads, including the effects of buoyancy;  
6 and
- 7 b. Designed and constructed with flood damage-resistant materials below  
8 the FPE; and
- 9 c. Designed and constructed by methods and practices that minimize  
10 flood damages; and
- 11 d. Designed and constructed with gas, electrical, heating, ventilation,  
12 plumbing, air conditioning, and communications equipment and other  
13 service facilities that are designed and/or located so as to prevent water  
14 from entering or accumulating within the components, or otherwise  
15 damaged, during conditions of flooding.

16 (3) On-site waste disposal systems shall be located to avoid impairment to them  
17 or contamination from them during flooding.

18 (4) ~~No mobile~~ new manufactured home, new manufactured home park, or  
19 expansion to an existing manufactured home park shall be located in the  
20 regulatory floodplain.

21 (5) All new and replacement water supply systems shall be designed to minimize  
22 or eliminate infiltration of floodwaters into the system.

23 (6) All new and replacement sanitary sewage systems shall be designed to  
24 minimize or eliminate infiltration of floodwaters into the system and discharge  
25 from the system into flood waters.

26 (7) For all proposed uses or developments that alter a watercourse within a  
27 regulatory floodplain, the following standards apply:

28 a. Channelization and flow diversion projects shall appropriately consider  
29 issues of sediment transport, erosion, deposition, and channel  
30 migration and properly mitigate potential problems through the project  
31 as well as upstream and downstream of any improvement activity. A  
32 detailed analysis of sediment transport and overall channel stability  
33 should be considered, when appropriate, to assist in determining the  
34 most appropriate design.

35 b. Channelization and flow diversion projects shall evaluate the residual  
36 floodplains.

37 c. Any channelization or other stream alteration activity proposed by a  
38 project proponent must be evaluated for its impact on the regulatory

1 floodplain and be in compliance with all applicable Federal, State and  
2 local floodplain rules, regulations and ordinances.

3 d. Any stream alteration activity shall be designed and sealed by a  
4 licensed Colorado Professional Engineer or Certified Professional  
5 Hydrologist.

6 e. All activities within the regulatory floodplain shall meet all applicable  
7 Federal, and State requirements and regulations, as well as the  
8 provisions of this article and implementing regulations adopted by the  
9 manager.

10 f. Within the floodway, stream alteration activities shall not be constructed  
11 unless the project proponent demonstrates through a floodway analysis  
12 and report, sealed by a licensed Colorado Professional Engineer, that  
13 there is not more than a 0.00-foot rise in the proposed conditions  
14 compared to existing conditions floodway resulting from the project,  
15 otherwise known as a No-Rise Certification, unless a CLOMR for the  
16 floodway revision has been approved by FEMA.

17 g. Maintenance shall be required for any altered or relocated portions of  
18 watercourses so that the flood-carrying capacity is not diminished.

19 (8) For waterways with base flood elevations for which a regulatory floodway has  
20 not been designated, no proposed use or development shall be permitted  
21 within Zone AE, unless it is demonstrated that the cumulative effect of the  
22 proposed development, when combined with all other existing and anticipated  
23 development, will not increase the water surface elevation of the base flood  
24 more than one-half (0.5) foot at any point within the community; unless a  
25 FEMA approved CLOMR has been issued for that use or development.

26 (59) Permitted uses: The following uses shall be permitted within the regulatory  
27 floodplain to the extent that they will comply with all requirements of ~~the zoning~~  
28 ~~ordinancethis article and the Denver Zoning Code:~~

29 a. Agricultural uses such as general farming, pasture, grazing, outdoor  
30 plant nurseries, horticulture, truck farming, forestry, sod farming and  
31 wild crop harvesting;

32 b. Uses such as loading areas, parking areas, airport landing strips and  
33 storage yards for equipment or machinery easily removed from the site  
34 or not subject to flood damage;

35 c. Private and public recreational uses such as parks, golf courses, driving  
36 ranges, archery ranges, picnic grounds, boat launching ramps, and  
37 hiking, biking and horseback riding trails;

38 d. Utility facilities that are not considered to be critical facilities including,



1 but not limited to, wastewater facilities, water, gas and electric  
2 distribution facilities, roadways and bridges;

3 e. Fill, excavation or deposit of materials:

- 4 1. Any such fill, excavation or deposit of materials shall be  
5 permitted only upon a finding that the fill, excavation or deposit of  
6 materials will have some beneficial purpose and the amount  
7 thereof will not be greater than is necessary to achieve that  
8 purpose, as demonstrated by a plan submitted by the owner  
9 showing the final dimensions of the proposed fill, excavation or  
10 material and the use to which the altered land will be put;
- 11 2. The fill or material does not encroach on the floodway;
- 12 3. Any fill or deposit that reduces the hydraulic capacity shall  
13 require appropriate hydraulic studies and a review of the urban  
14 impact on such reduction;
- 15 4. The fill or material will be protected against erosion by rip-rap,  
16 strong vegetative cover or bulkheading.

