

I. Permit Procedures and Requirements

No owner or developer shall perform any development activities on a site where an Area of Special Flood Hazard is located without first meeting the requirements of this ordinance prior to commencing the proposed activity. Unless specifically excluded by this ordinance, any landowner or developer desiring a permit for a development activity shall submit to the City of Emerson a permit application on a form provided by the City of Emerson Building Department for that purpose.

No permit will be approved for any development activities that do not meet the requirements, restrictions and criteria of this ordinance.

An application for a development project with any Area of Special Flood Hazard located on the site will be required to include a floodplain management / flood damage prevention plan. This plan shall include the following items:

- Site plan, drawn to scale, which includes but is not limited to:
 - Existing and proposed elevations of the area in question and the nature, location and dimensions of existing and/or proposed structures, earthen fill placement, amount and location of excavation material, and storage of materials or equipment;
 - For all proposed structures, spot ground elevations at building corners and 20-foot or smaller intervals along the foundation footprint, or one foot contour elevations throughout the building site;
 - (c) Proposed locations of water supply, sanitary sewer, and utilities;
 - (d) Proposed locations of drainage and stormwater management facilities;
 - (e) Proposed grading plan;
 - (f) Base flood elevations and future-conditions flood elevations;
 - (g) Boundaries of the base flood floodplain and future-conditions floodplain;
 - (h) If applicable, the location of the floodway; and
 - (i) Certification of the above by a registered professional engineer or surveyor.

- Building and Foundation design detail, including but not limited to:
 - Elevation in relation to mean sea level (or highest adjacent grade) of the lowest floor, including basement, of all proposed structures;
 - Elevation in relation to mean sea level to which any non-residential structure will be floodproofed;
 - Certification that any proposed non-residential floodproofed structure meets the criteria in Section 605.2(2);
 - For enclosures below the base flood elevation, location and total net area of foundation openings as required in Section 605.1(5).
 - Design plans certified by a registered professional engineer or architect for all proposed structure(s).

- Description of the extent to which any watercourse will be altered or relocated as a result of the proposed development;
- Hard copies and digital files of computer models, if any, copies of work maps, comparison of pre-and post development conditions base flood elevations, future-conditions flood elevations, flood protection elevations, Special Flood Hazard Areas and regulatory floodway widths, flood profiles and all other computations and other information similar to that presented in the FIS;
- Copies of all applicable State and Federal permits necessary for proposed development; and
- All appropriate certifications required under this ordinance;
- Certification by the applicant that all development activities will be done according to the plan or previously approved revisions.

Notes:

II. Standards for Development

(a) General Standards

- No development shall be allowed within the future-conditions floodplain that could result in any of the following:
 - Raising the base flood elevation or future-conditions flood elevation equal to or more than 0.01 foot;
 - Reducing the base flood or future-conditions flood storage capacity;
 - Changing the flow characteristics as to the depth and velocity of the waters of the base flood or future-conditions flood as they pass both the upstream and the downstream boundaries of the development area; or,
 - Creating hazardous or erosion-producing velocities, or resulting in excessive sedimentation.
- Any development within the future-conditions floodplain allowed under (1) above shall also meet the following conditions:
 - Compensation for storage capacity shall occur between the average ground water table elevation and the base flood elevation for the base flood, and between the average ground water table elevation and the future-condition flood elevation for the future-conditions flood, and lie either within the boundaries of ownership of the property being developed and shall be within the immediate vicinity of the location of

the encroachment. Acceptable means of providing required compensation include lowering of natural ground elevations within the floodplain, or lowering of adjoining land areas to create additional floodplain storage. In no case shall any required compensation be provided via bottom storage or by excavating below the elevation of the top of the natural (pre-development) stream channel unless such excavation results from the widening or relocation of the stream channel;

- Cut areas shall be stabilized and graded to a slope of no less than 2.0 percent;
- Effective transitions shall be provided such that flow velocities occurring on both upstream and downstream properties are not increased or decreased;
- Verification of no-rise conditions (0.01 foot or less), flood storage volumes, and flow characteristics shall be provided via a step-backwater analysis meeting the requirements of Section 604.4;
- Public utilities and facilities, such as water, sanitary sewer, gas, and electrical systems, shall be located and constructed to minimize or eliminate infiltration or contamination from flood waters; and
- Any significant physical changes to the base flood floodplain shall be submitted as a Conditional Letter of Map Revision (CLOMR) or Conditional Letter of Map Amendment (CLOMA), whichever is applicable. The CLOMR submittal shall be subject to approval by the City of Emerson using the Community Consent forms before forwarding the submittal package to FEMA for final approval. The responsibility for forwarding the CLOMR to FEMA and for obtaining the CLOMR approval shall be the responsibility of the applicant. Within six months of the completion of construction, the applicant shall submit as-built surveys for a final Letter of Map Revision (LOMR).

(b) Engineering Study Requirements for Floodplain Encroachments

- An engineering study is required, as appropriate to the proposed development activities on the site, whenever a development proposes to disturb any land within the future-conditions floodplain, except for a residential single-lot development on streams without established base flood elevations and/or floodways for which the provisions of Section 605.4 apply. This study shall be prepared by a currently registered Professional Engineer in the State of Georgia and made a part of the application for a permit. This information shall be submitted to and approved by the City of Emerson prior to the approval of any permit which would authorize the disturbance of land located within the future-conditions floodplain. Such study shall include:
 - Description of the extent to which any watercourse or floodplain will be altered or relocated as a result of the proposed development;

- Step-backwater analysis, using a FEMA-approved methodology approved by the City of Emerson. Cross-sections (which may be supplemented by the applicant) and flow information will be obtained whenever available. Computations will be shown duplicating FIS results and will then be rerun with the proposed modifications to determine the new base flood profiles, and future-conditions flood profiles;
- Floodplain storage calculations based on cross-sections (at least one every 100 feet) showing existing and proposed floodplain conditions to show that base flood floodplain and future-conditions floodplain storage capacity would not be diminished by the development;
- The study shall include a preliminary plat, grading plan, or site plan, as appropriate, which shall clearly define all future-conditions floodplain encroachments.

(c) Floodway Encroachments

Located within Areas of Special Flood Hazard are areas designated as floodway. A floodway may be an extremely hazardous area due to velocity flood waters, debris or erosion potential. In addition, floodways must remain free of encroachment in order to allow for the discharge of the base flood without increased flood heights.

Therefore the following provisions shall apply:

- Encroachments are prohibited, including earthen fill, new construction, substantial improvements or other development within the regulatory floodway, except for activities specifically allowed below;
- Encroachments for bridges, culverts, roadways and utilities within the regulatory floodway may be permitted provided it is demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the encroachment shall not result in any increase to the pre-project base flood elevations, floodway elevations, or floodway widths during the base flood discharge. A registered professional engineer must provide supporting technical data and certification thereof; and,
- If the applicant proposes to revise the floodway boundaries, no permit authorizing the encroachment into or an alteration of the floodway shall be issued by the City of Emerson until an affirmative Conditional Letter of Map Revision (CLOMR) is issued by FEMA and no-rise certification is approved by the City of Emerson Building Official or his designee.

(d) Maintenance Requirements

- The property owner shall be responsible for continuing maintenance as may be needed within an altered or relocated portion of a floodplain on his property so that the flood-carrying or flood storage capacity is not diminished. The City of Emerson Building Official or his designee may direct the property

