

AN ORDINANCE OF THE COUNCIL OF THE CITY OF NIXA AMENDING CHAPTER 107 OF THE NIXA CITY CODE FOR THE PURPOSE OF UPDATING THE CITY'S REGULATIONS RELATED TO FLOODPLAIN MANAGEMENT

Background:

The proposed amendments to Chapter 107 are designed to meet the minimum Federal requirements for communities that participate in the National Flood Insurance Program (NFIP). When the Federal Emergency Management Agency (FEMA) maps flood hazards in a community, two products are produced, a Flood Insurance Rate Map (FIRM) and a Flood Insurance Study (FIS). A FIRM illustrates the extent of flood hazards in a community by showing flood risk zones and is used with the FIS report to determine the floodplain development regulations that apply in each flood risk zone and who must buy flood insurance. In 2018, Christian County was selected for a DFIRM mapping update. This update will more accurately portray the flood risk throughout the county.

This code amendment is designed from a sample ordinance provided by Missouri's State Emergency Management Agency (SEMA) after they reviewed the City's floodplain management ordinance.

The amendments do not prohibit development in the special flood hazard areas. They are designed to set forth minimum performance standards for new construction or substantially improved structures.

Analysis:

The amendment includes new definitions. For example, the commonly referred to 100-year flood, which is used to reference a flood that is statistically supposed to happen once every one-hundred years. These events are happening more frequently in recent years. The 100-year flood is now referred to as the base flood, which is now added to the definition section of Chapter 107. With more accurate floodplain mapping in Christian County, we now have Numbered A zones. These are special flood hazard areas where the FIRM shows the Base Flood Elevation (BFE). Older FIRMS for Christian County did not show Numbered A Zones. The definition for Numbered A Zone has been added. There are other new definitions that have been added to comply with NFIP requirements.

This amendment will also adopt the new FIRM panels that will be effective November 2, 2023. These new panels will be more detailed than previous panels due to advances in mapping technology and engineering practices regarding floodplains.

Section 107-40 now allows the City Administrator to appoint the Floodplain Administrator for the City. This code section previously appointed the City Planner as the Floodplain Administrator. The duties of the Floodplain Administrator can be performed by many a qualified staff member and should not be exclusively relegated to an individual with the title of City Planner.

Other changes to Section 107 include minor language updates, additional information in specific sections, and eliminating outdated sections.

Planning and Zoning Commission:

A public hearing was held at the September 11th Planning and Zoning Commission meeting. Nobody approached the Commission during the public hearing. The Planning and Zoning Commission unanimously voted to recommend approval to Nixa City Council.

Recommendation:

This code amendment features the minimum required language to continue our participation in the NFIP. Staff recommends the approval of this code amendment.

MEMO SUBMITTED BY:

Scott Godbey | Director of Planning and Development

sgodbey@nixa.com | 417-725-5850

1 AN ORDINANCE OF THE COUNCIL OF THE CITY OF NIXA AMENDING CHAPTER
2 107 OF THE NIXA CITY CODE FOR THE PURPOSE OF UPDATING THE CITY'S
3 REGULATIONS RELATED TO FLOODPLAIN MANAGEMENT.
4

5
6 BE IT ORDAINED BY THE COUNCIL OF THE CITY OF NIXA, AS FOLLOWS,
7 THAT:

8
9 SECTION 1: Chapter 107 of the Nixa City Code is hereby amended by repealing
10 said Chapter in its entirety and adopting in lieu thereof a new Chapter, which shall read
11 as follows:

12
13 (Note: Language to be added is indicated by being underlined. Language to be removed
14 is indicated by being ~~stricken~~.)

15
16 Chapter 107 FLOODPLAIN MANAGEMENT

17
18 ARTICLE I. IN GENERAL

19
20 Sec. 107-1. Definitions

21
22 Unless specifically defined below, words or phrases used in this chapter shall be
23 interpreted so as to give them the same meaning they have in common usage and to give
24 this chapter its most reasonable application.

25
26 *100-year Flood.* See base flood.

27
28 *Accessory structure* means the same as appurtenant structure.

29
30 *Actuarial or Risk Premium Rates* ~~see "risk premium rates." means those rates~~
31 ~~established by the administrator pursuant to individual community studies and~~
32 ~~investigations which are undertaken to provide flood insurance in accordance with section~~
33 ~~1307 of the national Flood Disaster Protection Act of 1973 and the accepted actuarial~~
34 ~~principles. The term "risk premium rates" includes provisions for operating costs and~~
35 ~~allowances.~~

36
37 *Administrator* means the Federal Insurance Administrator.

38
39 *Agency* means the Federal Emergency Management Agency (FEMA).

40
41 *Agricultural Commodities* means agricultural products and livestock.

42
43 *Agricultural Structure* means any structure used exclusively in connection with the
44 production, harvesting, storage, drying, or raising of agricultural commodities.

46 *Appeal* means a request for review of the floodplain administrator's interpretation
47 of any provision of this chapter or a request for a variance.

48
49 *Appurtenant Structure* means a structure that is on the same parcel of property as
50 the principal structure to be insured and the use of which is incidental to the use of the
51 principal structure.

52
53 *Area of Special Flood Hazard* is the land in the floodplain within a community
54 subject to a one percent or greater chance of flooding in any given year.

55
56 *Base Flood* means the flood having a one-percent chance of being equaled or
57 exceeded in any given year.

58
59 *Base Flood Elevation* means the elevation of the surface of the water during a one
60 percent annual chance flood event.

61
62 *Basement* means any area of the structure ~~building~~ having its flood subgrade
63 (below ground level) on all sides.

64
65 *Building*. See *structure*.

66
67 *Chief Executive Officer or Chief Elected Official* means the City Administrator ~~the~~
68 ~~official of the community who is charged with the authority to implement and administer~~
69 ~~laws, ordinances, and regulations for that community.~~

70
71 *Community* means any State or area or political subdivision thereof, which has
72 authority to adopt and enforce floodplain management regulations for the areas within its
73 jurisdiction.

74
75 *Development* means any human-caused ~~manmade~~ change to improved or
76 unimproved real estate, including but not limited to buildings or other structures, levees,
77 levee systems, mining, dredging, filling, grading, paving, excavation or drilling operations,
78 or storage of equipment or materials.