17 (d) *The floodway.* The floodway is an extremely hazardous area due to the velocity of  
18 floodwaters which carry debris, potential projectiles, and erosion potential. In addition to section  
19 56-203(c), the following provisions shall also apply to all uses within the floodway:

- 20 (1) No encroachments, including fill, obstructions, new construction, lateral  
21 additions, substantial improvements, or other development shall be permitted  
22 within the floodway unless it has been demonstrated through hydrologic and  
23 hydraulic analyses performed by a licensed Colorado Professional Engineer  
24 and in accordance with standard engineering practice that the proposed  
25 encroachment would not result in any increase (requiring a No-Rise  
26 Certification) in flood levels during the occurrence of the one-hundred-  
27 yearbase flood.
- 28 (2) No building designed for human occupancy shall be placed in the floodway.
- 29 (3) Encroachments may be permitted in the floodway that result in an increase in  
30 base flood elevations, provided that a CLOMR for the floodway revision is  
31 approved by FEMA.

32 (e) *Flood storage area.* In addition to the provisions of section 56-203(c), the following  
33 requirements shall also apply to all uses in the flood storage area:

- 34 (1) Residential construction. ~~New construction, lateral addition, and substantial~~  
35 ~~improvement and/or remodeling~~ of any residential structure shall meet the  
36 following requirements:
  - 37 a. ~~Have the lowest floor, (including basement) and all associated~~  
38 machinery and equipment, elevated with a minimum of one and one-

1 half (1.5) feet of freeboard~~above the one-hundred-year flood elevation.~~

2 ~~New construction, substantial improvement and/or remodeling of any~~  
3 ~~residential structure within an area designated as an AO zone on the~~  
4 ~~FIRM shall have the lowest floor, including basement, elevated above~~  
5 ~~the highest adjacent grade at least as high as the depth number~~  
6 ~~specified in feet on the community's FIRM (at least two (2) feet if no~~  
7 ~~depth number is specified).~~

8 b. Within Zones AH and AO, have adequate drainage paths around  
9 structures on slopes, to guide floodwaters around and away from  
10 proposed structures.

11 c. Upon completion of construction, and prior to Certificate of Occupancy,  
12 a "finished construction" version of the FEMA Elevation Certificate must  
13 be submitted to, and approved by, the Floodplain Administrator.

14 (2) *Nonresidential construction.* ~~New construction, lateral addition, and~~  
15 ~~substantial improvement and/or remodeling of any commercial, industrial or~~  
16 ~~other nonresidential structure, with the exception of critical facilities, shall meet~~  
17 ~~the following requirements:~~

18 a. ~~shall~~ ~~e~~Either have the lowest floor, (including basement) and all  
19 associated machinery and equipment;

20 1. ~~e~~Elevated with a minimum of one and one-half (1.5) feet above  
21 the level of the one-hundred-year flood elevation of freeboard; or,

22 2. ~~t~~Together with attendant utility and sanitary facilities, shall  
23 comply with Section 1723 of the Denver Building Code be dry  
24 floodproofed with a minimum of one and one-half (1.5) feet of  
25 freeboard.

26 ~~New construction, substantial improvement and/or remodeling of any~~  
27 ~~commercial, industrial or other nonresidential structure within an area~~  
28 ~~designated as an AO zone on the FIRM shall either have the lowest floor,~~  
29 ~~including basement, elevated above the highest adjacent grade at least as~~  
30 ~~high as the depth number specified in feet on the community's FIRM (at least~~  
31 ~~two (2) feet if no depth number is specified); or, together with attendant utility~~  
32 ~~and sanitary facilities, shall comply with Section 1723 of the Denver Building~~  
33 ~~Code.~~

34 b. Within Zones AH and AO, have adequate drainage paths around  
35 structures on slopes, to guide floodwaters around and away from  
36 proposed structures.

37 c. Upon completion of construction, and prior to Certificate of Occupancy,  
38 a "finished construction" version of the FEMA Elevation Certificate must

1 be submitted to, and approved by, the Floodplain Administrator. If dry  
2 floodproofed, a “construction drawings” version of the FEMA  
3 Floodproofing Certificate must be submitted to, and approved by, the  
4 Floodplain Administrator prior to permit issuance and a “finished  
5 construction” version of the FEMA Floodproofing Certificate must be  
6 submitted to, and approved by, the Floodplain Administrator prior to  
7 validation of Certificate of Occupancy.

