

**CITY OF FLORENCE PLANNING COMMISSION  
CITY CENTER – COUNCIL CHAMBERS  
324 WEST EVANS STREET, FLORENCE, SC  
TUESDAY, NOVEMBER 14, 2023 – 6:00 P.M.  
REGULAR MEETING AGENDA**

- I. Call to Order**
  
- II. Invocation**
  
- III. Approval of Minutes**                      Regular meeting on October 10, 2023
  
- IV. Public Hearing and Matter in Position for Action**  
  
PC-2023-32      Request to rezone 1110 Oakland Avenue from NC-6.1 to NC-6.3, specifically identified as Florence County Tax Map Number 90114-08-004.
  
- V. Public Hearing and Matter in Position for Action**  
  
PC-2023-33      Request to amend the Jeffries Creek Overlay District and floodplain development ordinances.
  
- VI. Adjournment**      Next regular meeting is scheduled for December 12, 2023.

**CITY OF FLORENCE, SOUTH CAROLINA PLANNING COMMISSION  
OCTOBER 10, 2023 MINUTES**

**MEMBERS PRESENT:** Drew Chaplin, Shelanda Deas, Betty Gregg, Jerry Keith, Jr., and Xavier Sams

**MEMBER ABSENT:** Charles Howard, Mark Lawhon, Bryant Moses, and Vanessa Murray

**STAFF PRESENT:** Clint Moore, Derek Johnston, and Alane Zlotnicki

**CALL TO ORDER:** Chairman Drew Chaplin called the meeting to order at 6:00 p.m.

**INVOCATION:** Chairman Chaplin asked Mr. Keith to provide the invocation, which he did.

**APPROVAL OF MINUTES:**

Chairman Chaplin asked Commissioners if any changes needed to be made to the September 12, 2023 meeting minutes. There being no changes or discussion, Mr. Keith moved to approve the minutes, Ms. Gregg seconded, and the motion passed unanimously (5-0).

**PUBLIC HEARINGS AND MATTERS IN POSITION FOR ACTION:**

**PC-2023-31 Request to zone CG, following annexation, 700 South Parker Drive, identified as Florence County Tax Map Number 90004-01-018.**

Chairman Chaplin read the introduction to PC-2023-31, then asked Mrs. Zlotnicki for the staff report as submitted to Planning Commission.

Chairman Chaplin confirmed that the Housing Authority was in the City limits; Mrs. Zlotnicki said that it was annexed earlier this year.

There being no other questions for staff, Chairman Chaplin opened the public hearing.

There being no one to speak in favor of or against the request, Chairman Chaplin closed the public hearing and called for a motion.

Mr. Keith moved to approve the request; Ms. Gregg seconded, and the motion passed unanimously (5-0).

**OTHER BUSINESS:** Chairman Chaplin welcomed Shelanda Deas to the Commission. He said he would do a more formal introduction when more Commissioners are present at a later meeting.

**ADJOURNMENT:** There being no other business, Chairman Chaplin asked for a motion to adjourn. Mr. Keith moved to adjourn; Ms. Deas seconded the motion, and the motion passed unanimously (5-0). Chairman Chaplin adjourned the meeting at 6:06 p.m. The next regular meeting is scheduled for November 14, 2023.

Respectfully submitted,  
Alane Zlotnicki, AICP  
Senior Planner

**DEPARTMENT OF PLANNING, RESEARCH & DEVELOPMENT  
STAFF REPORT TO THE  
CITY OF FLORENCE PLANNING COMMISSION  
NOVEMBER 14, 2023**

**AGENDA ITEM:      PC-2023-32      Request to rezone 1110 Oakland Avenue from NC-6.1 to NC-6.3, specifically identified as Florence County Tax Map Number 90114-08-004.**

**I. IDENTIFYING DATA:**

<b>Applicant</b>	<b>Tax Map Number</b>
<b>Gina Tanner</b>	<b>90114-08-004</b>

**II. CURRENT STATUS/PREVIOUS ACTION TAKEN:**

This issue is before the Planning Commission for public hearing and recommendation to City Council. It has not been considered, nor has any previous action been taken, by the Planning Commission.

**III. GENERAL BACKGROUND DATA AND SURROUNDING ZONING AND USES:**

**Current Zoning:**                      Neighborhood Conservation-6.1  
**Proposed Zoning:**                    Neighborhood Conservation-6.3  
**Current Use:**                            Single family house  
**Proposed Use:**                          Townhomes

**North:**                                    NC-6.1: single family detached residential  
**South:**                                    NC-6.1: single family detached residential  
**East:**                                      NC-6.3: multi-family  
**West:**                                      AC: shopping center

**IV. POINTS TO CONSIDER:**

- (1) The 50 feet wide by 250 feet long parcel is currently zoned Neighborhood Conservation-6.1 (NC-6.1), which permits single family detached residential uses only.
- (2) The applicant would like to rezone the parcel to Neighborhood Conservation-6.3 (NC-6.3) with the intent of developing 5 small townhomes with parking on the lot.

- (3) The uses that may be developed under the proposed zoning, per the City of Florence *Unified Development Ordinance*, are those permitted in the NC-6.3 district. This includes single-family detached, single family attached (townhomes), multi-plex, and multi-family residential uses.
- (4) All development is subject to the City of Florence codes and regulations, including lot and design standards which are specific to the residential type. Townhomes are subject to specific design standards including orientation, setbacks, landscaping, and parking.
- (5) Land uses of the adjacent properties are a mixture of residential and commercial uses.
- (6) The Future Land Use Map designates these parcels as Neighborhood Conservation.
- (7) City water and sewer services are available.
- (8) The townhome proposal requires sketch plan approval by Planning Commission before any construction can take place.

## **V. OPTIONS:**

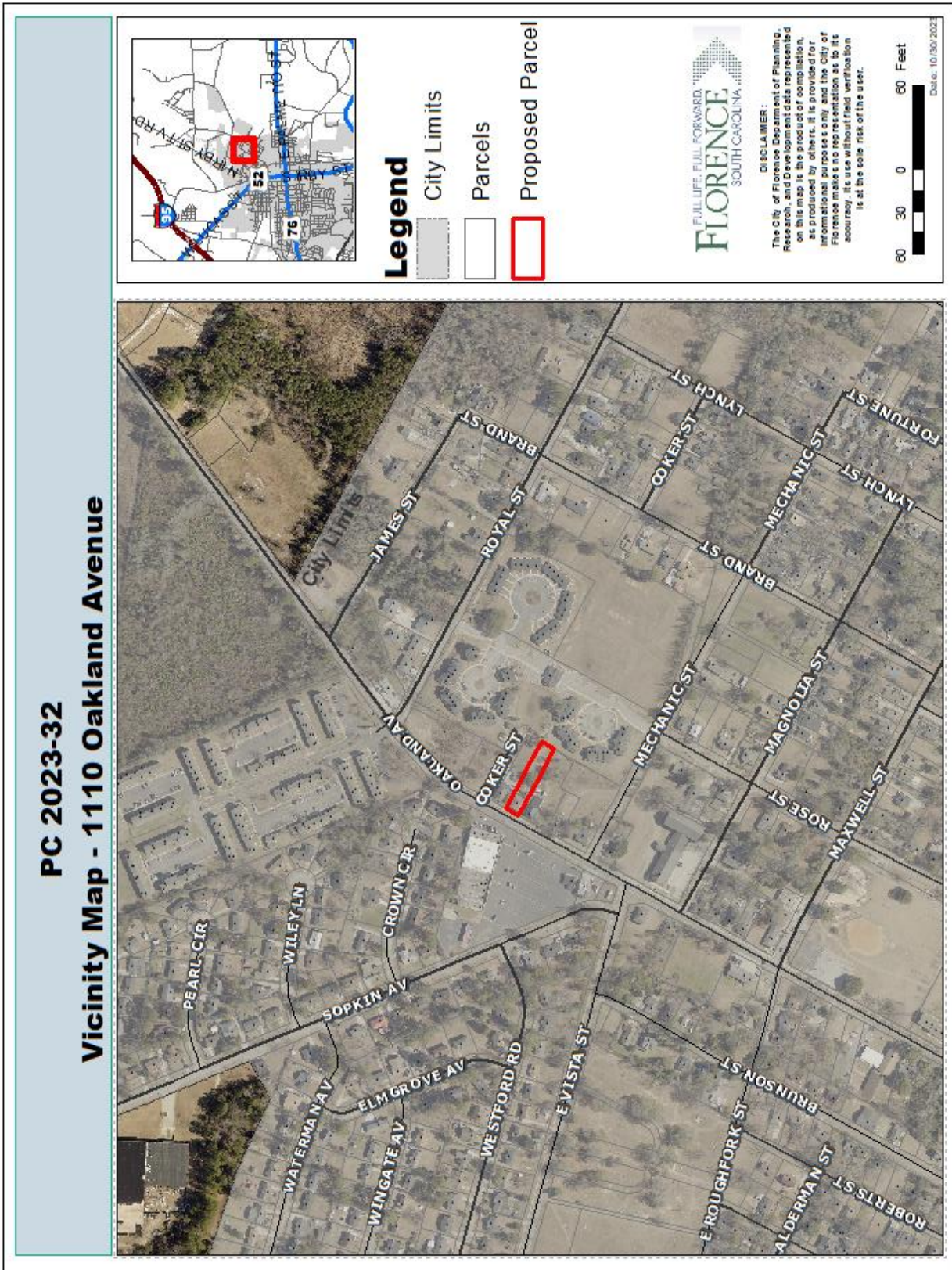
Planning Commission may:

- (1) Recommend approval of the request as presented based on the information submitted.
- (2) Defer the request should additional information be needed.
- (3) Suggest other alternatives.
- (4) Recommend denial of the request based on information submitted.

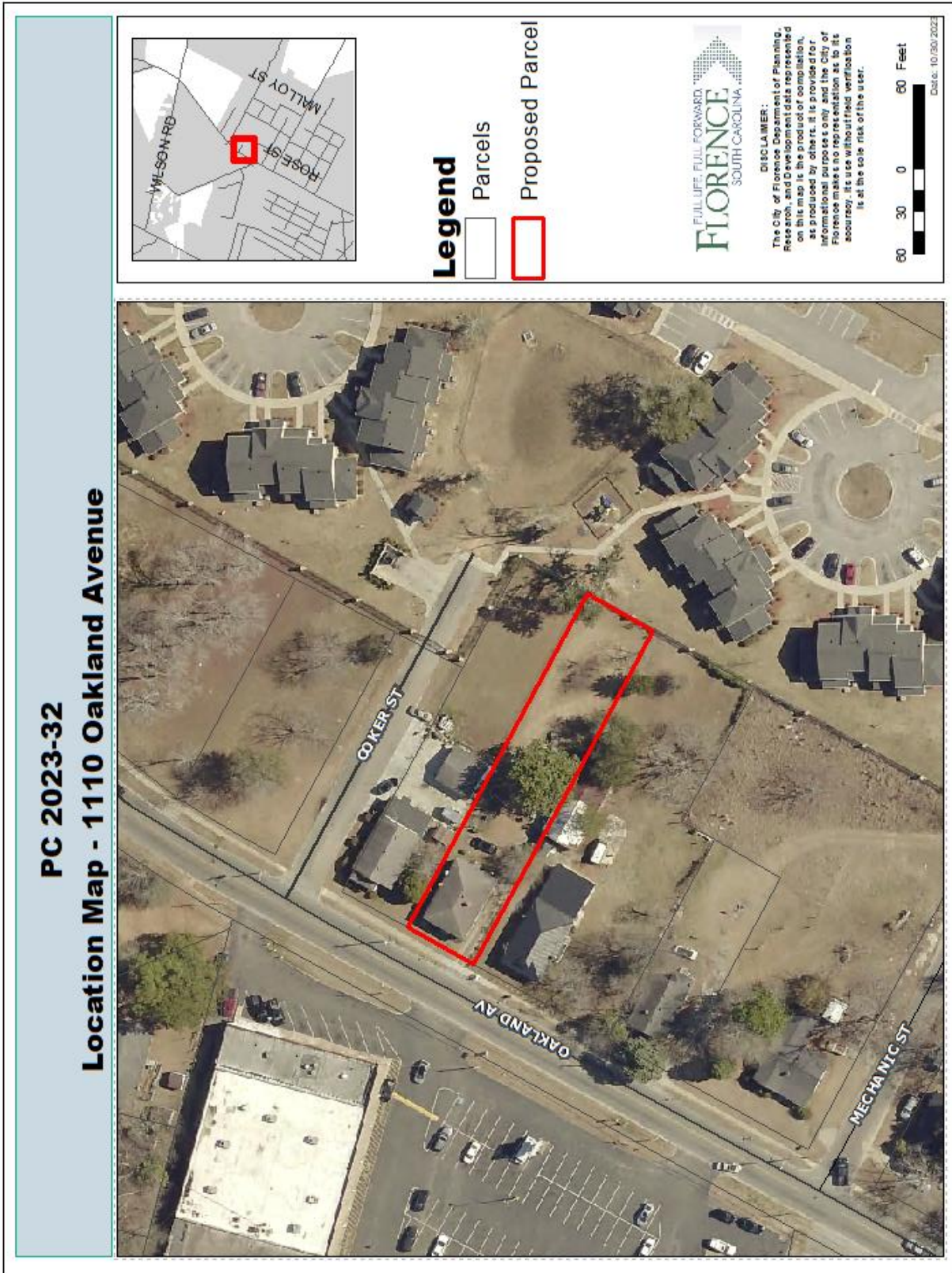
## **VI. ATTACHMENTS:**

- A) Vicinity Map
- B) Location Map
- C) Zoning Map
- D) Future Land Use Map
- E) Site Photos

