

1 MCINTOSH COUNTY BOARD OF COMMISSIONERS
2 DARIEN, GEORGIA
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5 First Reading: August 8, 2023
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9 Second Reading and Adoption: September 12, 2023
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12 At the regular meeting of the McIntosh County Board of Commissioners, held in
13 the McIntosh County Courthouse, Darien, Georgia:
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16 Present:
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19 David Stevens, Chairman
20 Kate Karwacki, Vice-Chairman
21 Roger Lotson, Commissioner
22 William Harrell, Commissioner
23 Davis Poole, Commissioner
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26 On motion of _____, which carried _____, the
27 following Ordinance amendment was adopted:
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30 AN AMENDMENT TO THE CODE OF ORDINANCES OF MCINTOSH COUNTY BY
31 AMENDING CHAPTER 10 ARTICLE IV SECTION 10-54 OF THE MCINTOSH
32 COUNTY FLOOD PREVENTION ORDINANCE
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34 The McIntosh County Board of Commissioners hereby ordains, this _____ day of
35 _____, 2023 that Chapter 10, of the Code of Ordinances is hereby amended to
36 read as follows:
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39 **Sec. 10-54. Provisions for flood hazard reduction.**

40 (a) *General standards.* In all areas of special flood hazard the following provisions are
41 required:
42 (1) New construction and substantial improvements shall be anchored to prevent
43 flotation, collapse and lateral movement of the structure.
44 (2) New construction and substantial improvements shall be constructed with
45 materials and utility equipment resistant to flood damage.
46 (3) New construction and substantial improvements shall be constructed by
47 methods and practices that minimize flood damage.

42 (4) Elevated buildings: All new construction and substantial improvements that
43 include any fully enclosed area located below the lowest floor formed by
44 foundation and other exterior walls shall be designed so as to be an unfinished
45 or flood resistant enclosure. The enclosure shall be designed to equalize
46 hydrostatic flood forces on exterior walls by allowing for the automatic entry
47 and exit of floodwater. (Not applicable in coastal high hazard areas.)

48 a. Designs for complying with this requirement must either be certified by a
49 professional engineer or architect or meet or exceed the following
50 minimum criteria:

51 1. Provide a minimum of two openings having a total net area of not less
52 than one square inch for every square foot of enclosed area subject to
53 flooding;

54 2. The bottom of all openings shall be no higher than one foot above
55 grade; and

56 3. Openings may be equipped with screens, louvers, valves or other
57 coverings or devices provided they permit the automatic flow of
58 floodwater in both directions;

59 b. So as not to violate the "lowest floor" criteria of this article, the unfinished
60 or flood resistant enclosure shall only be used for parking of vehicles,
61 limited storage of maintenance equipment used in connection with the
62 premises, or entry to the elevated area; and

63 c. The interior portion of such enclosed area shall not be finished or
64 partitioned into separate rooms.

65 (5) All heating and air conditioning equipment and components (including
66 ductwork), all electrical, ventilation, plumbing, and other service facilities shall
67 be designed, located and elevated at or above 1 ft. above base flood elevation
68 so as to prevent water from entering or accumulating within the components
69 during conditions of flooding.

70 (6) Manufactured homes shall be anchored to prevent floatation, collapse and
71 lateral movement. Methods of anchoring may include, but are not limited to,
72 use of over-the-top or frame ties to ground anchors. This standard shall be in
73 addition to and consistent with applicable state requirements for resisting wind
74 forces.

75 (7) New and replacement water supply systems shall be designed to minimize or
76 eliminate infiltration of flood waters into the system.

77 (8) New and replacement sanitary sewage systems shall be designed to minimize
78 or eliminate infiltration of flood waters into the systems and discharges from the
79 systems into flood waters.

80 (9) On-site waste disposal systems shall be located and constructed to avoid
81 impairment to them or contamination from them during flooding.

82 (10) Any alteration, repair, reconstruction or improvement to a structure, which is
83 not compliant with the provisions of this article, shall be undertaken only if the
84 non-conformity is not furthered, extended or replaced.

85 (b) **Specific standards.** In all areas of special flood hazard designated as A1-30, AE,
86 AH, A (with engineered or estimated BFE), the following provisions are required:

87 (1) **New construction and substantial improvements.** Where base flood elevation
88 data are available, new construction and substantial improvement of any
89 structure including manufactured home shall have the lowest floor, including
90 basement, elevated no lower than one foot above the base flood elevation.
91 Should solid foundation perimeter walls be used to elevate a structure,
92 openings sufficient to facilitate the unimpeded movements of flood waters shall
93 be provided in accordance with standards of section 10-54(a)(4), elevated
94 buildings.