8 (3) *Crawlspaces.* New construction, lateral addition, and substantial improvement  
9 involving any crawlspace shall meet the following requirements:

10 a. The crawlspace, and all machinery and equipment, must either:

11 1. Have the interior grade elevated with a minimum of one and one-  
12 half (1.5) feet of freeboard; or

13 2. Be wet floodproofed with a minimum of one and one-half (1.5)  
14 feet of freeboard.

15 b. Wet floodproofing shall only be permitted for crawlspaces meeting the  
16 following requirements:

17 1. They shall be used solely for parking of vehicles, building  
18 access, or limited storage and not used for human habitation;  
19 and

20 2. All associated machinery and equipment shall be elevated or dry  
21 floodproofed to a minimum of the FPE; and

22 3. The interior grade elevation that is below the FPE shall not be  
23 lower than two (2) feet below the lowest adjacent grade; and

24 4. The height of the crawlspace, measured from the bottom of the  
25 floor joist to the top of footing, shall not exceed four (4) feet at  
26 any point; and

27 5. An adequate drainage system that allows floodwaters to drain  
28 from the interior area of the crawlspace following a flood shall be  
29 provided; and

30 6. The enclosed area shall be designed to automatically equalize  
31 hydrostatic flood forces on exterior walls by allowing for the entry  
32 and exit of floodwaters as required under NFIP regulations Sec.  
33 60.3(c)(5).

34 (4) *Accessory structures.* New construction, lateral addition, and substantial  
35 improvement of any accessory structure shall meet the following requirements:

36 a. Have the lowest floor (including basement) and all associated  
37 machinery and equipment be either:

- 1                   1.     Elevated with a minimum of one and one-half (1.5) feet of  
2                         freeboard; or
- 3                   2.     Wet floodproofed with a minimum of one and one-half (1.5) feet  
4                         of freeboard.
- 5                   b.     Within Zones AH and AO, have adequate drainage paths around  
6                         structures on slopes, to guide floodwaters around and away from  
7                         proposed structures.
- 8                   c.     Upon completion of construction, and prior to Certificate of Occupancy,  
9                         a FEMA Elevation Certificate must be submitted to, and approved by,  
10                        the Floodplain Administrator.
- 11                  d.     Wet floodproofing shall only be permitted for accessory structures  
12                         meeting the following requirements:
  - 13                        1.     They shall be used solely for parking of vehicles, building access,  
14                                 or limited storage and not used for human habitation; and
  - 15                        2.     They shall be designed to have low flood damage potential, and  
16                                 be no more than 600 square feet; and
  - 17                        3.     They shall be constructed and placed on the building site so as to  
18                                 offer the minimum resistance to the flow of floodwaters; and
  - 19                        4.     They shall be firmly anchored to prevent floatation, collapse and  
20                                 lateral movement; and
  - 21                        5.     All associated machinery and equipment shall be elevated or dry  
22                                 floodproofed to a minimum of the FPE; and
  - 23                        6.     The enclosed area shall be designed to automatically equalize  
24                                 hydrostatic flood forces on exterior walls by allowing for the entry  
25                                 and exit of floodwaters as required under NFIP regulations Sec.  
26                                 60.3(c)(5); and
  - 27                        7.     They shall not be placed in the floodway unless it meets the  
28                                 provisions of section 56-203(d).

29                  (5)     Critical facilities. New construction, lateral addition, and substantial  
30                         improvement of critical facilities shall be regulated as in section 56-203(e)(2),  
31                         except critical facilities shall be protected to a higher standard than structures  
32                         not determined to be critical facilities. For the purposes of this article,  
33                         protection shall include:

- 34                   a.     Location outside of the regulatory floodplain; or
- 35                   b.     Elevation of the lowest floor (including basement), and all machinery  
36                         and equipment, with a minimum of two (2) feet of freeboard; or
- 37                   c.     Dry floodproofing (including attendant utility and sanitary facilities) with

1 a minimum of two (2) feet of freeboard.

2 d. New critical facilities shall, when practicable, have continuous non-  
3 inundated access (ingress and egress for evacuation and emergency  
4 services) during the base flood.

5 (6) Recreational Vehicles (RV): All RVs placed on sites within Zones A1-30, AH,  
6 and AE on the regulatory floodplain map shall either:

7 a. Be on the site for fewer than 180 consecutive days; or

8 b. Be fully licensed and ready for highway use. A RV is ready for highway  
9 use if it is on wheels or a jacking system, attached to the site only by  
10 quick disconnect type utilities and security devices, and has no  
11 permanently attached additions.

12 (f) Areas removed from SFHA by LOMR-F: For purposes of this article, areas that have  
13 been removed from the SFHA by a FEMA issued LOMR-F are hereby subject to the same  
14 provisions as section 56-203(e)(1), (2), (3), (4) and (5). These areas will not be subject to  
15 floodplain regulation if the LOMR-F area has since been superseded by a standard LOMR.