Attachment A: Vicinity Map

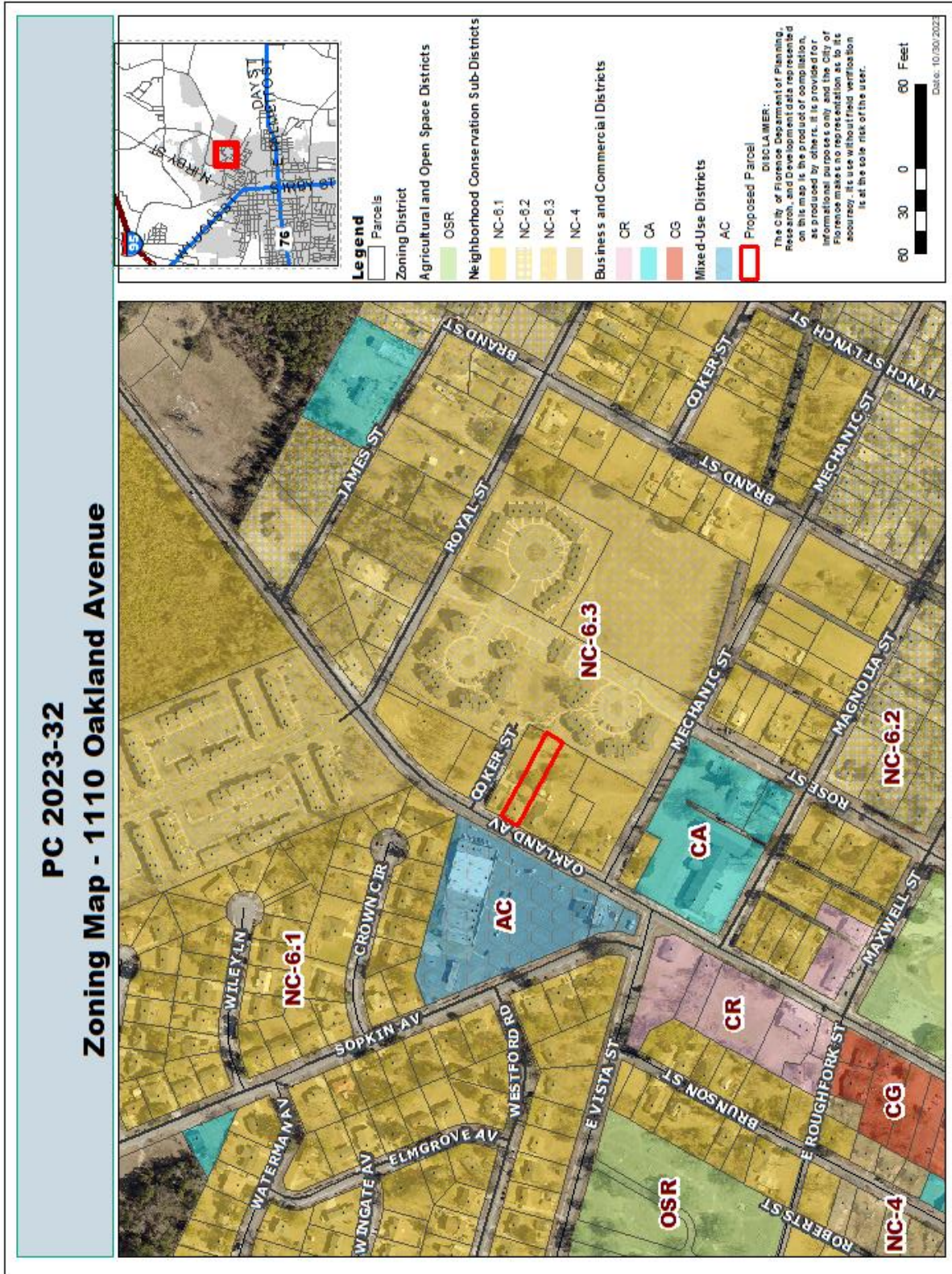




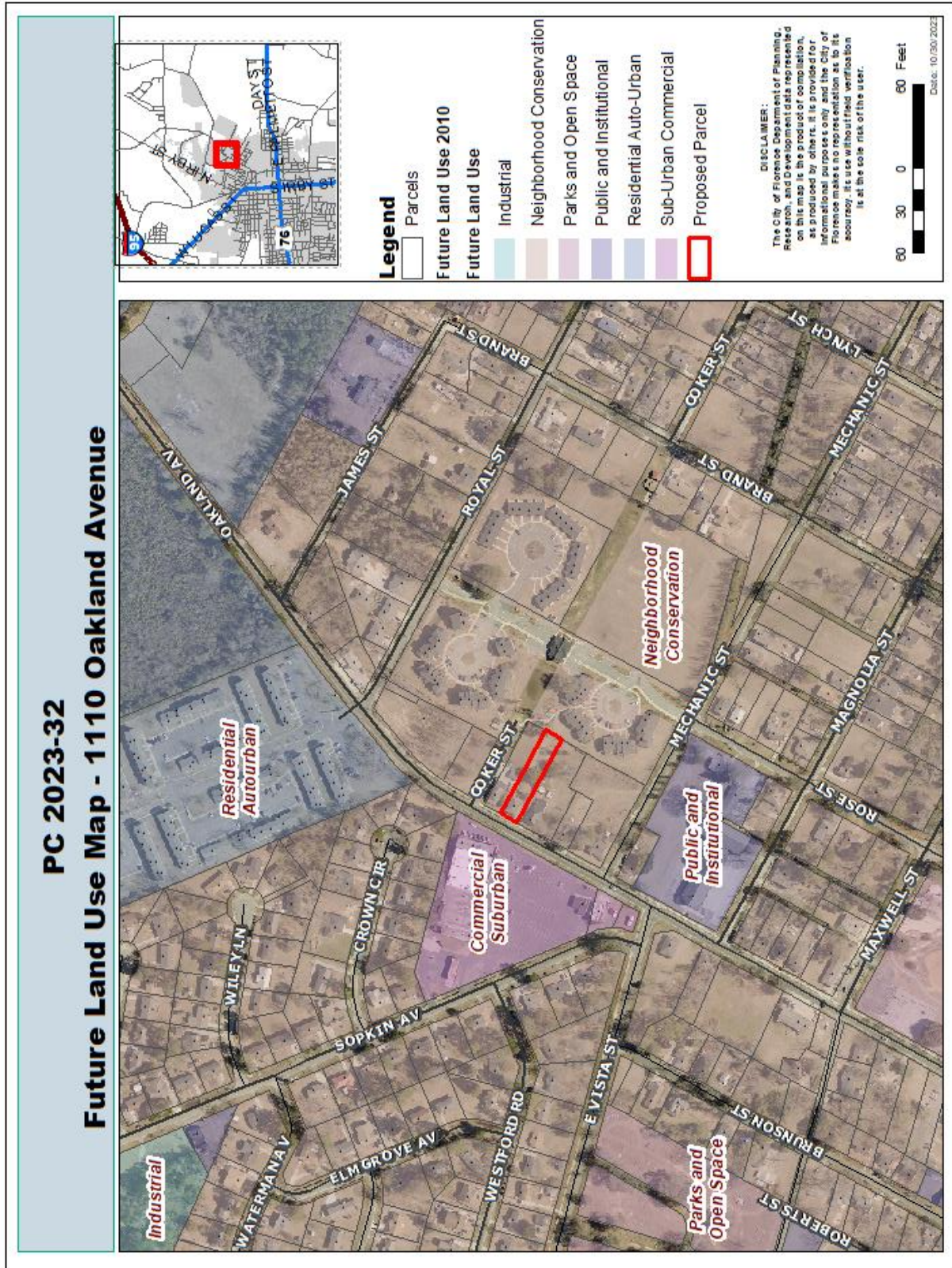




Attachment C: Zoning Map









Attachment E: Site Photos



**DEPARTMENT OF PLANNING, RESEARCH & DEVELOPMENT  
STAFF REPORT TO THE  
CITY OF FLORENCE PLANNING COMMISSION  
NOVEMBER 14, 2023**

**AGENDA ITEM:      PC-2023-33      Proposed text amendment to the Jeffries Creek Overlay District and Flood Prevention sections of the City of Florence Unified Development Ordinance.**

**I. ISSUE UNDER CONSIDERATION:**

The proposed text amendments to Section 4-12.5.1 Riparian Buffer Requirements and Section 4-12.6 Flood Prevention are recommended after the City of Florence conducted its annual review of our Community Rating System, in order to ensure compliance with the South Carolina Flood Damage Prevention Ordinance and to protect the health and functionality of the City’s waterways.

**II. CURRENT STATUS/PREVIOUS ACTION TAKEN:**

This issue is before the Planning Commission for public hearing and recommendation to City Council. It has not been considered, nor has any previous action been taken by the Planning Commission.

**III. POINTS TO CONSIDER:**

- (1) The Community Rating System, established by FEMA, is a voluntary incentive program that recognizes and encourages community floodplain management practices that exceed the minimum requirements of the National Flood Insurance Program (NFIP).
- (2) To comply with the South Carolina Model Flood Damage Prevention Ordinance, city staff is proposing the recommended changes within the Flood Prevention section of the *Unified Development Ordinance*.
- (3) To provide further clarification and assist in the administration of the riparian buffer requirements of the *Unified Development Ordinance*, city staff is proposing the recommended changes.
- (4) City staff has conferred with the State Flood Plain office on the changes and the alignment with the model ordinance. Additionally, city staff has confirmed that the recommended changes will not have an adverse effect on the health and functionality of the City’s waterways.

**IV. OPTIONS:**

Planning Commission may:

- (1) Recommend approval of the request as presented based on the information submitted.
- (2) Defer the request should additional information be needed.
- (3) Suggest other alternatives.
- (4) Recommend denial of the request based on information submitted.

**V. ATTACHMENT:**

Proposed amendments to the *Unified Development Ordinance* (additions are highlighted in yellow, repeals are struck through).



## Division 4-12.5 Riparian Buffers

### Sec. 4-12.5.1 Riparian Buffer Requirements

**A. Application.** The requirements for riparian buffers apply in all zoning districts and to all portions of the water bodies within the City as set out in this Section. Riparian buffer requirements do not apply to wet ponds used as structural best management practices. However, ponds which intersect with stream channels shall meet the buffer requirements of this Section.