79
80 *Elevated Building* means, for insurance purposes, a non-basement building which
81 has its lowest elevated floor raised above ground level by foundation walls, shear walls,
82 posts, piers, pilings, or columns.

83
84 *Eligible Community or Participating Community* means a community for which the
85 administrator has authorized the sale of flood insurance under the national flood
86 insurance program (NFIP).

87
88 *Existing Construction* means for the purposes of determining rates, structures for
89 which the start of construction commenced before the effective date of the FIRM or before
90 January 1, 1975, for FIRMs effective before that date. The term "existing construction"
91 may also be referred to as "existing structures."

92
93
94
95
96
97
98
99
100
101
102
103
104
105
106
107
108
109
110
111
112
113
114
115
116
117
118
119
120
121
122
123
124
125
126
127
128
129
130
131
132
133
134
135
136
137

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

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

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

- (1) The overflow of inland waters; ~~and/or~~
- (2) The unusual and rapid accumulation or runoff of surface waters from any source; and
- (3) The collapse or subsidence of land along the shore of a 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 an unusually high water level in a natural body of water, accompanied by a severe storm, or by an unanticipated force of nature, such as flash flood, or by some similarly unusual and unforeseeable event which results in flooding as defined above in item (1).

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

Flood Hazard Map means the document adopted by the governing body showing the limits of: (1) the floodplain; (2) the floodway; (3) streets; (4) stream channel; and (5) other geographic features.

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

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

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

138
139
140
141
142
143
144
145
146
147
148
149
150
151
152
153
154
155
156
157
158
159
160
161
162
163
164
165
166
167
168
169
170
171
172
173
174
175
176
177
178
179
180
181
182

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

Flood insurance rate map (FIRM) means an official map of a community, on which the administrator has delineated both the special flood hazard areas and the risk premium zones applicable to the community.

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

Floodplain or Flood Prone Area means any land area susceptible to being inundated by water from any source. (See flooding.)

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

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

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

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

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

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

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

188
189 *Highest Adjacent Grade* means the highest natural elevation of the ground surface
190 prior to construction next to the proposed walls of a structure.

191
192 *Historic Structure* means any structure that is:

193
194 (1) Listed individually in the National Register of Historic Places (a listing
195 maintained by the Department of Interior) or preliminary determined by the
196 Secretary of the Interior as meeting the requirements for individual listing on
197 the National Register;

198
199 (2) Certified or preliminary determined by the Secretary of the Interior as
200 contributing to the historical significance of a registered historic district or a
201 district preliminary determined by the Secretary to qualify as a registered
202 historic district;

203
204 (3) Individually listed on a state inventory of historic places in states with historic
205 preservation programs which have been approved by the Secretary of the
206 Interior; or

207
208 (4) Individually listed on a local inventory of historic places in communities with
209 preservation programs that have been certified either:

210
211 a. By an approved state program as determined by the Secretary of the
212 Interior; or

213
214 b. Directly by the Secretary of the Interior in states without approved programs.

215
216 *Levee* means a manmade structure, usually an earthen embankment, designed
217 and constructed in accordance with south engineering practices to contain, control, or
218 divert the flow of water so as to provide protection from temporary flooding.

219
220 *Levee System* means a flood protection system which consists of a levee or levees
221 and associated structures, such as closure, and drainage devices that are constructed
222 and operated in accordance with sound engineering practices.

223
224 *Lowest Floor* means the lowest floor of the lowest enclosed area (including
225 basement). An unfinished flood-resistant enclosure, useable solely for parking of vehicles,
226 building access, or storage, in an area other than a basement area, is not considered a
227 building's lowest floor, provided that such enclosure is not built so as to render the
228 structure in violation of the applicable floodproofing design requirements of this chapter.

229
230
231
232
233
234
235
236
237
238
239
240
241
242
243
244
245
246
247
248
249
250
251
252
253
254
255
256
257
258
259
260
261
262
263
264
265
266
267
268
269
270
271
272
273
274

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

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

Map means the flood hazard boundary map (FHBM) or the flood insurance rate map (FIRM) for a community issued by the Federal Emergency Management Agency (FEMA).

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

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

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

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

NFIP means the National Flood Insurance Program (NFIP).

Numbered A Zone means a special flood hazard area where the Flood Insurance Rate Map shows the Base Flood Elevation.

One Percent Annual Chance Flood see "base flood."

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

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

278
279 Permit means a signed document from a designated community official authorizing
280 development in a floodplain, including all necessary supporting documentation such as:

281
282 (1) the site plan;

283
284 (2) an elevation certificate; and

285
286 (3) any other necessary or applicable approvals or authorizations from local, state
287 or federal authorities.

288
289 Principally Above Ground means that at least 51 percent of the actual cash value
290 of the structure, less land value, is above ground.

291
292 Reasonably Safe From Flooding means base flood waters will not inundate the
293 land or damage structures to be removed from the SFHA and that any subsurface waters
294 related to the base flood will not damage existing or proposed buildings.

295
296 Recreational vehicle means a vehicle which is:

297
298 (1) Built on a single chassis;

299
300 (2) 400 square feet or less when measured at the largest horizontal projections;

301
302 (3) Designed to be self-propelled or permanently towable by a light-duty truck; and

303
304 (4) Designed primarily not for use as a permanent dwelling but a temporary living
305 quarters for recreational camping, travel, or seasonal use.

306
307 Remedy a Violation means to bring a structure or other development into
308 compliance with federal, state, or local floodplain management regulations; or, if this is
309 not possible, to reduce the impacts of its noncompliance.

310
311 Repetitive Loss means flood-related damages sustained by a structure on two
312 separate occasions during a 10-year period for which the cost of repairs at the time of
313 each such flood event, equals or exceeds twenty-five percent of the market value of the
314 structure before the damage occurred.

315
316 Risk Premium Rates means those rates established by the Administrator pursuant
317 to individual community studies and investigations which are undertaken to provide flood
318 insurance in accordance with Section 1307 of the National Flood Disaster Protection Act
319 of 1973 and the accepted actuarial principles. "Risk premium rates" include provisions for
320 operating costs and allowances.