16  
17 **Section 5.** Section 56-204 (Administration) of the Denver Revised Municipal Code shall be  
18 amended by adding the language underlined, and deleting the language stricken, to read as  
19 follows:

20 **Sec. 56-204. Administration.**

21 (a) *Administration of article by manager of public works.* The administration of the  
22 provisions of this article is hereby vested in and shall be exercised by the manager ~~of the~~  
23 ~~department of public works~~ who may, in accordance with article VI of chapter 2 of the Revised  
24 Municipal Code, prescribe forms and rules and regulations in conformity with this article for the  
25 proper administration and enforcement hereof. The manager ~~of public works~~ may delegate the  
26 administration of this article or any part thereof, subject to the limitations of the Charter and this  
27 Code, to duly qualified deputies and agents of the manager of public works. For the purposes of  
28 this article, the manager ~~of public works~~ shall delegate the administration thereof to the ~~deputy~~  
29 ~~manager of public works for wastewater management~~ designated Floodplain Administrator  
30 except section 56-202(e)(1), "Adoption of regulatory floodplain map," section 56-204(e),  
31 "Variances," and section 56-204(e), "Administrative review."

32 (b) Responsibilities of the Floodplain Administrator.

33 (1) Maintain and hold open for public inspection all records pertaining to the  
34 provisions of this article,

35 (2) Review, approve, or deny, all FEMA Elevation Certificates and Floodproofing  
36 Certificates required as a condition of the Sewer Use and Drainage Permit.

37 (3) Review, approve, or deny all applications related to construction or

1 development in the regulatory floodplain.

2 (4) Review applications to determine whether a proposed building site, including  
3 the placement of manufactured homes, will be reasonably safe from flooding.

4 (5) Review permits for proposed development to assure that all necessary water  
5 and/or floodplain permits have been obtained from those Federal, State or  
6 local governmental agencies (including Section 404 of the Federal Water  
7 Pollution Control Act Amendments of 1972, 33 U.S.C. 1334) from which prior  
8 approval is required.

9 (6) Inspect all development at appropriate times during the period of construction  
10 to ensure compliance with all provisions of this article, including proper  
11 elevation of the structure.

12 (7) Where interpretation is needed as to the exact location of the boundaries of  
13 the regulatory floodplain (for example, where there appears to be a conflict  
14 between a mapped boundary and actual field conditions) the Floodplain  
15 Administrator shall make the necessary interpretation.

16 (8) When base flood elevation data has not been provided in accordance with  
17 section 56-202(d), the Floodplain Administrator shall obtain, review and  
18 reasonably utilize any base flood elevation data and floodway data available  
19 from a Federal, State, or other source, in order to administer the provisions of  
20 this article.

21 (9) Notify, in riverine situations, adjacent communities and the Colorado Water  
22 Conservation Board, prior to any alteration or relocation of a watercourse, and  
23 submit evidence of such notification to FEMA.

24 (10) Ensure that the flood carrying capacity within the altered or relocated portion  
25 of any watercourse is maintained.

26 (b)c) Responsibilities of land developers.

27 (1) Each developer of land within the city has a duty to provide on his/her property  
28 all reasonably necessary drainage and detention facilities to ensure the  
29 adequate drainage and control of stormwaters which fall on his/her properties  
30 or which contribute runoff to his/her property.

31 (2) All subdivision or other development proposals shall:

32 a. Be reasonably safe from flooding and minimize flood damage; and

33 b. Meet all other requirements of this article; and

34 c. Generate BFE data for subdivisions greater than 50 lots or 5 acres,  
35 whichever is lesser, if not otherwise provided; and

36 d. Have adequate drainage provided to reduce exposure to flood hazards;  
37 and

1           e. Have public utilities and facilities such as sewer, gas, electrical,  
2           communications, and water systems located and constructed to  
3           minimize or eliminate flood damage.

4       (23) A storm drainage plan shall be submitted and approved prior to issuing a  
5       wastewater permit for new construction, lateral addition, or substantial  
6       improvement ~~and/or remodeling~~ of a building located in a regulatory floodplain.  
7       Such plan shall be reviewed with regard for generally accepted engineering  
8       principles and standards as follows:

9       a.     The storm drainage plan shall provide the base flood elevations for  
10       those areas where no base flood elevation had previously been  
11       provided, and shall define the alignment and boundary of any natural  
12       drainage course, drainage facility or subdrainage area on the land in  
13       question, and it shall include drawings, profiles, specifications for the  
14       construction of channels, conduits, detention ponds, culverts, bridges  
15       and all other drainage facilities reasonably necessary to ensure that  
16       flood and stormwaters, including drainage from other lands which will  
17       contribute runoff to the subject property, will be adequately drained,  
18       stored, or otherwise controlled; plans drawn to scale showing the  
19       nature, location, dimensions, and elevations of the area in question;  
20       size and location of existing and/or proposed structures, fill, storage of  
21       materials, drainage facilities; regulatory floodplain area and the location  
22       of the foregoing. Specifically, the following information is required:

23           1.     Elevation in relation to mean sea level of the lowest floor  
24           (including basement) of all structures;

25           2.     Elevation in relation to mean sea level to which any  
26           nonresidential structure shall be floodproofed;

27           3.     A certification from a licensed Colorado Professional Engineer or  
28           Architect that the nonresidential floodproofed structure meets the  
29           floodproofing criteria of section 56-203(e)(2).