**B. Boundaries and Specifications.** The riparian buffer requirements associated with each type of water body are as follows:

1. Level I Water Bodies. Level I water bodies include Black Creek, Jeffries Creek, and Middle Swamp.

a. The Jeffries Creek riparian buffer is a non-development overlay district.

b. A buffer shall be maintained within the floodway, and 20 feet outside of the floodway, as delineated on the Flood Insurance Rate Map (FIRM), dated December 16, 2014, as amended from time to time.

c. Improvements or other activities that are recognized to disturb land ~~or degrade water quality are not permitted,~~ increase the impervious area, or degrade water quality are not permitted unless demonstrated that said impacts provide for a net reduction of impervious area, and contribute to an increased improvement in water quality, preservation of the overall scenic beauty and wildlife habit, and floodplain functionality.

d. Exceptions may be granted for water access (e.g. boardwalks, docks, etc.) or permitted by the Director of Utilities when disturbance is necessary to facilitate drainage in unusual circumstances.

e. The riparian buffer for Level I water bodies are divided into the following zones:

1. Zone 1. A riparian buffer of at least 20 feet is required on each (outer) side of the floodway. This 20-foot offset area shall consist of forest, small trees/shrubs, grassed areas, walking paths, and/or other passive recreational areas.

2. Zone 2. A riparian buffer of at least 20 feet is also required on each (inner) side of the floodway, if available. Clear-cutting is not permitted within the 20-foot offset area. It shall consist of naturally landscaped areas including canopy trees and small trees/shrubs.

3. Zone 3. All remaining areas within the established floodway shall be left undisturbed in perpetuity.

2. Level II Water Bodies. Level II water bodies include, but are not limited to, High Hill Creek, Beaver Dam Creek, Alligator Branch, Gully Branch from Cherokee to Jeffries Creek, Forest Lake, and Pyle Branch, which are natural creek or drainage features with permanent flows.

a. A buffer of at least 30 feet on each side is required, measured from the edge of bank.

b. Improvements or other activities that are recognized to disturb land or degrade water quality are not permitted.

c. Exceptions may be permitted by the Director of Utilities when disturbance is necessary to facilitate drainage in unusual circumstances.

- d. The riparian buffer for Level II water bodies are divided into the following zones:
  - 1. Zone 1. The outer 20 feet shall consist of forest, small trees/shrubs, walking paths, and/or other passive recreational uses.
  - 2. The inner 10 feet shall not be clear-cut and shall be left undisturbed in perpetuity.
- 3. Level III Water Bodies. Level III water bodies include other tributaries, outfalls, and open drainage conveyances.
  - a. A buffer of at least 10 feet is required on each side, measured from the top edge of the existing bank.
  - b. Improvements or other activities that are recognized to disturb land or degrade water quality are not permitted.
  - c. Exceptions may be permitted by the Director of Utilities when disturbance is necessary to facilitate drainage in unusual circumstances.
- C. **Credits toward Bufferyard and Open Space Requirements.** Riparian buffers may count toward the bufferyard and open space requirements of this Unified Development Ordinance.
- D. **Exemptions.** Exemptions may be permitted by the City when disturbance is necessary to facilitate drainage in unusual circumstances or where encroachment is necessary for water access. Exemption requests shall be submitted to the City in accordance with *Section 4-12.1.2, Sediment and Erosion Control, Subsection B., Requirements* of this Article.
- E. **Validity.** The riparian buffer requirements of this Article are not superseded or invalidated by the issuance of any other permit(s).

## **Division 4-12.6 Flood Prevention**

### **Section 4-12.6.1 Adoption of Flood Hazard Area Maps**

- 1. This ordinance shall apply to all areas of special flood hazard within the jurisdiction of the City of Florence as identified by the Federal Emergency Management Agency (FEMA) in its Flood Insurance Study, dated December 16, 2014 with accompanying maps and other supporting data that are hereby adopted by reference and declared to be a part of this ordinance.
- 2. Upon annexation, any special flood hazard areas identified by the Federal Emergency Management Agency (FEMA) in its Flood Insurance Study for the unincorporated areas of Florence County, with accompanying map and other data are adopted by reference and declared part of this ordinance.

### **Section 4-12.6.2 Administration**

#### **1. Development Permit and Certification Requirements.**

- a. **Development Permit:** - Application for a development permit shall be made to the local floodplain administrator on forms furnished by him or her prior to any



development activities. The development permit may include, but not be limited to, plans in duplicate drawn to scale showing: the nature, location, dimensions, and elevations of the area in question; existing or proposed structures; and the location of fill materials, storage areas, and drainage facilities. Specifically, the following information is required:

- i. A plot plan that shows the 100-year floodplain contour or a statement that the entire lot is within the floodplain must be provided by the development permit applicant when the lot is within or appears to be within the floodplain as mapped by the Federal Emergency Management Agency or the floodplain identified pursuant to either the Duties and Responsibilities of the local floodplain administrator of Section 4-12.6.2.2.k or the Standards for Subdivision Proposals of Section 4-12.6.3.2 and the Standards for streams without Estimated Base Flood Elevations and Floodways of Section 4-12.6.3.3. The plot plan must be prepared by or under the direct supervision of a registered land surveyor or professional engineer and certified by it. The plot plan must show the floodway, if any, as identified by the Federal Emergency Management Agency or the floodway identified pursuant to either the duties or responsibilities of the local floodplain administrator of Section 4-12.6.2.2.k or the standards for subdivision proposals of Section 4-12.6.3.2.l and the standards for streams without estimated base flood elevations and floodways of Section 4-12.6.3.3.
- ii. Where base flood elevation data **is** provided as set forth in Section 4-12.6.1 or the duties and responsibilities of the local floodplain administrator of Section 4-12.6.2 the application for a development permit within the flood hazard area shall show:
  - (1) the elevation (in relation to mean sea level) of the lowest floor of all new and substantially improved structures, and
  - (2) if the structure will be floodproofed in accordance with the Non-Residential Construction requirements of Section 4-12.6.2.2.b the elevation (in relation to mean sea level) to which the structure will be floodproofed.
- iii. Where base flood elevation data is **not** provided as set forth in Section 4-12.6.1 or the duties and responsibilities of the local floodplain administrator of Section 4-12.6.2.2.k, then the provisions in the standards for streams without estimated base flood elevations and floodways of Section 4-12.6.3.3 must be met.
- iv. **Alteration of Watercourse:** Where any watercourse will be altered or relocated as a result of proposed development, the application for a development permit shall include a description of the extent of watercourse alteration or relocation, an engineering study to demonstrate that the flood-carrying capacity of the altered or relocated watercourse is maintained and a map showing the location of the proposed watercourse alteration or relocation.

**b. Certifications**

- i. Floodproofing Certification - When a structure is floodproofed, the applicant shall provide certification from a registered, professional engineer or architect that the non-residential, floodproofed structure meets the floodproofing criteria in the non-residential construction requirements of Section 4-12.6.3.2.b and Section 4-12.6.3.5.b.ii.
- ii. Certification During Construction – A lowest floor elevation or floodproofing certification is required after the lowest floor is completed. As soon as possible after completion of the lowest floor and before any further vertical construction commences, or floodproofing by whatever construction means, whichever is applicable, it shall be the duty of the permit holder to submit to the local floodplain administrator a certification of the elevation of the lowest floor, or floodproofed elevation, whichever is applicable, as built, in relation to mean sea level. Said certification shall be prepared by or under the direct supervision of a registered land surveyor or professional engineer and certified by it. Any work done prior to submission of the certification shall be at the permit holder's risk. The local floodplain administrator shall review the floor elevation survey data submitted. The permit holder immediately and prior to further progressive work being permitted to proceed shall correct deficiencies detected by such review. Failure to submit the survey or failure to make said corrections required hereby shall be cause to issue a stop-work order for the project.
- iii. As-built Certification - Upon completion of the development a registered professional engineer, land surveyor or architect, in accordance with SC law, shall certify according to the requirements of Section 4-12.6.2.b.i and ii that the development is built in accordance with the submitted plans and previous pre-development certifications.