321
322
323
324
325
326
327
328
329
330
331
332
333
334
335
336
337
338
339
340
341
342
343
344
345
346
347
348
349
350
351
352
353
354
355
356
357
358
359
360
361
362
363
364
365
366

Special Flood Hazard Area. See area of special flood hazard.

Special Hazard Area means an area having special flood hazards and shown on a FHBM or FIRM as zones (unnumbered or numbered) A, AO, A1-30, AE, or AH.

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

State Coordinating Agency means that agency of the state government, or other office designated by the governor of the state or by state statute at the request of the administrator to assist in the implementation of the national flood insurance program (NFIP) in that state.

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

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

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

The term does not apply to:

367
 368 a.) Any project for improvement of a building required to comply with existing health,
 369 sanitary, or safety code specifications which have been identified by the Code
 370 Enforcement Official and which are solely necessary to assure safe living
 371 conditions, or

372
 373 b.) Any alteration of a "historic structure" provided that the alteration will not preclude
 374 the structure's continued designation as a "historic structure."

375
 376 *Substantial Improvement* means any combination of reconstruction, alteration, or
 377 improvement to a building, taking place for a 10-year period, in which the cumulative
 378 percentage of improvement equals or exceeds fifty percent of the current market value of
 379 the building. For the purposes of this definition, an improvement occurs when the first
 380 alteration of any wall, ceiling, floor, or other structural part of the building commences,
 381 whether or not that alteration affects the external dimensions of the building. This term
 382 includes structures, which have incurred "repetitive loss" or "substantial damage",
 383 regardless of the actual repair work done.

384
 385 The term does not apply to:

386
 387 a.) Any project for improvement of a building required to comply with existing health,
 388 sanitary, or safety code specifications which have been identified by the Code
 389 Enforcement Official and which are solely necessary to assure safe living
 390 conditions, or

391
 392 b.) Any alteration of a "historic structure" provided that the alteration will not preclude
 393 the structure's continued designation as a "historic structure."

394
 395 ~~(1) The term "substantial improvement" means any reconstruction, rehabilitation,~~
 396 ~~addition, or other improvement of a structure, the cost of which equals or~~
 397 ~~exceeds 50 percent of the market value of the structure before "start of~~
 398 ~~construction" of the improvement.~~

399
 400 ~~(2) The term "substantial improvement" includes structures which have incurred~~
 401 ~~substantial damage, regardless of the actual repair work performed.~~

402
 403 ~~(3) The term "substantial improvement" does not, however, include either:~~

404
 405 ~~a. Any project for improvement of a structure to correct existing violations of~~
 406 ~~state or local health, sanitary, or safety code specifications that have been~~
 407 ~~identified by the local code enforcement official and which are the minimum~~
 408 ~~necessary to assure safe living conditions; or~~

409
 410 ~~b. Any alteration of an historic structure, provided that the alteration will not~~
 411 ~~preclude the structure's continued designation as an historic structure.~~

412

413 Substantially Improved Existing Manufactured Home Parks Or Subdivisions is
414 where the repair, reconstruction, rehabilitation or improvement of the streets, utilities and
415 pads equals or exceeds 50 percent of the value of the streets, utilities and pads before
416 the repair, reconstruction or improvement commenced.

417
418 Unnumbered A Zone means a special flood hazard area shown on either a flood
419 hazard boundary map or flood insurance rate map where the base flood elevation is not
420 determined.

421
422 *Variance* means a grant of relief by the community from the terms of a floodplain
423 management regulation. Flood insurance requirements remain in place for any varied use
424 or structure and cannot be varied by the community.

425
426 *Violation* means the failure of a structure or other development to be fully compliant
427 with the community's floodplain management regulations. A structure or other
428 development without the elevation certificate, other certifications, or other evidence of
429 compliance required by this chapter is presumed to be in violation until such time as that
430 documentation is provided.

431
432 Water Surface Elevation means the height, in relation to the National Geodetic
433 Vertical Datum (NGVD) of 1929 (or other datum where specified) of floods of various
434 magnitudes and frequencies in the floodplain.

435
436 Sec. 107-2. Penalties for violation.

437
438 (a) Violation of the provisions of this chapter or failure to comply with any of its
439 requirements (including violations of conditions and safeguards established in
440 connection with granting of variances) shall constitute a municipal ordinance violation
441 misdemeanor. Any person, firm, corporation, or other entity that violates the provisions
442 of this Chapter or fails to comply with any of its requirements shall, upon conviction
443 thereof, be fined not more than authorized by applicable state statute or section 1-9
444 of the Nixa City Code, and in addition, and as approved by the municipal judge, shall
445 pay all costs and expenses involved in the case incurred by the City. Each day such
446 violation continues shall be considered a separate offense.

447
448 (b) A structure or other development without a floodplain development permit or other
449 evidence of compliance is presumed to be in violation of the provisions of this Chapter
450 until such documentation is provided.

451
452 (c) The imposition of fines or penalties for any violation for non-compliance with the
453 provisions of this Chapter shall not excuse the violation or noncompliance or allow it
454 to continue. All such violations or noncompliant actions shall be remedied within an
455 established and reasonable time.

456
457 (d) ~~(b)~~ Nothing herein contained shall prevent the city or other appropriate authority from
458 taking such other lawful action as is necessary to prevent or remedy any violation.

459
460
461
462
463
464
465
466
467
468
469
470
471
472
473
474
475
476
477
478
479
480
481
482
483
484
485
486
487
488
489
490
491
492
493
494
495
496
497
498
499
500
501
502
503

Sec. 107-3. Statutory authorization.

The legislature of the State of Missouri ~~state~~ has, in RSMo. 89.020 ~~the Revised Statutes of the State of Missouri~~, delegated the responsibility to local governmental units to adopt floodplain management regulations designated to protect the health, safety, and general welfare.

Sec. 107-4. Findings of fact.

(a) *Flood losses resulting from periodic inundation.* The special flood hazard areas of the city are subject to inundation which results in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief and impairment of the tax base; all of which adversely affect the public health, safety and general welfare.

(b) *General causes of the flood losses.* These flood losses are caused by:

(1) The cumulative effect of obstructions in any designated floodway causing increases in flood heights and velocities; and

(2) The occupancy of flood hazard areas by uses vulnerable to floods, hazardous to others, inadequately elevated, or otherwise unprotected from flood damages.