30           24.    Description of the extent to which any watercourse will be altered  
31           or relocated as a result of proposed development.

32       b.     Included in the plan shall be a schedule containing the estimated dates  
33       of completion of construction for all storm drainage facilities shown on  
34       the ~~plat~~ plan. If and when the plan is approved and the wastewater  
35       permit issued, the owner and applicant shall comply with said schedule.

36       (34) Any improvements to an existing drainageway which will result in a change of  
37       the regulatory floodplain will be constructed consistent with applicable city  
38       criteria and standards. Development within the regulatory floodplain will not be  
39       permitted until the approved drainage improvements have been constructed

1 and the amended floodplain maps have been approved by ~~FEMA~~ and adopted  
2 by the city manager and/or FEMA.

- 3 (5) Proposed revisions or amendments to the SFHA shall be requested of FEMA  
4 by the applicant by submitting all required supporting information to FEMA  
5 following approval by the Floodplain Administrator.
- 6 (6) Proposed changes or improvement to a watercourse which will result in a  
7 request for a physical revision to the SFHA must be preceded by a receipt  
8 from FEMA of a CLOMR. Request for this letter shall be made as in Section  
9 56-204(c)(5) above. Construction of the proposed improvements may not  
10 commence until such letter is received. After construction of the drainageway  
11 improvements, "as constructed" information and any additional supporting  
12 data shall be submitted to FEMA following approval by the Floodplain  
13 Administrator for a LOMR to accomplish revision of the SFHA. Permits for non  
14 permitted uses will not be issued until physical map revisions become  
15 effective.
- 16 (7) Any alteration or relocation of a watercourse or drainageway will require that a  
17 notification report be made to adjoining communities, the Colorado Water  
18 Conservation Board and FEMA that the conveyance capacity of the  
19 watercourse or drainageway shall be maintained within the altered portion of  
20 the drainageway. This report shall be the owner's responsibility and shall be  
21 made prior to construction, but subsequent to approval by FEMA and  
22 coordinated through the Floodplain Administrator.
- 23 (8) For waterways with base flood elevations for which a regulatory floodway has  
24 not been designated, the land developer shall demonstrate that the cumulative  
25 effect of the proposed development, when combined with all other existing and  
26 anticipated development, will not increase the water surface elevation of the  
27 base flood more than one-half (0.5) foot at any point within the community.
- 28 a. Under the provisions of 44 CFR Chapter 1, Section 65.12, of the NFIP  
29 regulations, a community may approve certain development in Zones  
30 A1-30, AE, AH, on the community's FIRM which increases the water  
31 surface elevation of the base flood by more than one-half (0.5) foot,  
32 provided that the developer first applies for a FEMA CLOMR, fulfills the  
33 requirements for such revisions as established under the provisions of  
34 Section 65.12 of the NFIP regulations, and receives FEMA approval.
- 35 (9) Obtain a CLOMR whenever an activity in the floodway is known or suspected  
36 to cause more than a 0.00-foot rise in the proposed conditions compared to  
37 existing conditions BFEs. An exception may be made, at the discretion of the  
38 Floodplain Administrator, when the activity is strictly drainageway maintenance  
39 in which the intent is to restore the natural conditions or hydraulic capacity of  
40 the drainageway provided that the activity does not cause more than a 0.00-



1 foot rise in the proposed conditions compared to effective conditions BFEs and  
2 that any BFE rise compared to existing conditions is contained entirely within  
3 public property which would not otherwise require adverse impact notification.

4 (10) Obtain a LOMR:

- 5 a. Upon completion of an activity approved in a CLOMR; or,  
6 b. Whenever an activity in the floodway is known or suspected to increase  
7 or decrease the BFE in excess of 0.3 vertical feet.

8  
9 (ed) *Boundary mapping disputes.* The boundaries of the regulatory floodplain shall be as  
10 they appear on the official regulatory floodplain maps ~~filed with the clerk and recorder~~. Where there  
11 appears to be a conflict between the boundary lines illustrated on the map and actual field  
12 conditions, the person contesting the location of the boundary shall be given an opportunity to  
13 submit his own technical evidence.

