



City of Boiling Spring Lakes

**9 East Boiling Spring Road
Southport, NC 28461**

STAFF REPORT

Agenda Date:

January 6, 2026

Title:

Public Hearing - Text Amendment (TX-2025-07) UDO Article 7, Section 7-40 – Lot Drainage Plan

Department(s):

Assistant City Manager/Planning & Zoning Dept./Stormwater Dept.

Background Information:

The City has initiated an amendment to regulate stormwater runoff on standalone lots and to establish a minimum finished floor elevation (FFE) for new single-family and two-family residential construction. The proposed amendments are designed to provide a systematic approach to managing stormwater runoff in an effort to promote public safety, safeguard against flood damage, and provide enhanced protection to property owners where new development is constructed in existing neighborhoods.

Currently, the City has an interlocal agreement to regulate stormwater in accordance with the provisions of the Brunswick County Stormwater Ordinance. This agreement is an essential tool for coordinating efforts to reduce flooding and manage stormwater runoff. However, the provisions in the ordinance are only triggered in the following instances:

- Non-residential new development
- Non-residential redevelopment that increases impervious surface
- Development that disturbs greater than 1 acre
- Development that proposes 10,000 square feet or more of impervious surface
- Residential development or related disturbance within 30 feet of the banks of a natural stream or water body
- Residential development where the site will be filled, graded, or excavated thereby changing the elevation of a location by more than four (4) inches

Because single-family and two-family residential construction on standalone lots typically do not meet the thresholds for County enforcement, lot drainage plans would help ensure that each new single-family or two-family home constructed on a standalone lot is designed to properly manage stormwater runoff on-site, even in the absence of County enforcement.

The proposed plan requirement also establishes a minimum finished floor elevation (FFE) of 2 feet higher than highest adjacent grade, or the crown of the roadway (whichever is higher). Requiring the finished floor be elevated mitigates flood risks while still allowing flexibility in construction practices. While a raised finished floor elevation encourages the use of elevated foundations (crawlspaces, stem walls, piers), it does not outright ban the use of slab-on-grade construction. Since slab-on-grade foundations are generally built at or near ground level, the building site would need to be raised to the required elevation through the use of fill. While slab-on-grade foundations would still be possible with the proposed FFE requirement, raised foundations would naturally create the necessary clearance to meet the 2 foot higher FFE requirement without requiring as much fill and grading.

Implementation of lot drainage plans on standalone lots aligns with recommendations in studies conducted in the City by Sungate Design Group, as well as the broader goals outlined in the City's Preliminary Stormwater Master Plan. The lot drainage plans would be reviewed by the City Stormwater Engineer as part of the permitting process to ensure runoff is directed away from foundations and neighboring properties, grading and drainage infrastructure are designed and installed to minimize the impact of construction on the surrounding environment, the development does not contribute to increased flooding risks to infrastructure, such as streets and storm drains, and the finished floor is at the minimum required elevation. Approval of the lot drainage plan would be required prior to issuance of the building permit.

Financial Impact:

Cost to advertise required public hearing.

Recommendation:

None at this time. Public hearing only.

Action Needed:

No action at this time. Public hearing only.

Attachments:

Proposed Text Amendment: Article 7, Section 7-40 - Lot Drainage Plan
Plan Consistency & Reasonableness

Proposal:

Proposed language is identified by underlined text.

Sec. 7-40. – LOT DRAINAGE PLAN

Sec. 7-40-1. – Purpose

The purpose of this section is to ensure that development on individual residential lots does not result in adverse stormwater impacts, such as flooding, erosion, or nuisance drainage, and that proper grading and drainage infrastructure are incorporated into site design. Stormwater runoff shall not be discharged onto adjacent property in a manner that causes flooding or erosion, the alteration of existing drainage patterns shall not obstruct drainage flow, and the finished floor of habitable structures are at the minimum required elevation.

Sec. 7-40-2. – Applicability

A drainage plan shall be required for all new single-family & two-family residential construction on standalone lots, and for projects on residentially zoned lots that introduce more than 400 square feet of new impervious surface.

Sec. 7-40-3. – Plan Submission Requirements

A drainage plan shall be submitted as part of the building permit application. Drainage plans shall be approved by the City Stormwater Department and must include, at a minimum:

(A) Site Information

- a. Lot address and parcel ID number;
- b. Property lines, easements, and setback lines;
- c. Location and footprint of proposed and existing structures;
- d. Location and dimensions of driveways, walkways, patios, and other impervious areas;
- e. North arrow and scale;
- f. Total square footage and percentage of site comprised of impervious surfaces;
- g. Existing and proposed ground elevations, shown via spot elevations or contour lines at 2-foot intervals.
- h. Elevation of the crown of the roadway(s).

(B) Drainage Features

- a. Existing and proposed stormwater flow directions;
- b. Location, dimensions, and invert(s) of proposed drainage infrastructure, including:
 - i. Graded swales;
 - ii. Culverts;
 - iii. Ditches;
 - iv. Inlets, where applicable;
- c. Points of discharge or tie-in to public or natural drainage systems;
- d. Location and spot elevation(s) of any low points or areas of potential water ponding.