(c) *Methods used to analyze flood hazards.* The Flood Insurance Study (FIS) that is the basis of this Chapter uses a standard engineering method of analyzing flood hazards, which consists of a series of interrelated steps.

(1) Selection of a base flood that is based upon engineering calculations, which permit a consideration of such flood factors as its expected frequency of occurrence, the area inundated, and the depth of inundation. The base flood selected for this Chapter is representative of large floods, which are characteristic of what can be expected to occur on the particular streams subject to this Chapter. The base flood is the flood that is estimated to have a one percent chance of being equaled or exceeded in any given year as delineated on the Federal Insurance Administrator's FIS, and illustrative materials for Christian County, dated November 2, 2023, as amended, and any future revisions thereto.

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

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

504 (4) Delineation of floodway encroachment lines within which no development is
505 permitted that would cause any increase in flood height.

506
507 (5) Delineation of flood fringe, i.e., that area outside the floodway encroachment lines,
508 but still subject to inundation by the base flood.

509
510 Sec. 107-5. Statement of purpose.

511
512 It is the purpose of this chapter:

513
514 (1) To promote the public health, safety, and general welfare; to minimize those losses
515 described in section 107-4;

516
517 (2) To establish or maintain the community's eligibility for participation in the National
518 Flood Insurance Program (NFIP) as defined in 44 Code of Federal Regulations
519 (CFR) 59.22 (a)(3); and

520
521 (3) To meet the requirements of 44 CFR 60.3(b) by applying the provisions of this
522 chapter to:

523
524 a. Restrict or prohibit uses that are dangerous to health, safety, or property in
525 times of flooding or cause undue increases in flood heights or velocities;

526
527 b. Requires uses vulnerable to floods, including public facilities that serve such
528 uses, be provided with flood protection at the time of initial construction; and

529
530 c. Protect individuals from buying lands that are unsuited for the intended
531 development purposes due to the flood hazard.

532
533 Sec. 107-6. Lands to which this chapter applies.

534
535 (a) This chapter shall apply to all lands within the jurisdiction of the city identified as
536 numbered and unnumbered A zones and AE zones, on the flood insurance rate map
537 (FIRM) panel numbers 29043C0058D, 29043C0059D, 29043C0062D,
538 29043C0064D, 29043C0066D, 29043C0067D, 29043C0068D, 29043C0069D dated
539 November 2, 2023 as amended for Christian County dated December 17, 2010, on
540 panel numbers 29043C0055CC, 29043C0060C, 29043C0065C, and 29043C0070C
541 as amended, and any future revisions thereto.

542
543 (b) In all areas covered by this chapter, no development shall be permitted except through
544 the issuance of a floodplain development permit, granted by the floodplain
545 administrator city council or its duly designated representative under such safeguards
546 and restrictions as the city council or the designated representative may reasonably
547 impose for the promotion and maintenance of the general welfare, health of the
548 inhabitants of the community, and as specifically noted in article III of chapter 101 of
549 the Nixa City Code this subpart.

550
551 Sec. 107-7. Compliance.

552
553 No development located within the special flood hazard areas of this community
554 shall be located, extended, converted, or structurally altered without full compliance with
555 the terms of this chapter and other applicable regulations.

556
557 Sec. 107-8. Abrogation and greater restrictions.

558
559 It is not intended by this chapter to repeal, abrogate, or impair any existing
560 easements, covenants, or deed restrictions. ~~However, where~~ Where this Chapter
561 imposes greater restrictions, the provisions of this chapter shall prevail over other
562 applicable codes, ordinances, or regulations of the City. ~~All other ordinances inconsistent~~
563 ~~with this chapter are hereby repealed to the extent of the inconsistency only.~~

564
565 Sec. 107-9. Interpretation.

566
567 In their interpretation and application, the provisions of this chapter shall be held
568 to be minimum requirements, shall be liberally construed in favor of the City governing
569 ~~body,~~ and shall not be deemed a limitation or repeal of any other power granted by state
570 statutes to the City.

571
572 Sec. 107-10. Warning and disclaimer of liability.

573
574 The degree of flood protection required by this chapter is considered reasonable
575 for regulatory purposes and is based on engineering and scientific methods of study.
576 Larger floods may occur on rare occasions, or the flood heights may be increased by
577 human-caused ~~manmade~~ or natural causes, such as ice jams and bridge openings
578 restricted by debris. This chapter does not imply that areas outside the floodway and flood
579 fringe ~~unnumbered A-zones~~ or land uses permitted within such areas will be free from
580 flooding or flood damage. This chapter shall not create a liability on the part of the city,
581 any officer or employee thereof, for any flood damages that may result from reliance on
582 this chapter or any administrative decision lawfully made thereunder.

583
584 ARTICLE II. ADMINISTRATION AND ENFORCEMENT

585
586 DIVISION 1. GENERALLY

587
588 Sec. 107-39. Amendments.

589
590 The regulations, restrictions, and boundaries set forth in this chapter may from time
591 to time be amended, supplemented, changed, or repealed to reflect any and all changes
592 in the National Flood Disaster Protection Act of 1973, ~~provided, however, that no such~~
593 ~~action may be taken until after a public hearing in relation thereto, at which parties of~~
594 ~~interest and citizens shall have an opportunity to be heard. Notice of the time and place~~
595 ~~of such hearing shall be published in a newspaper of general circulation in the city. At~~

596 ~~least 20 days shall elapse between the date of this publication and the public hearing.~~ A
597 copy of such amendments will be provided to the Region VII office of the Federal
598 Emergency Management Agency (FEMA). The regulations of this chapter are in
599 compliance with the National Flood Insurance Program (NFIP) regulations.

600

601 Sec. 107-40. Floodplain administrator.

602

603 The City Administrator, or their designee, city planner is hereby designated as the
604 floodplain administrator under this chapter. The floodplain administrator is hereby
605 appointed to administer and implement the provisions of this chapter. Should the City
606 Administrator delegate the appointment made herein, such delegation shall be in writing
607 and placed on file with the City Clerk for public inspection.