95 a. All heating and air conditioning equipment and components (including
96 ductwork), all electrical, ventilation, plumbing and other service facilities
97 shall be elevated at or above one foot above the base flood elevation.

98 (2) **Nonresidential construction.** New construction and the substantial improvement
99 of any structure including manufactured housing, may be floodproofed in lieu of
100 elevation. (Not applicable for coastal high hazard areas.) The structure,
101 together with attendant utility and sanitary facilities, must be designed to be
102 water tight to one foot above the base flood elevation, with walls substantially
103 impermeable to the passage of water, and structural components having the
104 capability of resisting hydrostatic and hydrodynamic loads and the effect of
105 buoyancy. A registered professional engineer or architect shall certify that the
106 design and methods of construction are in accordance with accepted
107 standards of practice for meeting the provisions above, and shall provide such
108 certification to the official as set forth above and in section 10-53(c)(6). An
109 operation and maintenance plan shall be prepared to assure the continued
110 viability of floodproofing measures.

111 (3) **Standards for manufactured homes and recreational vehicles.** Where base
112 flood elevation data are available:

113 a. All manufactured homes placed and substantially improved on: (1)
114 individual lots or parcels, (2) in new and substantially improved
115 manufactured home parks or subdivisions, (3) in expansions to existing
116 manufactured home parks or subdivisions, or (4) on a site in an existing
117 manufactured home park or subdivision where a manufactured home has
118 incurred "substantial damage" as the result of a flood, must have the
119 lowest floor, including basement, elevated no lower than one foot above
120 the base flood elevation.

121 b. Manufactured homes placed and/or substantially improved in an existing
122 manufactured home park or subdivision may be elevated so that:

123 1. The lowest floor of the manufactured home is elevated no lower than
124 one foot above the level of the base flood elevation; and

125 2. The manufactured home chassis is elevated and supported by
126 reinforced piers (or other foundation elements of at least an
127 equivalent strength) of no less than 48 inches in height above grade.

128 c. All manufactured homes must be securely anchored to an adequately
129 anchored foundation system to resist flotation, collapse and lateral
130 movement. (See section 10-54(a)(6).)

131 d. All recreational vehicles placed on sites must either:

132 1. Be on the site for fewer than 180 consecutive days;

133 2. Be fully licensed and ready for highway use (a recreational vehicle is
134 ready for highway use if it is licensed, on its wheels or jacking system,
135 attached to the site only by quick disconnect type utilities and security
136 devices, and has no permanently attached structures or additions); or

137 3. The recreational vehicle must meet all the requirements for new
138 construction, including the anchoring and elevation requirements of
139 section 10-54(b)(3) a.—c., above.

140 (4) *Floodway*. Located within areas of special flood hazard established in section
141 10-52(b) are areas designated as floodway. A floodway may be an extremely
142 hazardous area due to velocity floodwaters, debris or erosion potential. In
143 addition, the area must remain free of encroachment in order to allow for the
144 discharge of the base flood without increased flood heights. Therefore, the
145 following provisions shall apply:

146 a. Encroachments are prohibited, including earthen fill, new construction,
147 substantial improvements or other development within the regulatory
148 floodway. Development may be permitted however, provided it is
149 demonstrated through hydrologic and hydraulic analyses performed in
150 accordance with standard engineering practice that the encroachment
151 shall not result in any increase in flood levels or floodway widths during the
152 base flood discharge. A registered professional engineer must provide
153 supporting analysis, technical data and certification thereof.

154 b. Only if section 10-54(b)(4)a. above is satisfied, all new construction and
155 substantial improvements shall comply with all applicable flood hazard
156 reduction provisions of section 10-54.

157 (c) *Building standards for streams without established base flood elevations and
158 floodway (A-zones)*. Located within the areas of special flood hazard established in
159 section 10-52(b), where streams exist but no base flood data and floodway data
160 have been provided (A-zones), the following provisions apply:

161 (1) For subdivisions and developments greater than 50 lots or five acres,
162 whichever is less, base flood elevation data shall be provided for subdivision
163 and all other proposed development, including manufactured home parks and
164 subdivisions. Any changes or revisions to the flood data adopted herein and
165 shown on the FIRM shall be submitted to FEMA for review as a conditional
166 letter of map revision (CLOMR) or conditional letter of map amendment

167 (CLOMA), whichever is applicable. Upon completion of the project, the
168 developer is responsible for submitting the "as-built" data to FEMA in order to
169 obtain the final LOMR.