(C) Elevation Standards

- a. Finished Floor Elevation (FFE) and proposed grades directly next to the building. The FFE of any habitable structure must be at least 2 feet above the highest adjacent grade directly next to the building. Property subject to this requirement shall be permitted to increase the building height requirement of the district in which they are located by 2 feet. Existing structures shall not be subject to this rule and shall not be considered to be a nonconformity.
 - i. Properties within a Special Flood Hazard Area, as shown on the Flood Insurance Rate Maps (FIRMs) for the City of Boiling Spring Lakes, shall meet the requirements of the City's Flood Damage Prevention Ordinance.

(D) Erosion and Sediment Control

- a. Temporary erosion control measures shall be installed and maintained during construction, including but not limited to:
 - i. Silt fencing: Shall be installed at the perimeter of construction sites, around disturbed slopes and stockpiles, and at all existing and proposed stormwater features to capture sediment before it can leave the site. Installation shall happen before major soil disturbance occurs and shall continue until the site is permanently stabilized. Install silt fence on contour, 18 to 24 inches in height, trenched six (6) inches wide by six (6) inches deep and posts set at six (6) feet on center (4 feet on center without wire backing). Maintain regularly and remove sediment when it reaches one-third the height of the fence.
 - ii. Inlet protection: Provide inlet protection at all new or existing drains using pine bags, gravel bags, block and gravel, or approved inserts with overflow. Maintain regularly and clean when sediment reaches one-third of capacity.
 - iii. Construction entrance stabilization: Construct stabilized entrance a minimum of 20 feet long by 10 feet wide with 6 inches thick of 2 to 3 inch washed stone placed over geotextile fabric. Sweep streets daily or as needed to remove tracked sediment (do not wash into inlets).

At their duly held meeting on December 9, 2025 the Planning Board reviewed and discussed the proposed amendment to Article 7. Motion was made and seconded to change Sec. 7-40-1 and Sec. 7-40-3 of the proposal as follows (original proposal shown in strikethrough, motioned changes shown in red):

Sec. 7-40-1. – Purpose

The purpose of this section is to ensure that development on individual residential lots does not result in adverse stormwater impacts, such as flooding, erosion, or nuisance drainage, and that proper grading and drainage infrastructure are incorporated into site design. Stormwater runoff shall not be increased, or in discharged onto adjacent property in a manner that causes flooding or erosion, the alteration of existing drainage patterns shall not obstruct drainage flow, and the finished floor of habitable structures are at the minimum required elevation.

Sec. 7-40-3. – Plan Submission Requirements

(E) Elevation Standards

- a. Finished Floor Elevation (FFE) and proposed grades directly next to the building. The FFE of any habitable structure must be at least 2-feet 12" above the highest adjacent grade directly next to the building. Property subject to this requirement shall be permitted to increase the building height requirement of the district in which they are located by 2 feet 1 foot. Existing structures shall not be subject to this rule and shall not be considered to be a nonconformity.**
 - i. Properties within a Special Flood Hazard Area, as shown on the Flood Insurance Rate Maps (FIRMs) for the City of Boiling Spring Lakes, shall meet the requirements of the City's Flood Damage Prevention Ordinance.**

Motion to approve proposed amendment with changes carried 3-2.

PLAN CONSISTENCY & REASONABLENESS DETERMINATION

In accordance with NCGS, zoning regulations shall be made in accordance with a comprehensive plan and shall be designed to promote the public health, safety, and general welfare. Prior to adopting or rejecting any zoning amendment, a statement regarding plan consistency shall be adopted.

(A) The Planning Board hereby recommends approval of the proposed amendments to the Unified Development Ordinance and finds that it (i) is consistent with the City's comprehensive plan (2017 Land Use Plan), which states "**the City shall update the Unified Development Ordinance (UDO) to address legislative changes, site plan review standards, subdivision regulations, dimensional standards, and other items deemed necessary by the Planning Board, Board of Commissioners, and City staff**" and shall "reduce flooding and water quality impacts associated with uncontrolled stormwater runoff" and shall "retain the option of adopting additional local stormwater related standards if it is deemed necessary to further protect surface water quality and limit localized flooding"; and (ii) that it is in the public interest because it will advance the public health, safety, and welfare of the City of Boiling Spring Lakes by **mitigating flooding impacts and reducing water quality impacts**.

(B) _____ The Planning Board hereby recommends denial of the proposed amendments to the Unified Development Ordinance and finds that (i) it is not consistent with the City's comprehensive plan (2017 Land Use Plan) and all other applicable plans and policies adopted by the City for the following reasons: _____ and/or (ii) it is not in the public interests for the following reasons: _____

Motion to Recommend Approval (A) Motion to Recommend Denial (B) _____

(For 3 Against 2 Abstained)