608

609 Sec. 107-41. Duties and responsibilities of floodplain administrator.

610

611 Duties of the floodplain administrator ~~city planner~~ shall include, but not be limited to:

612

613 (1) Review of all applications for floodplain development permits to ensure that sites are
614 reasonably safe from flooding and that the floodplain development permit
615 requirements of this chapter have been satisfied;

616

617 (2) Review of all applications for floodplain development permits for proposed
618 development to assure that all necessary permits have been obtained from federal,
619 state, or local governmental agencies from which prior approval is required by federal,
620 state, or local law;

621

622 (3) Review all subdivision proposals and other proposed new development, including
623 manufactured home parks or subdivisions, to determine whether such proposals will
624 be reasonably safe from flooding;

625

626 (4) Issue floodplain development permits for all approved applications;

627

628 (5) Notify adjacent communities and the state emergency management agency prior to
629 any alteration or relocation of a watercourse, and submit evidence of such notification
630 to the Federal Emergency Management Agency (FEMA);

631

632 (6) Ensure that the flood carrying capacity is not diminished and shall be maintained
633 within the altered or relocated portion of any watercourse ~~maintenance is provided~~
634 ~~within the altered or relocated portion of any watercourse so that the flood-carrying~~
635 ~~capacity is not diminished; and~~

636

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

639

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

642

643 (9) When floodproofing techniques are utilized for a particular non-residential structure,
644 the floodplain administrator shall require certification from a Missouri registered
645 professional engineer or architect.

646

647 ~~(7) Where base flood elevation from other sources is utilized within unnumbered A-zones:~~

648

649 ~~a. Verify and maintain a record of the actual elevation (in relation to mean sea level)~~
650 ~~of the lowest flood (including basement) of all new or substantially improved~~
651 ~~structures;~~

652

653 ~~b. Verify and maintain a record of the actual elevation (in relation to mean sea level)~~
654 ~~that the new or substantially improved nonresidential structures have been~~
655 ~~floodproofed; and~~

656

657 ~~c. When floodproofing techniques are utilized for a particular nonresidential structure,~~
658 ~~require certification from a registered professional engineer or architect.~~

659

660 Sec. 107-42. Floodplain development permit.

661

662 A floodplain development permit shall be required for all proposed construction or
663 other development, including the placement of manufactured homes, in the areas
664 described in section 107-6. No person, firm, corporation or unit of government shall initiate
665 any development of substantial improvement or cause the same to be done without first
666 obtaining a separate floodplain development permit for each structure or other
667 development.

668

669 Sec. 107-43. Application for floodplain development permit.

670

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

674

675 (1) Describe the land on which the proposed work is to be done by lot, block and tract,
676 house and street address, or similar description that will readily identify and
677 specifically locate the proposed structure building or work;

678

679 (2) Identify and describe the work to be covered by the floodplain development permit;

680

681 (3) Indicate the use of occupancy for which the proposed work is intended;

682

683 (4) Indicate the fair market assessed value of the structure and the fair market value
684 of the improvement;

685

686 (5) Specify whether the development is located in a designated flood fringe or
687 floodway;

688
689 ~~(6)~~(5) Identify the existing base flood elevation and the elevation of the proposed
690 development;

691
692 ~~(7)~~(6) Give such other information as reasonably may be required by the
693 floodplain administrator ~~city planner~~;

694
695 ~~(8)~~(7) Be accompanied by plans and specifications for proposed construction; and

696
697 ~~(9)~~(8) Be signed by the permittee or his authorized agent who may be required to
698 submit evidence to indicate such authority.

699
700 DIVISION 2. VARIANCE AND APPEALS

701
702 Sec. 107-75. Establishment of appeal board.

703
704 The Board of Adjustment ~~city council~~ shall hear and decide appeals and requests
705 for variances from the floodplain management requirements of this chapter.

706
707 Sec. 107-76. Responsibility of appeal board.

708
709 (a) Where an application for a floodplain development permit or request for a variance
710 from the floodplain management regulations is denied by the floodplain administrator
711 ~~city planner~~, the applicant may apply for such floodplain development permit or
712 variance directly to the appeal board, as defined in section 107-75.

713
714 (b) The appeal board ~~city council~~ shall hear and decide appeals when it is alleged that
715 there is an error in any requirement, decision or determination made by the floodplain
716 administrator ~~city planner~~ in the enforcement or administration of this chapter.

717
718 Sec. 107-77. Floodplain management variance criteria.

719
720 In passing upon such applications for variances, the appeal board ~~city council~~ shall
721 consider all technical data and evaluations, all relevant factors, standards specified in
722 other sections of this chapter, and the following criteria:

- 723
724 (1) The danger to life and property due to flood damage;
725
726 (2) The danger that materials may be swept onto other lands to the injury of others;
727
728 (3) The susceptibility of the proposed facility and its contents to flood damage and the
729 effect of such damage on the individual owner;
730
731 (4) The importance of the services provided by the proposed facility to the community;
732
733 (5) The necessity to the facility of a waterfront location, where applicable;

- 734
- 735 (6) The availability of alternative locations, not subject to flood damage, for the proposed
- 736 use;
- 737
- 738 (7) The compatibility of the proposed use with existing and anticipated development;
- 739
- 740 (8) The relationship of the proposed use to the comprehensive plan and floodplain
- 741 management program for that area;
- 742
- 743 (9) The safety of access to the property in times of flood for ordinary and emergency
- 744 vehicles;
- 745
- 746 (10) The expected heights, velocity, duration, rate of rise and sediment transport of the
- 747 floodwaters, if applicable, expected at the site; and
- 748
- 749 (11) The costs of providing governmental services during and after flood conditions
- 750 including maintenance and repair of public utilities and facilities such as sewer, gas,
- 751 electrical; and water systems, streets, and bridges.
- 752