**2. Duties and Responsibilities of the Local Floodplain Administrator** - shall include, but not be limited to:

- a. **Permit Review** - Review all development permits to assure that the requirements of this ordinance have been satisfied.
- b. **Requirement of Federal and/or state permits** - Review proposed development to assure that all necessary permits have been received from those governmental agencies from which approval is required by Federal or State law, including section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C 1334.
- c. **Watercourse alterations** –
  - i. Notify adjacent communities and the South Carolina Department of Natural Resources, Land, Water, and Conservation Division, State Coordinator for the National Flood Insurance Program, prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Emergency Management Agency.
  - ii. In addition to the notifications required watercourse alterations per Section 4-



12.6.2.2.c.i, written reports of maintenance records must be maintained to show that maintenance has been provided within the altered or relocated portion of said watercourse so that the flood-carrying capacity is maintained. This maintenance must consist of a comprehensive program of periodic inspections, and routine channel clearing and dredging, or other related functions. The assurance shall consist of a description of maintenance activities, frequency of performance, and the local official responsible for maintenance performance. Records shall be kept on file for FEMA inspection.

- iii. If the proposed project will modify the configuration of the watercourse, floodway, or base flood elevation for which a detailed Flood Insurance Study has been developed, the applicant shall apply for and must receive approval for a Conditional Letter of Map Revision with the Federal Emergency Management Agency prior to the start of construction.
  - iv. Within 60 days of completion of an alteration of a watercourse, referenced in the certification requirements of Section 4-12.6.2.1.b.iv, the applicant shall submit as-built certification, by a registered professional engineer, to the Federal Emergency Management Agency.
- d. **Floodway encroachments** - Prevent encroachments within floodways unless the certification and flood hazard reduction provisions of Section 4-12.6.3.2.e are met.
- e. **Adjoining Floodplains** - Cooperate with neighboring communities with respect to the management of adjoining floodplains and/or flood-related erosion areas in order to prevent aggravation of existing hazards.
- f. **Notifying Adjacent Communities** – Notify adjacent communities prior to permitting substantial commercial developments and large subdivisions to be undertaken in areas of special flood hazard and/or flood-related erosion hazards.
- g. **Certification requirements** –
- i. Obtain and review actual elevation (in relation to mean sea level) of the lowest floor of all new or substantially improved structures, in accordance with administrative procedures outlined in Section 4-12.6.2.1.b.ii.
  - ii. Obtain the actual elevation (in relation to mean sea level) to which the new or substantially improved structures have been floodproofed, in accordance with the floodproofing certification outlined in Section 4-12.6.2.1.b.i.
  - iii. When floodproofing is utilized for a particular structure, obtain certifications from a registered professional engineer or architect in accordance with the non-residential construction requirements outlined in Section 4-12.6.3.2.b.
- h. **Map Interpretation** - Where interpretation is needed as to the exact location of boundaries of the areas of special flood hazard (for example, where there appears to be a conflict between a mapped boundary and actual field conditions), make the necessary interpretation. The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in this article.

- i. **Prevailing Authority** – Where a map boundary showing an area of special flood hazard and field elevations disagree, the base flood elevations for flood protection elevations (as found on an elevation profile, floodway data table, etc.) shall prevail. The correct information should be submitted to FEMA as per the map maintenance activity requirements outlined in Section 4-12.6.3.2.g.ii.
- j. **Use Of Best Available Data** - When base flood elevation data and floodway data has not been provided in accordance with Section 4-12.6.1, obtain, review, and reasonably utilize best available base flood elevation data and floodway data available from a federal, state, or other source, including data developed pursuant to the standards for subdivision proposals outlined in Section 4-12.6.3.2.1, in order to administer the provisions of this ordinance. Data from preliminary, draft, and final Flood Insurance Studies constitutes best available data from a federal, state, or other source. Data must be developed using hydraulic models meeting the minimum requirement of NFIP approved model. If an appeal is pending on the study in accordance with 44 CFR Ch. 1, Part 67.5 and 67.6, the data does not have to be used.
- k. **Special Flood hazard Area/topographic Boundaries Conflict** - When the exact location of boundaries of the areas special flood hazards conflict with the current, natural topography information at the site; the site information takes precedence when the lowest adjacent grade is at or above the BFE, the property owner may apply and be approved for a Letter of Map Amendment (LOMA) by FEMA. The local floodplain administrator in the permit file will maintain a copy of the Letter of Map Amendment issued from FEMA.
- l. **On-Site inspections** - Make on-site inspections of projects in accordance with the administrative procedures outlined in Section 4-12.6.2.3.
- m. **Administrative Notices** - Serve notices of violations, issue stop-work orders, revoke permits and take corrective actions in accordance with the administrative procedures in 4-12.6.2.3.
- n. **Records Maintenance** - Maintain all records pertaining to the administration of this ordinance and make these records available for public inspection.
- o. **Annexations and Detachments** - Notify the South Carolina Department of Natural Resources Land, Water and Conservation Division, State Coordinator for the National Flood Insurance Program within six (6) months, of any annexations or detachments that include special flood hazard areas.
- p. **Federally Funded Development** - The President issued *Executive Order 11988, Floodplain Management May 1977*. E.O. 11988 directs federal agencies to assert a leadership role in reducing flood losses and losses to environmental values served by floodplains. Proposed developments must go through an eight-step review process. Evidence of compliance with the executive order must be submitted as part of the permit review process.
- q. **Substantial Damage Determination** – Perform an assessment of damage from any origin to the structure using FEMA’s Residential Substantial Damage Estimator



(RSDE) software to determine if the damage equals or exceeds 50 percent of the market value of the structure before the damage occurred.

- r. **Substantial Improvement Determination** – Perform an assessment of permit applications for improvements or repairs to be made to a building or structure that equals or exceeds 50 percent of the market value of the structure before the start of construction. Cost of work counted for determining if and when substantial improvement to a structure occurs shall be cumulative for a period of five years. If the improvement project is conducted in phases, the total of all costs associated with each phase, beginning with the issuance of the first permit, shall be utilized to determine whether “substantial improvement” will occur.

*The market values shall be determined by one of the following methods:*

- i. the current assessed building value as determined by the county’s assessor’s office or the value of an appraisal performed by a licensed appraiser at the expense of the owner within the past 6 months.
- ii. one or more certified appraisals from a registered professional licensed appraiser in accordance with the laws of South Carolina. The appraisal shall indicate actual replacement value of the building or structure in its pre-improvement condition, *less the cost of site improvements and depreciation for functionality and obsolescence.*
- iii. Real Estate purchase contract within 6 months prior to the date of the application for a permit.

### **3. Administrative Procedures**

- a. **Inspections of Work in Progress** - As the work pursuant to a permit progresses, the local floodplain administrator shall make as many inspections of the work as may be necessary to ensure that the work is being done according to the provisions of the local ordinance and the terms of the permit. In exercising this power, the floodplain administrator has a right, upon presentation of proper credentials, to enter on any premises within the territorial jurisdiction at any reasonable hour for the purposes of inspection or other enforcement action.
- b. **Stop-Work Orders** - Whenever a building or part thereof is being constructed, reconstructed, altered, or repaired in violation of this ordinance, the floodplain administrator may order the work to be immediately stopped. The stop-work order shall be in writing and directed to the person doing the work. The stop-work order shall state the specific work to be stopped, the specific reasons for the stoppage, and the conditions under which the work may be resumed. Violation of a stop-work order constitutes a misdemeanor.
- c. **Revocation of Permits** - The local floodplain administrator may revoke and require the return of the development permit by notifying the permit holder in writing, stating the reason for the revocation. Permits shall be revoked for any substantial departure from the approved application, plans, or specifications; for refusal or failure to comply with the requirements of state or local laws; or for false statements or misrepresentations made in securing the permit. Any permit mistakenly issued in

violation of an applicable state or local law may also be revoked.