170 (2) When base flood elevation data or floodway data have not been provided in
171 accordance with section 10-52(b), then the floodplain manager shall obtain,
172 review, and reasonably utilize any scientific or historic base flood elevation and
173 floodway data available from a federal, state, or other source, in order to
174 administer the provisions of section 10-54. Only if data is not available from
175 these sources, the provisions of section 10-54(c)(2) and (3) shall apply.

176 (3) No encroachments, including structures or fill material, shall be located within
177 an area equal to the width of the stream or 25 feet, whichever is greater,
178 measured from the top of the stream bank, unless certification by a registered
179 professional engineer is provided demonstrating that such encroachment shall
180 not result in more than one foot increase in flood levels during the occurrence
181 of the base flood discharge.

182 (4) In special flood hazard areas without base flood elevation data, new
183 construction and substantial improvements shall have the lowest floor of the
184 lowest enclosed area (including basement) elevated no less than three feet
185 above the highest adjacent grade at the building site. (Note: Require the lowest
186 floor to be elevated one foot above the estimated base flood elevation in A-
187 zone areas where a limited detail study has been completed.) Openings
188 sufficient to facilitate the unimpeded movements of floodwaters shall be
189 provided in accordance with standards of section 10-54(a)(4), elevated
190 buildings.

191 a. All heating and air conditioning equipment and components (including
192 ductwork), all electrical, ventilation, plumbing, and other service facilities
193 shall be elevated no less than three feet above the highest adjacent grade
194 at the building site.

195 The floodplain manager shall certify the lowest floor elevation and the
196 record shall become a permanent part of the permit file.

197 (d) *Standards for areas of special flood hazard (Zones AE) with established base flood
198 elevations and without designated floodways.* Located within the areas of special
199 flood hazard established in section 10-52(b), where streams with base flood
200 elevations are provided but no floodways have been designated (Zones AE), the
201 following provisions apply:

202 (1) No encroachments, including fill material, new structures or substantial
203 improvements shall be located within areas of special flood hazard, unless
204 certification by a registered professional engineer is provided demonstrating
205 that the cumulative effect of the proposed development, when combined with
206 all other existing and anticipated development, will not increase the water
207 surface elevation of the base flood more than one foot at any point within the
208 community. The engineering certification should be supported by technical
209 data that conforms to standard hydraulic engineering principles.

210 (2) New construction and substantial improvements shall be elevated or
211 floodproofed to elevations established in accordance with section 10-54(b).

212 (e) *Standards for areas of shallow flooding (AO Zones).* Areas of special flood hazard
213 established in section 10-52(b), may include designated "AO" shallow flooding
214 areas. These areas have base flood depths of one to three feet above ground, with
215 no clearly defined channel. The following provisions apply:

216 (1) All new construction and substantial improvements of residential and
217 nonresidential structures shall have the lowest floor, including basement,
218 elevated to at least one foot above as high as the flood depth number specified
219 (in feet) on the flood insurance rate map (FIRM), above the highest adjacent
220 grade. If no flood depth number is specified, the lowest floor, including
221 basement, shall be elevated at least three feet above the highest adjacent
222 grade. Openings sufficient to facilitate the unimpeded movements of flood
223 waters shall be provided in accordance with standards of section 10-54(a)(4),
224 elevated buildings.

225 The floodplain manager shall certify the lowest floor elevation level and the
226 record shall become a permanent part of the permit file.

227 (2) New construction and the substantial improvement of a nonresidential structure
228 may be floodproofed in lieu of elevation. The structure, together with attendant
229 utility and sanitary facilities, must be designed to be water tight to the specified
230 flood level in section 10-54(e) plus one foot, above highest adjacent grade,
231 with walls substantially impermeable to the passage of water, and structural
232 components having the capability of resisting hydrostatic and hydrodynamic
233 loads and the effect of buoyancy. A registered professional engineer or
234 architect shall certify that the design and methods of construction are in
235 accordance with accepted standards of practice for meeting the provisions
236 above, and shall provide such certification to the official as set forth above and
237 as required in section 10-53(b)(1)c. and (b)(2). An O&M plan shall be
238 submitted to assure continued viability of the floodproofing measures

239 (3) Drainage paths shall be provided to guide floodwater around and away from
240 any proposed structure.