753 Sec. 107-78. Conditions for approving floodplain management variances.

- 754
- 755 (a) Generally, variances may be issued for new construction and substantial
- 756 improvements to be erected on a lot of one-half acre or less in size contiguous to and
- 757 surrounded by lots with existing structures constructed below the base flood level,
- 758 providing subsections (b) through (f) of this section have been fully considered. As the
- 759 lot size increases beyond one-half acre, the technical justification required for issuing
- 760 the variance increases.
- 761
- 762 (b) Variances may be issued for the reconstruction, rehabilitation, or restoration of
- 763 structures listed on the National Register of Historic Places, the state inventory of
- 764 historic places, or local inventory of historic places upon determination provided the
- 765 proposed activity will not preclude the structure's continued historic designation and
- 766 the variance is the minimum necessary to preserve the historic character and design
- 767 of the structure.
- 768
- 769 (c) Variances shall not be issued within any designated floodway if any increase in flood
- 770 levels during the base flood discharge would result.
- 771
- 772 (d) Variances shall only be issued upon a determination that the variance is the minimum
- 773 necessary, considering the flood hazard, to afford relief.
- 774
- 775 (e) Variances shall only be issued upon:
- 776
- 777 (1) A showing of good and sufficient cause;
- 778

779 (2) A determination that failure to grant the variance would result in exceptional
780 hardship to the applicant; and

781
782 (3) A determination that the granting of a variance will not result in increased flood
783 heights, additional threats to public safety, extraordinary public expense, create
784 nuisances, cause fraud on or victimization of the public, or conflict with existing
785 local laws or ordinances.

786
787 (f) A community shall notify the applicant in writing over the signature of a community
788 official that:

789
790 (1) The issuance of a variance to construct a structure below base flood level will result
791 in increased premium rates for flood insurance up to amounts as high as \$25.00
792 for \$100.00 of insurance coverage; and

793
794 (2) Such construction below the base flood level increases risks to life and property.
795 Such notification shall be maintained with the record of all variance actions as
796 required by this chapter.

797
798 (e) The floodplain administrator shall maintain records of all variance actions. The appeal
799 board shall provides justification for the issuance of a variance.

800
801 (f) Variance may be issued for new construction and substantial improvements and for
802 the development necessary for the conduct of a functionally dependent use provided
803 that the criteria of this section is met, and the structure or other development is
804 protected by methods that minimize flood damages during the base flood and create
805 no additional threats to public safety.

806
807 Sec. 107-79. Conditions for approving variances for accessory structures.

808
809 (a) Any variance granted for an accessory structure shall be decided individually based
810 on a case-by-case analysis of the building's unique circumstances.

811
812 (b) Variances granted shall meet the following conditions as well as those criteria and
813 conditions set forth in sections 107-77 and 107-78.

814
815 (c) In order to minimize flood damages during the 100-year flood and the threat to public
816 health and safety, the following conditions shall be included for any variance issued
817 for accessory structures that are constructed at-grade and wet-floodproofed:

818
819 (1) Use of the accessory structures must be solely for parking and limited storage
820 purposes in any special flood hazard area zone A ~~only~~ as identified on the
821 community's flood insurance rate map (FIRM).

822
823 (2) For any new or substantially damaged accessory structures, the exterior and
824 interior building components and elements (i.e., foundation, wall framing, exterior

825 and interior finishes, flooring, etc.) below the base flood elevation, must be built
826 with flood-resistant materials in accordance with section 107-102(c)(2).

827
828 (3) The accessory structures must be adequately anchored to prevent flotation,
829 collapse, or lateral movement of the structure in accordance with section 107-
830 102(c)(1). All of the building's structural components must be capable of resisting
831 specific flood-related forces, including hydrostatic, buoyancy, and hydrodynamic
832 and debris impact forces.

833
834 (4) Any mechanical, electrical, or other utility equipment must be located above the
835 base flood elevation or floodproofed so that they are contained within a watertight,
836 floodproofed enclosure that is capable of resisting damage during flood conditions
837 in accordance with section 107-102(c)(4).

838
839 (5) The accessory structures must meet all National Flood Insurance Program (NFIP)
840 opening requirements. The NFIP requires that enclosure or foundation walls,
841 subject to the 100-year flood, contain openings that will permit the automatic entry
842 and exit of floodwaters in accordance with section 107-103(a)(3).

843
844 (6) The accessory structures must comply with the floodplain management floodway
845 encroachment provision of section 107-103(b)(2). No variances may be issued for
846 accessory structures within any designated floodway, if any increase in flood levels
847 would result during the 100-year flood.

848
849 (7) Equipment, machinery, or other contents must be protected from any flood
850 damage.

851
852 (8) No disaster relief assistance under any program administered by a federal agency
853 shall be paid for any repair or restoration costs of the accessory structures.

854
855 ~~(9) A community shall notify the applicant in writing over the signature of a community
856 official that:~~

857
858 ~~a. The issuance of a variance to construct a structure below base flood level will
859 result in increased premium rates for flood insurance up to amounts as high as
860 \$25.00 for \$100.00 of insurance coverage; and~~

861
862 ~~b. Such construction below the base flood level increases risks to life an property.
863 Such notification shall be maintained with the record of all variance actions as
864 required by this chapter.~~

865
866 (9)~~(10)~~ Wet-floodproofing construction techniques must be reviewed and approved by
867 the community and registered professional engineer or architect prior to the
868 issuance of any floodplain development permit for construction.

869
870 Sec. 107-80. Further appeals.

871
872 Any person aggrieved by the decision of the appeal board or any taxpayer may
873 appeal such decision to the Christian County Circuit Court as provided in RSMo 89.110.
874

875 ARTICLE III. FLOOD HAZARD REDUCTION.

876
877 Sec. 107-102. General standards.

878
879 (a) No permit for floodplain development shall be granted for new construction,
880 substantial improvements, and other improvements, including the placement of
881 manufactured homes, within any unnumbered A ~~zone~~ zones and AE zones, unless
882 the conditions of this section are satisfied.

883
884 (b) All areas identified as unnumbered A zones on the FIRM are subject to inundation of
885 the one percent annual chance (100-year) flood; however, the base flood elevation is
886 not provided. Development within unnumbered A zones is subject to all provisions of
887 this chapter. If flood insurance study data is not available, the community shall obtain,
888 review, and reasonably utilize any base flood elevation or floodway data currently
889 available from federal, state, or other sources.

890
891 (c) Until a floodway is designated, no new construction, substantial improvements, or
892 other development, including fill, shall be permitted within any numbered A zones or
893 AE zones on the community's FIRM, unless it is demonstrated that the cumulative
894 effect of the proposed development, when combined with all other existing and
895 anticipated development, will not increase the water surface elevation of the base
896 flood more than one foot at any point within the community.