- d. **Periodic Inspections** - The local floodplain administrator and each member of his/her inspections department shall have a right, upon presentation of proper credentials, to enter on any premises within the territorial jurisdiction of the department at any reasonable hour for the purposes of inspection or other enforcement action.
- e. **Violations to be Corrected** - When the local floodplain administrator finds violations of applicable state and local laws, it shall be his/her duty to notify the owner or occupant of the building of the violation. The owner or occupant shall immediately remedy each of the violations of law on the property he owns.
- f. **Actions in Event of Failure to Take Corrective Action:** If the owner of a building or property shall fail to take prompt corrective action, the floodplain administrator shall give him written notice, by certified or registered mail to his last known address or by personal service, that:
  - i. the building or property is in violation of the Flood Damage Prevention Ordinance,
  - ii. a hearing will be held before the local floodplain administrator at a designated place and time, not later than 10 days after the date of the notice, at which time the owner shall be entitled to be heard in person or by counsel and to present arguments and evidence pertaining to the matter; and,
  - iii. following the hearing, the local floodplain administrator may issue such order to alter, vacate, or demolish the building; or to remove fill as appears appropriate.
- g. **Order to Take Corrective Action:** If, upon a hearing held pursuant to the notice prescribed above, the floodplain administrator shall find that the building or development is in violation of the Flood Damage Prevention Ordinance, he/she shall make an order in writing to the owner, requiring the owner to remedy the violation within such period, not less than 60 days, the floodplain administrator may prescribe; provided that where the floodplain administrator finds that there is imminent danger to life or other property, he may order that corrective action be taken in such lesser period as may be feasible.
- h. **Appeal:** Any owner who has received an order to take corrective action may appeal from the order to the local elected governing body by giving notice of appeal in writing to the floodplain administrator and the clerk within 10 days following issuance of the final order. In the absence of an appeal, the order of the floodplain administrator shall be final. The local governing body shall hear an appeal within a reasonable time and may affirm, modify and affirm, or revoke the order.
- i. **Failure to Comply with Order:** If the owner of a building or property fails to comply with an order to take corrective action from which no appeal has been taken, or fails to comply with an order of the governing body following an appeal, he shall be guilty of a misdemeanor and shall be punished in the discretion of the court.

- j. **Denial of Flood Insurance under the NFIP:** If a structure is declared in violation of this ordinance and after all other penalties are exhausted to achieve compliance with this ordinance then the local floodplain administrator shall notify the Federal Emergency Management Agency (FEMA) to initiate a Section 1316 of the National Flood insurance Act of 1968 action against the structure upon the finding that the violator refuses to bring the violation into compliance with the ordinance. Once a violation has been remedied the local floodplain administrator shall notify FEMA of the remedy and ask that the Section 1316 be rescinded.
- k. The following **documents** are incorporated by reference and may be used by the local floodplain administrator to provide further guidance and interpretation of this ordinance as found on FEMA's website at [www.fema.gov](http://www.fema.gov):
  - i. All FEMA Technical Bulletins
  - ii. All FEMA Floodplain Management Bulletins
  - iii. FEMA 348 Protecting Building Utilities from Flood Damage

#### **Section 4-12.6.3 Provisions for Flood Hazard Reduction**

##### **1. General Standards**

Development may not occur in the Special Flood Hazard Area (SFHA) where alternative locations exist due to the inherent hazards and risks involved. Before a permit is issued, the applicant shall demonstrate that new structures cannot be located out of the SFHA and that encroachments onto the SFHA are minimized. In all areas of special flood hazard the following provisions are required:

- a. **Anchoring** - All new construction and substantial improvements shall be anchored to prevent flotation, collapse, and lateral movement of the structure.
- b. **Flood Resistant Materials and Equipment** - All new construction and substantial improvements shall be constructed with flood resistant materials and utility equipment resistant to flood damage in accordance with Technical Bulletin 2, *Flood Damage-Resistant Materials Requirements*, dated 8/08, and available from the Federal Emergency Management Agency.
- c. **Minimize Flood Damage** - All new construction and substantial improvements shall be constructed by methods and practices that minimize flood damages,
- d. **Critical Development** - shall be elevated to the 500 year flood elevation or be elevated to the highest known historical flood elevation (where records are available), whichever is greater. If no data exists establishing the 500 year flood elevation or the highest known historical flood elevation, the applicant shall provide a hydrologic and hydraulic engineering analysis that generates 500 year flood elevation data,



- e. **Utilities** - Electrical, ventilation, plumbing, heating and air conditioning equipment (including ductwork), and other service facilities shall be designed and/or located so as to prevent water from entering or accumulating within the components during conditions of the base flood plus one foot (freeboard).
- f. **Water Supply Systems** - All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system,
- g. **Sanitary Sewage Systems** – New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into the systems and discharges from the systems into floodwaters. On-site waste disposal systems shall be located and constructed to avoid impairment to them or contamination from them during flooding,
- h. **Gas Or Liquid Storage Tanks** – All gas or liquid storage tanks, either located above ground or buried, shall be anchored to prevent floatation and lateral movement resulting from hydrodynamic and hydrostatic loads.
- i. **Alteration, Repair, Reconstruction, Or Improvements** - Any alteration, repair, reconstruction, or improvement to a structure that is in compliance with the provisions of this ordinance, shall meet the requirements of "new construction" as contained in this ordinance. This includes post-FIRM development and structures.
- j. **Non-Conforming Buildings or Uses** - Non-conforming buildings or uses may not be enlarged, replaced, or rebuilt unless such enlargement or reconstruction is accomplished in conformance with the provisions of this ordinance. Provided, however, nothing in this ordinance shall prevent the repair, reconstruction, or replacement of an existing building or structure located totally or partially within the floodway, provided that the bulk of the building or structure below base flood elevation in the floodway is not increased and provided that such repair, reconstruction, or replacement meets all of the other requirements of this ordinance,
- k. **American with Disabilities Act (ADA)** - A building must meet the specific standards for floodplain construction outlined in Section 4-12.6.3, as well as any applicable ADA requirements. The ADA is not justification for issuing a variance or otherwise waiving these requirements. Also, the cost of improvements required to meet the ADA provisions shall be included in the costs of the improvements for calculating substantial improvement.

## 2. Specific Standards

In all areas of special flood hazard (Zones A and AE) where base flood elevation data has been provided, as set forth in Section 4-12.6.1 or outlined in the Duties and Responsibilities of the local floodplain administrator Section 4-12.6.2, the following provisions are required:

- a. **Residential Construction** – All new construction and substantial improvement of any residential structure (including manufactured homes) shall have the lowest floor elevated no lower than one foot above the base flood elevation. No basements are permitted. Should solid foundation perimeter walls be used to elevate a structure, flood openings sufficient to automatically equalize hydrostatic flood forces, shall be

provided in accordance with the elevated buildings requirements in Section 4-12.6.3.2.d.

**b. Non-Residential Construction**

- i. All new construction and substantial improvement of any commercial, industrial, or non-residential structure (including manufactured homes) shall have the lowest floor elevated no lower than one foot above the level of the base flood elevation. Should solid foundation perimeter walls be used to elevate a structure, flood openings sufficient to automatically equalize hydrostatic flood forces, shall be provided in accordance with the elevated buildings requirements in Section 4-12.6.3.2.d. No basements are permitted. Structures located in A-zones may be floodproofed in lieu of elevation provided that all areas of the structure below the required elevation are watertight with walls substantially impermeable to the passage of water, using structural components having the capability of resisting hydrostatic and hydrodynamic loads and the effect of buoyancy.
- ii. A registered, professional engineer or architect shall certify that the standards of this subsection are satisfied. Such certifications shall be provided to the official as set forth in the floodproofing certification requirements in Section 4-12.6.2.1.b.i. A variance may be considered for wet-floodproofing agricultural structures in accordance with the criteria outlined in Article 9 of this ordinance. Agricultural structures not meeting the criteria of Article 9 must meet the non-residential construction standards and all other applicable provisions of this ordinance. Structures that are floodproofed are required to have an approved maintenance plan with an annual exercise. The local floodplain administrator must approve the maintenance plan and notification of the annual exercise shall be provided to it.