14 No deviation from the boundary line as mapped shall be allowed unless the evidence clearly  
15 and conclusively establishes that the mapped location of the line is incorrect. However, if the  
16 evidence submitted, after review, clearly shows that the recorded boundary does not reflect the  
17 true condition, an exception will ~~may~~ be granted. If the location of the boundary line should still be  
18 in dispute, that person may appeal as provided in section 56-204(ef).

19 (de) *Variances.*

- 20 (1) ~~The deputy manager of public works for wastewater management (deputy)~~  
21 manager or his designee may authorize, upon application in specific cases,  
22 such variances from the terms of this article, subject to terms and conditions  
23 fixed by the ~~deputy manager or his designee~~, as will not be contrary to the  
24 purposes of this article where, owing to exceptional and extraordinary  
25 circumstances, literal enforcement of the provisions of this article will result in  
26 unnecessary hardship. No variance shall be authorized hereunder unless the  
27 ~~deputy manager or his designee~~ shall find:
- 28 a. The variance will not result in an increase in the flood levels in a  
29 designated floodway during a ~~one-hundred-year~~ base flood discharge;
- 30 b. The variance is the minimum necessary to afford relief considering the  
31 flood hazard;
- 32 c. The variance will not result in an increased risk to public safety, a  
33 substantial increase in public expense or a nuisance;
- 34 d. The lowest floor, including the basement, of any residential structure will  
35 be elevated to a minimum of ~~one and one-half (1.5) feet above the level~~  
36 ~~of the one-hundred-year flood~~ the FPE;
- 37 e. The proposed change or development will not unreasonably endanger

1 the life, health, safety, welfare or property of any person in time of  
2 floods, or result in the damming of floodwaters or the contribution of  
3 potentially damaging debris to floodwaters;

4 f. The use requested is a permitted use under the zoning ordinance;

5 g. The applicant is the owner of the subject property;

6 ~~h. The new construction, substantial improvement, and/or remodeling of~~  
7 ~~any structure on a lot of one-half acre or less in size, is contiguous to~~  
8 ~~and surrounded by lots with existing structures constructed below the~~  
9 ~~base flood level. As the lot size increases beyond the one-half acre,~~  
10 ~~increased technical justification is required for issuing the variance.~~

11 (2) The following matters shall be considered by the deputy manager or his  
12 designee in determining all applications for variances:

13 a. The danger that materials may be swept onto other lands to the injury  
14 of others;

15 b. The danger to life and property due to flooding or erosion damage;

16 c. The susceptibility of the proposed facility and its contents to flood  
17 damage and the effect of such damage on the individual owner;

18 d. The importance of the services provided by the proposed facility to the  
19 community;

20 e. The necessity to the facility of a waterfront location where applicable;

21 f. The availability of alternative locations, for the proposed use which are  
22 not subject to flooding or erosion damage;

23 g. The compatibility of the proposed use with the existing and anticipated  
24 development;

25 h. The relationship of the proposed use to the comprehensive plan and  
26 floodplain management program for that area;

27 i. The safety of access to the property in times of flood for ordinary and  
28 emergency vehicles;

29 j. The expected height, velocity, duration, rate of rise, and sediment  
30 transport of the floodwaters and the effects of wave action, if applicable,  
31 expected at the site;

32 k. The costs of providing governmental services during and after flood  
33 conditions including maintenance and repair of public utilities and  
34 facilities such as sewer, gas, electrical, communications, and water  
35 systems, and streets and bridges.

36 (3) Each and every application for a variance shall contain adequate technical

1 information certified by a professional engineer ~~registered~~licensed in the  
2 ~~State~~ which shall include, unless waived in writing by the ~~deputy manager or~~  
3 ~~his designee~~, the following:

- 4 a. A certified topographic survey by a licensed land surveyor of the  
5 applicant's property and surrounding areas that may be affected by any  
6 proposed change; said survey data shall include plan, profile and cross-  
7 sections showing accurate elevations of all points, based upon North  
8 American Vertical Datum (NAVD) of 1988 (or other datum, where  
9 specified)~~United States Geological Survey datum~~, within the limits of  
10 flooding under both existing and proposed conditions;
- 11 b. Drawings and descriptions of any proposed change to ground surface,  
12 topography or natural features or any proposed construction or  
13 modification of any structure or facility within a regulatory floodplain;
- 14 c. Drawings and descriptions defining the probable behavior of  
15 floodwaters across and in the vicinity of the applicant's property and for  
16 a reasonable distance upstream and downstream, under both existing  
17 and proposed conditions; together with all supporting hydrologic data  
18 and hydraulic analysis, computations, backwater curves, flow quantities  
19 and approximate velocities;
- 20 d. Any other information either the applicant, Floodplain Administrator, or  
21 ~~the deputy manager of public works for waste water management~~the  
22 manager or his designee may deem necessary ~~to~~for a thorough and  
23 informed evaluation of the proposed activity;

24 (4) Any applicant to whom a variance is granted shall be given written notice that  
25 the structure will be permitted to be built, added on to, or substantially  
26 improved ~~or remodeled~~ with a lowest floor elevation below the ~~one-hundred-~~  
27 ~~year flood elevation~~FPE and that the cost of flood insurance will be  
28 commensurate with the increased risk resulting from the reduced lowest story  
29 elevation.