241 (f) *Coastal high hazard areas (V-Zones and Coastal A (LiMWA)).* Located within the
242 areas of special flood hazard established in section 10-52(b) are areas designated
243 as coastal high hazard areas (V-Zones). These areas have special flood hazards
244 associated with wave action and storm surge, therefore, the following provisions
245 shall apply:

246 (1) All new construction and substantial improvements shall be located landward
247 of the reach of mean high tide;

248 (2) All new construction and substantial improvements of existing structures shall
249 be elevated on piles, columns, or shear walls parallel to the flow of water so
250 that the bottom of the lowest supporting horizontal structural member
251 (excluding pilings or columns) is located no lower than one foot above the base
252 flood elevation level. All space below the lowest supporting member shall

253 remain free of obstruction or constructed with non-supporting breakaway walls.
254 Open wood lattice work or decorative screening may be permitted for aesthetic
255 purposes only and must be designed to wash away in the event of abnormal
256 wave action and in accordance with section 10-54(f)(6);

257 (3) All new construction and substantial improvements shall be securely anchored
258 on pilings, or columns;

259 (4) All pile and column foundations and the structures attached thereto shall be
260 anchored to resist flotation, collapse, and lateral movement due to the
261 combined effects of wind and water loads acting simultaneously on all building
262 components, both nonstructural and structural. Water loading values shall
263 equal or exceed those associated with the base flood. Wind loading values
264 shall be in accordance with the most current edition of the Georgia State
265 adopted Standard Building Code.

266 (5) A registered professional engineer or architect shall certify that the design,
267 specifications and plans for construction are in compliance with the provisions
268 contained in section 10-54(e)(2), (3) and (4).

269 (6) All space below the lowest horizontal supporting member must remain free of
270 obstruction. Open wood lattice work or decorative screening may be permitted
271 for aesthetic purposes only and must be designed to wash away in the event of
272 abnormal wave action without causing structural damage to the supporting
273 foundation or elevated portion of the structure. The following design
274 specifications are allowed:

275 a. No solid walls shall be allowed;

276 b. Material shall consist of open wood lattice or insect screening only; and

277 c. If aesthetic open wood lattice work or screening is utilized, any enclosed
278 space shall not be used for human habitation, but shall be designed to be
279 used only for parking of vehicles, building access, or limited storage of
280 maintenance equipment used in connection with the premises.

281 (7) Prior to construction, plans for any structures having open wood latticework or
282 insect screening must be submitted to the floodplain manager for approval.

283 (8) Any alteration, repair, reconstruction or improvement to any structure shall not
284 enclose the space below the lowest floor except with open wood latticework or
285 decorative screening, as provided in this section.

286 (9) There shall be no fill used as structural support, or to elevate areas used for
287 septic tank drain fields. Limited non-compacted fill may be used around the
288 perimeter of a building for landscaping/aesthetic purposes provided the fill will
289 wash out from storm surge (thereby rendering the building free of obstruction)
290 prior to generating excessive loading forces, ramping effects, or wave
291 deflection. The floodplain manager may approve design plans for
292 landscaping/aesthetic fill only after the applicant has provided an analysis by
293 an engineer, architect or soil scientist, which demonstrates that the following
294 factors have been fully evaluated:

295 a. Particle composition of fill material does not have a tendency for excessive
296 natural compaction;

297 b. Volume and distribution of fill will not cause wave deflection to adjacent
298 properties; and

299 c. Slope of fill will not cause wave run-up or ramping.

300 (10) There shall be no alteration of sand dunes or mangrove stands, which would
301 increase potential flood damage.

302 (11) Prohibit the placement of manufactured homes (mobile homes), except in an
303 existing manufactured homes park or subdivision. A replacement
304 manufactured home may be placed on a lot in an existing manufactured home
305 park or subdivision provided the anchoring standards of section 10-54(b)(3) are
306 met.

307 (g) *Standards for subdivisions.*

308 (1) All subdivision proposals and other development proposals shall be consistent
309 with the need to minimize flood damage.

310 (2) All subdivision proposals and other development proposals shall have public
311 utilities and facilities such as sewer, gas, electrical and water systems located
312 and constructed to minimize flood damage.

313 (3) All subdivision proposals and other development proposals shall have
314 adequate drainage provided to reduce exposure to flood hazards.

315 (h) *Standard for critical facilities.*

316 (1) No new critical facilities and substantial improved critical facilities shall be
317 located in the 100-year floodplain or the 500-year floodplain.

318 (2) All ingress and egress from any critical facility must be protected to the 500-
319 year flood elevation.

320 (3) Hazardous materials shall not be stored in the SFHA. The following materials
321 are prohibited in the SFHA. Acetone, ammonia, benzene, calcium carbide,
322 carbon disulfide, celluloid, chlorine, hydrochloric acid, prussic, magnesium,
323 nitric acid, oxides of nitrogen, phosphorus, potassium, sodium and sulfur.

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335 This Amendment shall become effective upon passage.
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338 MCINTOSH COUNTY BOARD OF COMMISSIONERS
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344 DAVID S. STEVENS, CHAIRMAN

345 ATTEST:

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349 MCINTOSH COUNTY CLERK
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