897
898 (d)(e) All new construction, subdivision proposals, substantial improvements,
899 prefabricated structures ~~buildings~~, placement of manufactured homes, and other
900 developments shall require:

901
902 (1) Design or adequate anchorage to prevent flotation, collapse, or lateral movement
903 of the structure resulting from hydrodynamic and hydrostatic loads, including the
904 effects of buoyancy;

905
906 (2) Construction with materials resistant to flood damage;

907
908 (3) Utilization of methods and practices that minimize flood damages;

909
910 (4) All electrical, heating, ventilation, plumbing, air-conditioning equipment, and other
911 service facilities be designed and/or located so as to prevent water from entering
912 or accumulating within the components during conditions of flooding;

913
914 (5) New or replacement water supply systems and/or sanitary sewage systems be
915 designed to minimize or eliminate infiltration of floodwaters into the systems and

916 discharges from the systems into floodwaters, and on-site waste disposal systems
917 be located so as to avoid impairment or contamination; and

918
919 (6) Subdivision proposals and other proposed new development, including
920 manufactured home parks or subdivisions, located within special flood hazard
921 areas are required to ensure that:

- 922
- 923 a. All such proposals are consistent with the need to minimize flood damage;
- 924
- 925 b. All public utilities and facilities, such as sewer, gas, electrical, and water
- 926 systems are located and constructed to minimize or eliminate flood damage;
- 927
- 928 c. Adequate drainage is provided so as to reduce exposure to flood hazards; and
- 929
- 930 d. All proposals for development, including proposals for manufactured home
- 931 parks and subdivisions, of five acres or 50 lots, whichever is lesser, include
- 932 within such proposals base flood elevation data.

933
934 ~~(e)~~(d) Storage, material and equipment.

935
936 (1) The storage or processing of materials within the special flood hazard area that
937 are in time of flooding buoyant, flammable, explosive, or could be injurious to
938 human, animal or plant life is prohibited.

939
940 (2) Storage of other material or equipment may be allowed if not subject to major
941 damage by floods, if firmly anchored to prevent flotation or if readily removable
942 from the area within the time available after a flood warning.

943
944 (e) Accessory structures. Structures used solely for parking and limited storage purposes,
945 not attached to any other structure on the site, of limited investment value, and not
946 larger than 400 square feet, may be constructed at-grade and wet-floodproofed
947 provided:

- 948
- 949 (1) There is no human habitation or occupancy of the structure;
- 950
- 951 (2) The structure is of single-wall design;
- 952
- 953 (3) The accessory structure meets the following floodplain management
954 requirements; A variance has been granted from the standard floodplain
955 management requirements of this chapter; and
- 956
- 957 (4) A floodplain development permit has been issued.

958
959 Wet-floodproofing is only required for small low-cost structures.

960
961 (f) Critical facilities.

962
 963 (1) All new or substantially improved critical nonresidential facilities including, but not
 964 limited to, governmental buildings, police stations, fire stations, hospitals,
 965 orphanages, penal institutions, communication centers, water and sewer pumping
 966 stations, water and sewer treatment facilities, transportation maintenance facilities,
 967 places of public assembly, emergency aviation facilities, and schools shall be
 968 elevated above the 500-year flood level or, together with attendant utility and
 969 sanitary facilities, be floodproofed so that below the 500-year flood level, the
 970 structure is watertight with walls substantially impermeable to the passage of water
 971 and with structural components having the capability of resisting hydrostatic and
 972 hydrodynamic loads and the effects of buoyancy. A registered professional
 973 engineer or architect shall certify that the standards of this subsection are satisfied.
 974 Such certification shall be provided to the floodplain administrator as set forth in
 975 the National Flood Insurance Program (NFIP) regulations section 107-41(7)c.
 976

977 (2) All critical facilities shall have access routes that are above the elevation of the
 978 500-year flood.
 979

980 (3) No critical facilities shall be constructed in any designated floodway.
 981

982 (g) *Nonconforming use.* A structure, or the use of a structure or premises that was lawful
 983 before the passage of an amendment of this chapter, but which is not in conformity
 984 with the provisions of this chapter, may be continued subject to the following
 985 conditions:
 986

987 (1) If such structure, use or utility service is discontinued for 12 consecutive months,
 988 any future use of the building shall conform to this chapter.
 989

990 (2) If any nonconforming use or structure is destroyed by any means, including flood,
 991 it shall not be reconstructed if the cost is more than 50 percent of the pre-damaged
 992 market value of the structure. This limitation does not include the cost of any
 993 alteration of a structure listed on the National Register of Historic Places, the state
 994 inventory of historic places, or local inventory of historic places upon determination.
 995

996 Sec. 107-103. Specific standards.
 997

998 (a) In all areas identified as numbered and unnumbered A zones and AE zones, where
 999 base flood elevation data has been provided, as set forth in ~~of special flood hazard,~~
 1000 ~~once base flood elevation data is obtained, as set forth in~~ section 107-102(b), the
 1001 following provisions are required:
 1002

1003 (1) Residential construction. New construction or substantial improvement of any
 1004 residential building, including manufactured homes, shall have the lowest floor,
 1005 including basement, elevated to or one foot above base flood level. The elevation
 1006 of the lowest floor shall be certified by a Missouri licensed land surveyor, engineer,
 1007 or architect.

1008
 1009
 1010
 1011
 1012
 1013
 1014
 1015
 1016
 1017
 1018
 1019
 1020
 1021
 1022
 1023
 1024
 1025
 1026
 1027
 1028
 1029
 1030
 1031
 1032
 1033
 1034
 1035
 1036
 1037
 1038
 1039
 1040
 1041
 1042
 1043
 1044
 1045
 1046
 1047
 1048
 1049
 1050
 1051
 1052
 1053

(2) Nonresidential construction. New construction or substantial improvement of any commercial, industrial, or other nonresidential building (including manufactured homes) shall have the lowest floor, including basement, elevated to or one foot above the base flood level, or together with attendant utility and sanitary facilities, be floodproofed so that below the base flood elevation level, the structure is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy. A Missouri registered professional engineer or architect shall certify that the standards of this subsection are satisfied. Such certification shall be provided to the floodplain administrator as set forth in section 107-41(7)c. The FEMA, Region VII office recommends elevating to one foot above the base flood elevation.