30 (5) The ~~deputy~~Floodplain Administrator shall maintain the records of all appeal  
31 actions and report through a notice the issuance of any variance to FEMA  
32 upon request which shall include the following:-

- 33 a. The owner's name, address, phone number and the address of the  
34 project
- 35 b. An explanation of the variance including justification for granting a  
36 variance, base flood elevations, lowest floor elevations, and any other  
37 relevant information.
- 38 c. Any appropriate hydraulic studies

1 (ef) *Administrative review.*

2 (1) Any person who disputes any determination made by or on behalf of the city  
3 pursuant to and by authority of the manager, which determination adversely  
4 affects such person, may petition the manager for a hearing concerning such  
5 determination no later than thirty (30) days after having been notified of any  
6 such determination by the procedure described in D.R.M.C. section 56-106.

7 (2) ~~Such petition shall be in writing and the facts and figures submitted shall be~~  
8 ~~submitted under oath or affirmation either in writing or orally at a hearing~~  
9 ~~scheduled by the manager of public works or his designee. The hearing, if~~  
10 ~~any, shall take place in the city, and notice thereof and the proceedings shall~~  
11 ~~otherwise be in accordance with rules and regulations issued by the manager~~  
12 ~~of public works. The petitioner shall bear the risk of nonpersuasion.~~

13 (3) ~~The deputy management of public works for waste water management shall~~  
14 ~~submit a report to the manager or his designee relative to the effect on the~~  
15 ~~probable behavior of floodwater flows as a result of implementing the~~  
16 ~~applicant's proposal. Such report shall contain recommendations as to~~  
17 ~~whether the action should be approved, denied or approved subject to~~  
18 ~~conditions and shall cite reasons therefor.~~

19 (4) ~~The manager may hold such hearing himself or, in his sole discretion, may~~  
20 ~~designate an officer or employee of the department of public works as a~~  
21 ~~hearing officer with authority to hold such hearings and to make~~  
22 ~~recommendations to the manager.~~

23 (5) ~~Thereupon, the manager shall make a final determination. Such determination~~  
24 ~~shall be considered a final order of the manager and may be reviewed under~~  
25 ~~rule 106(a)(4) of the Colorado Rules of Civil Procedure.~~

26 (6) ~~Every decision or determination of the manager shall be in writing and notice~~  
27 ~~thereof shall be mailed to or served upon the petitioner within a reasonable~~  
28 ~~time from the date of the manager's action, and all such determinations,~~  
29 ~~orders and decisions shall become final upon the expiration of thirty (30) days.~~

30 (7) ~~Subject to the limitations enumerated herein, the manager may reverse or~~  
31 ~~affirm, wholly or partly, or may modify the order, requirement, decision or~~  
32 ~~determination appealed from and may make such order, requirement, decision~~  
33 ~~or determination as ought to be made and, to the end, shall have all of the~~  
34 ~~powers of the office or department from whom the appeal is taken.~~

35 ~~The manager or hearing officer shall hear appeals, and the manager shall~~  
36 ~~decide all appeals where it is alleged there is error in any order, requirement,~~  
37 ~~decision or determination made by an administrative official in the enforcement~~  
38 ~~of this article.~~

39 (fg) *Compliance.* No structure in a regulatory floodplain shall hereafter be located,

1 constructed, enlarged, converted, altered and/or the profile of the land changed without full  
2 compliance with the terms of this article and other applicable regulations. Nothing herein shall  
3 prevent the City and County of Denver from taking such lawful action as is necessary to prevent or  
4 remedy any violation. These regulations meet the minimum requirements as set forth by the  
5 Colorado Water Conservation Board and the NFIP.

6 **Section 6.** Section 56-205 (Enforcement; violations; penalties) of the Denver Revised  
7 Municipal Code shall be amended by adding the language underlined, and deleting the language  
8 stricken, to read as follows:

9 **Sec. 56-205. Enforcement; violations; penalties.**

10 (a) The violation of the provisions of this article or of the rules and regulations of the  
11 ~~manager of public works~~ issued pursuant to this article by any person shall be unlawful.

12 (b) Any person who fails to obey a lawful order to correct any condition which is in  
13 violation of this article shall be subject to a civil penalty of not more than nine hundred ninety-nine  
14 dollars (\$999.00) per day for each day said person remains in violation.