**c. Manufactured Homes**

- i. Manufactured homes that are placed or substantially improved on sites outside a manufactured home park or subdivision, in a new manufactured home park or sub-division, in an expansion to an existing manufactured home park or subdivision, or in an existing manufactured home park or subdivision on which a manufactured home has incurred "substantial damage" as the result of a flood, must be elevated on a permanent foundation such that the lowest floor of the manufactured home is elevated no lower than one foot above the base flood elevation and be securely anchored to an adequately anchored foundation system to resist flotation, collapse, and lateral movement.
- ii. Manufactured homes that are to be placed or substantially improved on sites in an existing manufactured home park or subdivision that are not subject to the provisions for residential construction in Section 4-12.6.3.2.a of this ordinance must be elevated so that the lowest floor of the manufactured home is elevated no lower one foot than above the base flood elevation, and be securely anchored to an adequately anchored foundation to resist flotation, collapse, and lateral movement.

iii. Manufactured homes shall be anchored to prevent flotation, collapse, and lateral movement. For the purpose of this requirement, manufactured homes must be anchored to resist flotation, collapse, and lateral movement in accordance with Section 40-29-10 of the *South Carolina Manufactured Housing Board Regulations*, as amended. Additionally, when the elevation requirement would be met by an elevation of the chassis 36 inches or less above the grade at the site, the chassis shall be supported by reinforced piers or engineered foundation. When the elevation of the chassis is above 36 inches in height an engineering certification is required.

iv. An evacuation plan must be developed for evacuation of all residents of all new, substantially improved or substantially damaged manufactured home parks or subdivisions located within flood-prone areas. This plan shall be filed with and approved by the local floodplain administrator and the local Emergency Preparedness Coordinator.

d. **Elevated Buildings** - New construction and substantial improvements of elevated buildings that include fully enclosed areas below the lowest floor that are usable solely for the parking of vehicles, building access, or limited storage in an area other than a basement, and which are subject to flooding shall be designed to preclude finished space and be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters.

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

- (1) Provide a minimum of two openings on different walls having a *total net area* of not less than one square inch for every square foot of enclosed area subject to flooding.
- (2) The bottom of each opening must be no more than 1 foot above the higher of the interior or exterior grade immediately under the opening,
- (3) Only the portions of openings that are below the base flood elevation (BFE) can be counted towards the required net open area.
- (4) Openings may be equipped with screens, louvers, valves, or other coverings or devices provided they permit the automatic flow of floodwaters in both directions.
- (5) Fill placed around foundation walls must be graded so that the grade inside the enclosed area is equal to or higher than the adjacent grade outside the building on at least one side of the building.

ii. Hazardous Velocities - Hydrodynamic pressure must be considered in the design of any foundation system where velocity waters or the potential for debris flow exists. If flood velocities are excessive (greater than 5 feet per second), foundation systems other than solid foundation walls should be



considered so that obstructions to damaging flood flows are minimized.

iii. *Enclosures Below Lowest Floor*

- (1) Access to the enclosed area shall be the minimum necessary to allow for parking of vehicles (garage door) or limited storage of maintenance equipment used in connection with the premises (standard exterior door) or entry to the living area (stairway or elevator).
- (2) The interior portion of such enclosed area shall not be finished or partitioned into separate rooms, must be void of utilities except for essential lighting as required for safety, and cannot be temperature controlled.
- (3) One wet location switch and/or outlet connected to a ground fault interrupt breaker may be installed below the required lowest floor elevation specified in the specific standards outlined in Section 4-12.6.3.2.a, b, and c.
- (4) All construction materials below the required lowest floor elevation specified in the specific standards outlined in Section 4-12.6.3.2.a, b, c, and d should be of flood resistant materials.

e. **Floodways** - Located within areas of special flood hazard established in Section 1.4, are areas designated as floodways. The floodway is an extremely hazardous area due to the velocity of floodwaters that carry debris and potential projectiles and has erosion potential. The following provisions shall apply within such areas:

- i. No encroachments, including fill, new construction, substantial improvements, additions, and other developments shall be permitted unless:
  - (1) 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 increase impact in the flood levels during the occurrence of the base flood. Such certification and technical data shall be presented to the local floodplain administrator, or;
  - (2) A Conditional Letter of Map revision (CLOMR) has been approved by FEMA. A Letter of Map Revision must be obtained upon completion of the proposed development.
- ii. If Section 4-12.6.3.2.ed.i is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of Section 4-12.6.3.
- iii. No manufactured homes shall be permitted, except in an existing manufactured home park or subdivision. A replacement manufactured home may be placed on a lot in an existing manufactured home park or subdivision

provided the anchoring and the elevation standards of Section 4-12.6.3.2.c and the encroachment standards of Section 4-12.6.3.2.e.i are met.

- iv. Permissible uses within floodways may include: general farming, pasture, outdoor plant nurseries, horticulture, forestry, wildlife sanctuary, game farm, and other similar agricultural, wildlife, and related uses. Also, lawns, gardens, play areas, picnic grounds, and hiking and horseback riding trails are acceptable uses, provided that they do not employ structures or fill. Substantial development of a permissible use may require a no-impact certification. The uses listed in this subsection are permissible only if and to the extent that they do not cause any increase in base flood elevations or changes to the floodway configuration.

**f. Recreational Vehicles**

i. A recreational vehicle is ready for highway use if it is:

- (1) on wheels or jacking system
- (2) attached to the site only by quick-disconnect type utilities and security devices; and
- (3) has no permanently attached additions

ii. Recreational vehicles placed on sites shall either be:

- (1) on site for fewer than 180 consecutive days; or
- (2) be fully licensed and ready for highway use, or
- (3) meet the development permit and certification requirements of Section 4-12.6.2.2, general standards outlined in Section 4-12.6.3.1, and manufactured homes standards in Section 4-12.6.2.2.c and d.

- g. **Map Maintenance Activities** – The National Flood Insurance Program (NFIP) requires flood data to be reviewed and approved by FEMA. This ensures that flood maps, studies and other data identified in Section 4-12.6.1 accurately represent flooding conditions so appropriate floodplain management criteria are based on current data. The following map maintenance activities are identified:

i. Requirement to Submit New Technical Data

- (1) For all development proposals that impact floodway/floodplain delineations or base flood elevations, the community shall ensure that a **Letter of Map Revision** ~~technical or scientific data~~ reflecting the **impacts such changes** be submitted to FEMA as soon as practicable, but no later than six months of the date such information becomes available. These development proposals include; but not limited to::
  - (a) Floodway encroachments that increase or decrease base flood elevations or alter floodway boundaries;
  - (b) Fill sites to be used for the placement of proposed structures where the applicant desires to remove the site from the special flood hazard area;

- (c) Alteration of watercourses that result in a relocation or elimination of the special flood hazard area, including stream restoration and the placement of culverts; and
    - (d) Subdivision or large scale development proposals requiring the establishment of base flood elevations in accordance with Section 4-12.6.3.3.a.
  - (2) It is the responsibility of the applicant to have technical data, required in accordance with Section 4-12.6.3.2.g, prepared in a format required for a Conditional Letter of Map Revision or Letter of Map Revision, and submitted to FEMA. Submittal and processing fees for these map revisions shall also be the responsibility of the applicant.
  - (3) The local floodplain administrator shall require a Conditional Letter of Map Revision prior to the issuance of a floodplain development permit for:
    - (a) Proposed floodway encroachments that increase the base flood elevation; and or
    - (b) Proposed development which increases the base flood elevation by more than one foot in areas where FEMA has provided base flood elevations but no floodway.
  - (4) Floodplain development permits issued by the local floodplain administrator shall be conditioned upon the applicant obtaining a Letter of Map Revision from FEMA for any development proposal subject to Section 4-12.6.3.2.g.
- ii. Right to Submit New Technical Data - The floodplain administrator may request changes to any of the information shown on an effective map that does not impact floodplain or floodway delineations or base flood elevations, such as labeling or planimetric details. Such a submission shall include appropriate supporting documentation made in writing by the local jurisdiction and may be submitted at any time.