(3) Enclosures below lowest floor. Require, for all new construction and substantial improvements, that fully enclosed areas below lowest floor used solely for parking of vehicles, building access, or storage in an area other than a basement and that are subject to flooding, shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or meet or exceed the following minimum criteria:

- a. A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided; and
- b. The bottom of all openings shall be no higher than one foot above grade. Openings may be equipped with screens, louvers, valves, or other coverings or devices, provided that they permit the automatic entry and exit of floodwaters.

(b) Floodways. Floodways pose an extremely hazardous are due to the velocity of flood waters that carry debris and potential projectiles. In all areas of special flood hazard, once floodway data is obtained, as set forth in this chapter section 107-102(b), the following provisions are required:

- (1) The designated floodway shall be based on the standard that the area chosen for the floodway must be designed to carry the waters of the base flood, without increasing the water surface elevation more than one foot at any point; ~~and~~
- (2) Encroachments ~~The community shall prohibit any encroachments~~, including fill, new construction, substantial improvements, and other development within the designated regulatory floodway unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment would not result in any

1054 increase in flood levels within the community during the occurrence of the base
 1055 flood discharge-;

1056
 1057 (3) Encroachments may be permitted within the adopted regulatory floodway that
 1058 would result in an increase in base flood elevations, provided that the floodplain
 1059 administrator applies for a conditional FIRM and Floodway revisions, fulfills the
 1060 requirements of such revisions as established under the provisions of 44 CFR §
 1061 65.12, and receives the approval of FEMA.

1062
 1063 (4) If the requirements of section 107-103(b)(2) are satisfied, all new construction and
 1064 substantial improvements shall comply with all applicable flood hazard reduction
 1065 provisions of this Chapter.

1066
 1067 (5) In unnumbered A zones, the floodplain administrator shall obtain, review, and
 1068 reasonably utilize any base flood elevation or floodway data currently available
 1069 from Federal, State, or other sources as set forth in section 107-102(b).

1070
 1071 Sec. 107-104. Manufactured homes.

1072
 1073 (a) All manufactured homes to be placed within all unnumbered and numbered A zones
 1074 and AE zones, of the community's FIRM ~~special flood hazard areas~~ shall be required
 1075 to be installed using methods and practices that minimize flood damage. For the
 1076 purposes of this requirement, manufactured homes must be elevated and anchored
 1077 to resist flotation, collapse, or lateral movement. Methods of anchoring may include,
 1078 but are not limited to, use of over-the-top or frame ties to ground anchors.

1079
 1080 (b) Require manufactured homes that are placed or substantially improved within
 1081 unnumbered or numbered A zones and AE zones, on the community's FIRM sites:

1082
 1083 (1) Outside of a manufactured home park or subdivision;

1084
 1085 (2) In a new manufactured home park or subdivision;

1086
 1087 (3) In an expansion to an existing manufactured home park or subdivision; or

1088
 1089 (4) In an existing manufactured home park or subdivision on which a manufactured
 1090 home has incurred substantial damage as a result of a flood; shall

1091
 1092 be elevated on a permanent foundation such that the lowest floor of the manufactured
 1093 home is elevated to one foot above the base flood level and be securely attached to
 1094 an adequately anchored foundation system to resist flotation, collapse, and lateral
 1095 movement. The elevation of the lowest floor shall be certified by a Missouri licensed
 1096 land surveyor, engineer, or architect.

1097
 1098 (c) Require that manufactured homes to be placed or substantially improved on sites in
 1099 an existing manufactured home park or subdivision within all with unnumbered and

1100 numbered A zones and AE zones, on the community's FIRM, that are not subject to
1101 the provisions of subsection (b) of this section, be elevated so that either:

- 1102
- 1103 (1) The lowest floor of the manufactured home is at or one foot* above the base flood
1104 level; or
- 1105
- 1106 (2) The manufactured home chassis is supported by reinforced piers or other
1107 foundation elements of at least equivalent strength that are no less than 36 inches
1108 in height above grade and is securely attached to an adequately anchored
1109 foundation system to resist floatation, collapse, and lateral movement.

1110

1111 Sec. 107-105. Recreational vehicles.

1112

1113 (a) Recreational vehicles placed on sites within all unnumbered and numbered A zones
1114 and AE zones on the community's FIRM are required to either:

- 1115
- 1116 (1) Be on the site for fewer than 180 consecutive days, and be fully licensed and ready
1117 for highway use; or
- 1118
- 1119 (2) Meet the permitting, elevating, and the anchoring requirements for manufactured
1120 homes of this chapter.

1121

1122 (b) A recreational vehicle is ready for highway use if it is on its wheels or jacking system,
1123 is attached to the site only by quick-disconnect type utilities and security devices and
1124 has no permanently attached additions.

1125

1126 **SECTION 2:** Savings Clause. Nothing in this Ordinance shall be construed to
1127 affect any suit or proceeding now pending in any court or any rights acquired, or liability
1128 incurred nor any cause or causes of action occurred or existing, under any act or
1129 ordinance repealed hereby.

1130

1131 **SECTION 3:** Severability Clause. If any section, subsection, sentence, clause, or
1132 phrase of this Ordinance is for any reason held to be invalid, such decision shall not affect
1133 the validity of the remaining portions of this Ordinance. The Council hereby declares that
1134 it would have adopted the Ordinance and each section, subsection, sentence, clause, or
1135 phrase thereof, irrespective of the fact that any one or more sections, subsections,
1136 sentences, clauses, or phrases be declared invalid.

1137

1138 **SECTION 4:** This Ordinance shall be in full force and effect from and after its final
1139 passage by the City Council and after its approval by the Mayor, subject to the provisions
1140 of section 3.11(g) of the City Charter.

1141

1142

1143

1144

1145

1146 **ADOPTED BY THE COUNCIL THIS 10th DAY OF October, 2023.**

1147

1148

ATTEST:

1149

1150

PRESIDING OFFICER

CITY CLERK

1152

1153

1154 **APPROVED BY THE MAYOR THIS _____ DAY OF _____, 2023.**

1155

1156

ATTEST:

1157

1158

MAYOR

CITY CLERK

1160

1161 APPROVED AS TO FORM:

1162

1163

CITY ATTORNEY

1164