15 (c) Penalties shall be determined by the manager after a hearing as to propriety and  
16 amount thereof. The manager shall consider the history of violations, whether the owner was  
17 negligent, the effect of the owner's ability to continue in business, the gravity of the violation and  
18 demonstrated good faith of the owner in attempting to achieve rapid compliance after notification of  
19 a violation.

20 (d) If not paid, penalties may be collected by the manager by action initiated in the  
21 district court for collection of such penalty.

22 (e) If the owner of land, use of land or structure which is in violation of this article fails to  
23 begin activity which will bring the land, the use of land, or the structure into compliance with this  
24 article, after notice of said violation or violations and within the time specified in said notice, the  
25 department may proceed to correct said violations. If a violation of this article is determined to be  
26 an immediate hazard to life, health, property or public welfare, the manager may order and/or  
27 cause the immediate correction of the condition. The city's costs in correcting any condition which  
28 violated this article shall be recovered as follows:

29 (1) In the event the owner or owners fail to pay the costs and expenses for  
30 correction of the condition, the department shall serve notice upon the person  
31 or persons having a recorded interest therein, of the amount of such costs and  
32 expenses, and that it will, at a time and place specified in the notice, hold a  
33 hearing when and where such persons shall be required to show cause why  
34 the amount should not be paid or a lien should not be placed against the  
35 property.

36 (2) In the event said persons fail to show cause as provided herein, the amount  
37 shall constitute a lien against the real property upon which the condition  
38 existed. The department shall thereafter pay the cost and expense of the  
39 correction of the condition violating this article, from any appropriation made

1 available for that purpose, and shall certify a statement thereof to the manager  
2 of finance who shall record a notice of such lien with the clerk and recorder.  
3 The manager of finance shall assess and charge the same against the  
4 property involved, and collect the same due, plus interest thereon, in the  
5 manner as are delinquent real property taxes. If the lien remains unsatisfied,  
6 the manager of finance shall sell the property involved in the manner  
7 prescribed for sales of property for delinquent property taxes. The lien created  
8 hereby shall be superior and prior to all other liens, regardless of their dates of  
9 recordation, except liens for general taxes and special assessments. In  
10 addition to the remedies set forth herein, an action or other process provided  
11 by law may be maintained by the city to recover or collect any amounts,  
12 including interest, owing under this provision.

13 (3) The lien created thereby shall be superior and prior to other liens, regardless  
14 of date, except liens for general and specific taxes.

15 (f) The city may also petition the district court for the issuance of a preliminary or  
16 permanent injunction, or both, as may be appropriate, restraining any person from the continued  
17 violation of this article.

18 **Section 7** Article V (Floodplain Management) of Chapter 56 (Utilities) of the Denver Revised  
19 Municipal Code shall be and is hereby amended by enacting and adding Section 56-206  
20 (Documents) to read and be read as follows:

21 **Sec. 56-206. Documents.**

22 (a) The following documents shall be maintained by the manager or his designee in  
23 perpetuity:

24 (1) All Sewer Use and Drainage permits issued for floodplain which shall, at a  
25 minimum, list the lowest floor elevation of the structure and the base flood  
26 elevation at its location.

27 (2) All FEMA Elevation Certificates or Floodproofing Certificates required as a  
28 condition of the Sewer Use and Drainage Permit.

29 (3) All regulatory floodplain maps and revisions thereto.

30 (4) All appeals actions.

31 (5) All variance and administrative review actions.

1 COMMITTEE APPROVAL DATE:  
2 MAYOR-COUNCIL DATE:  
3 PASSED BY THE COUNCIL: \_\_\_\_\_, 2013

4 \_\_\_\_\_ - PRESIDENT  
5 APPROVED: \_\_\_\_\_ - MAYOR \_\_\_\_\_, 2013  
6 ATTEST: \_\_\_\_\_ - CLERK AND RECORDER,  
7 EX-OFFICIO CLERK OF THE  
8 CITY AND COUNTY OF DENVER

9 NOTICE PUBLISHED IN THE DAILY JOURNAL: \_\_\_\_\_, 2013; \_\_\_\_\_, 2013

10 PREPARED BY: Adam Hernandez, Assistant City Attorney DATE: \_\_\_\_\_, 2013

11 Pursuant to section 13-12, D.R.M.C., this proposed ordinance has been reviewed by the office of  
12 the City Attorney. We find no irregularity as to form, and have no legal objection to the proposed  
13 ordinance. The proposed ordinance is not submitted to the City Council for approval pursuant to §  
14 3.2.6 of the Charter.

15 Douglas J. Friednash, Denver City Attorney

16 BY: \_\_\_\_\_, Assistant City Attorney DATE: \_\_\_\_\_, 2013