#### **h. Accessory Structures**

- i. A detached accessory structure or garage, the cost of which is greater than \$3,000, must comply with the requirements as outlined in FEMA's Technical Bulletin 7-93 *Wet Floodproofing Requirements or be elevated in accordance with Section 4-12.6.3.2.a and d or dry floodproofed in accordance with Section 4-12.6.3.2.b.*
- ii. If accessory structures of \$3,000 or less are to be placed in the floodplain, the following criteria shall be met:
  - (1) Accessory structures shall not be used for any uses other than the

parking of vehicles and storage,

- (2) Accessory structures shall be designed to have low flood damage potential,
  - (3) Accessory structures shall be constructed and placed on the building site so as to offer the minimum resistance to the flow of floodwaters,
  - (4) Accessory structures shall be firmly anchored to prevent flotation, collapse and lateral movement of the structure,
  - (5) Service facilities such as electrical and heating equipment shall be installed in accordance with Article IV.A.5,
  - (6) Openings to relieve hydrostatic pressure during a flood shall be provided below base flood elevation in conformance with Section 4-12.6.3.2.d.i, and
  - (7) Accessory structures shall be built with flood resistance materials in accordance with Technical Bulletin 2, *Flood Damage-Resistant Materials Requirements*, dated 8/08, and available from the Federal Emergency Management Agency. Class 4 and 5 materials, referenced therein, are acceptable flood-resistant materials.
- i. **Swimming Pool Utility Equipment Rooms** - If the building cannot be built at or above the BFE, because of functionality of the equipment then a structure to house the utilities for the pool may be built below the BFE with the following provisions:
- i. Meet the requirements for accessory structures in Section 4-12.6.3.2.h.
  - ii. The utilities must be anchored to prevent flotation and shall be designed to prevent water from entering or accumulating within the components during conditions of the base flood.
- j. **Elevators**
- i. Install a float switch system or another system that provides the same level of safety necessary for all elevators where there is a potential for the elevator cab to descend below the BFE during a flood per FEMA's Technical Bulletin 4-93 Elevator Installation for Buildings Located in Special Flood Hazard Areas.
  - ii. All equipment that may have to be installed below the BFE such as counter weight roller guides, compensation cable and pulleys, and oil buffers for traction elevators and the jack assembly for a hydraulic elevator must be constructed using flood-resistant materials where possible per FEMA's Technical Bulletin 4-93 Elevator Installation for Buildings Located in Special Flood Hazard Areas.
- k. **Fill** - An applicant shall demonstrate that fill is the only alternative to raising the building to meet the residential and non-residential construction requirements of



Section 4-12.6.3.2.a or b and that the amount of fill used will not affect the flood storage capacity or adversely affect adjacent properties. The following provisions shall apply to all fill placed in the special flood hazard area:

- a) Fill may not be placed in the floodway unless it is in accordance with the requirements in Section 4-12.6.3.2.e.i.
- b) Fill may not be placed in wetlands without the required state and federal permits.
- c) Fill must consist of soil and rock materials only. A registered professional geotechnical engineer may use dredged material as fill only upon certification of suitability. Landfills, rubble fills, dumps, and sanitary fills are not permitted in the floodplain.
- d) Fill used to support structures must comply with ASTM Standard D-698, and its suitability to support structures certified by a registered, professional engineer.
- e) Fill slopes shall be no greater than two horizontal to one vertical. Flatter slopes may be required where velocities may result in erosion.
- f) The use of fill shall not increase flooding or cause drainage problems on neighboring properties.
- g) ~~Will~~ **Shall** meet the requirements of FEMA Technical Bulletin 10-01, *Ensuring That Structures Built On Fill In or Near Special Flood Hazard Areas Are Reasonable Safe from Flooding*.

#### **1. Standards for Subdivision Proposals and other development**

- a) All subdivision proposals and other proposed new development shall be consistent with the need to minimize flood damage and are subject to all applicable standards in these regulations.
- b) All subdivision proposals and other proposed new development shall have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize flood damage.
- c) All subdivision proposals and other proposed new development shall have adequate drainage provided to reduce exposure to flood damage.
- d) The applicant shall meet the requirement to submit technical data to FEMA in Section 4-12.6.3.2.g when a hydrologic and hydraulic analysis is completed that generates base flood elevations.

**3. Standards for Streams without Established Base Flood Elevations and Floodways** - Located within the areas of special flood hazard (Zones A and AE) established in Section 4-12.6.1, are small streams where no base flood data has been provided and where no floodways have been identified. The following provisions apply within such areas:

- a. In all areas of special flood hazard where base flood elevation data are not available, the applicant shall provide a hydrologic and hydraulic engineering analysis that generates base flood elevations for all subdivision proposals and other proposed developments containing at least 50 lots or 5 acres, whichever is less.
- b. No encroachments, including fill, new construction, substantial improvements and new development shall be permitted within 100 feet of the stream bank unless certification with supporting technical data by a registered professional engineer is provided demonstrating that such encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge.
- c. If Section 4-12.6.3.3.a is satisfied and base flood elevation data is available from other sources, all new construction and substantial improvements within such areas shall comply with all applicable flood hazard ordinance provisions of Section 4-12.6.3 and shall be elevated or floodproofed in accordance with elevations established in accordance with Section 4-12.6.2.3.k.
- d. Data from preliminary, draft, and final Flood Insurance Studies constitutes best available data. Refer to FEMA Floodplain Management Technical Bulletin 1-98 *Use of Flood Insurance Study (FIS) Data as Available Data*. If an appeal is pending on the study in accordance with 44 CFR Ch. 1, Part 67.5 and 67.6, the data does not have to be used.
- e. When base flood elevation (BFE) data is not available from a federal, state, or other source one of the following methods may be used to determine a BFE For further information regarding the methods for determining BFEs listed below, refer to FEMA's manual *Managing Floodplain Development in Approximate Zone A Areas*:

- i. Contour Interpolation

- (1) Superimpose approximate Zone A boundaries onto a topographic map and estimate a BFE.
- (2) Add one-half of the contour interval of the topographic map that is used to the BFE.

- ii. Data Extrapolation - A BFE can be determined if a site within 500 feet upstream of a reach of a stream reach for which a 100-year profile has been computed by detailed methods, and the floodplain and channel bottom slope characteristics are relatively similar to the downstream reaches. No hydraulic structures shall be present.
- iii. Hydrologic and Hydraulic Calculations- Perform hydrologic and hydraulic calculations to determine BFEs using FEMA approved methods and software.

**4. Standards for Streams with Established Base Flood Elevations but without Floodways -**  
 Along rivers and streams where Base Flood Elevation (BFE) data is provided but no floodway is identified for a Special Flood Hazard Area on the FIRM or in the FIS.

- a. No encroachments including fill, new construction, substantial improvements, or other development shall be permitted unless certification with supporting technical data by a registered professional engineer is provided demonstrating that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one foot at any point within the community.

**5. Standards for Areas of Shallow Flooding (AO Zones)** - Located within the areas of special flood hazard established in Section 1.4, are areas designated as shallow flooding. The following provisions shall apply within such areas:

- a. All new construction and substantial improvements of residential structures shall have the lowest floor elevated to at least as high as the depth number specified on the Flood Insurance Rate Map, in feet, above the highest adjacent grade. If no depth number is specified, the lowest floor shall be elevated at least three (3) feet above the highest adjacent grade.
- b. All new construction and substantial improvements of non-residential structures shall:
  - i. Have the lowest floor elevated to at least as high as the depth number specified on the Flood Insurance Rate Map, in feet, above the highest adjacent grade. If no depth number is specified, the lowest floor shall be elevated at least three (3) feet above the highest adjacent grade; or,
  - ii. Be completely flood-proofed together with attendant utility and sanitary facilities to or above that level so that any space below that level 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. Certification is required as stated in Section 4-12.6.2.2.
- c. All structures on slopes must have drainage paths around them to guide water away from the structures.

**Sec. 4-12.6.4 Warning and Disclaimer of Liability**

The degree of flood protection required by this *Unified Development Ordinance* is based on scientific and engineering considerations. However, larger floods can and will occur on rare occasions. Therefore, this *Unified Development Ordinance* shall not create liability on the part of the participating governments of by any officer or employee for any flood damages that result from reliance on this *Unified Development Ordinance* or any administrative decision lawfully made hereunder.