MECKLENBURG COUNTY
Land Use and Environmental Services Agency
Permitting & Compliance Department

08/20/2026

505 TOWNE CENTRE BV PINEVILLE, NC

Conceptual Plans for Construction of a +30,000 SF school within the floodplain with associated stormwater management facilities and utilities - FLD-500561/CSP-500131

- **FEMA DFIRM Community # is: 370160 DFIRM Map Panel #: 3710443800K, Effective Date: 09/20/2015**
- **500-yr (0.2% annual chance) Flood Elevation (for Critical Facilities) = 558.0 feet**
- **Base Flood Elevation (Future Conditions) = 554.7 feet**
- **Base Flood Elevation (Existing Conditions)= 554.3 feet (FEMA Flood Insurance)**
- **Flood Protection Elevation (This is the minimum required Elevation of Finished floor and/or Machinery) = 559.0 feet**
- **(Base Flood Elevations determined using Little Sugar Creek Cross Sections No. 184)**

- **In order to get the federal requirement for flood insurance removed from this structure, the building pad must be filled above the FEMA Base Flood Elevation (554.30 feet). An Application for a Letter of Map Revision (LOMR) must be submitted and approved by FEMA. Until FEMA issues their determination, flood insurance will be required by federal Regulation (CFR 44 60.3). This process does not change the Effective Flood Lines. The purpose of this process is to remove the federal requirement to carry flood insurance. A mortgage company with interest in the property may still require it.**

Prior to receiving Building Permit:

- **Floodplain Development Permit Application/Review Fee $2900 (received)**
- **Placement of Fill will require an Endangered Species Assessment (not provided)**
- **Lowest Floor and Mechanical equipment (including electrical outlets/duct work) must be above the Flood Protection Elevation (559.0 feet).**
- **All parking spaces must be elevated above 554.2 feet**
- **Any Crawl Space Floor must be higher than the outside grade.**
- **All materials below the Flood Protection Elevation must be flood resistant. See FEMA's "Technical Guidance Document for Flood Resistant Materials" http://www.fema.gov/media-library-data/20130726-1502-20490-4764/fema_tb_2_rev1.pdf**
- **The ground where the critical structure is located must be above 558.0 feet.**
- **Town of Pineville Ordinance Dryland Access Provisions (Exempt – proposed building and access route are outside of the Community Encroachment Area)**
  - **See Ordinance Section 152.061.F: construction of a new habitable building where both the habitable building and the access route connecting it to a public street are located entirely outside the community encroachment area and where the property does not have any access to a dry public street. Under this exemption, access from the habitable building to the public street must:**
    - **1. Connect to the highest point of the public street adjacent to the property;**
    - **2. Be constructed of gravel, pavement or concrete and be at least 12 feet wide; and**
    - **3. Be constructed entirely at or above the elevation of highest point of the public street adjacent to the property.**
- **Fencing within the floodplain will be required to be 75% open.**
- **When placing tanks in the floodplain, please follow floodplain ordinance requirements shown on following pages.**

- **When construction is complete, please provide:**
  - **FEMA Elevation Certificate.**
  - **As-built survey**
  - **Contractor must schedule Inspection by Storm Water Permitting and Compliance Staff 704-432-7246.**

Chapter 27 FLOODPLAIN REGULATIONS

Section 27.8. Definitions.

Community Base Flood means the flood, determined using future land use conditions, having a one percent chance of being equaled or exceeded in any given year.

Community Base Flood Elevation means the water surface elevation shown on the Flood Insurance Rate Map and in the Flood Insurance Study, having a one percent chance of being equaled or exceeded in any given year, determined using future land use conditions.

Community Encroachment Area means the channel of a stream or other watercourse and the adjacent land areas that must be reserved in order to discharge the FEMA Base Flood without cumulatively increasing the water surface elevation more than 0.1 foot. (see attachments).

Community Encroachment Lines are lateral limits of the Community Encroachment Area, within which, in the direction of the stream or other body of water, no structure or fill may be added, unless specifically permitted by this ordinance. (see attachments).

Community Flood Fringe Area: The land area located between the Community Encroachment Line and the Community Flood Fringe Line as defined herein. (see attachments).

Community Flood Fringe Line is the line that depicts the outer limits of the Community Flood Fringe Area (outer limits of the Community Special Flood Hazard Area).

Community Special Flood Hazard Area is the land subject to a one - percent or greater chance of flooding in any given year from a Community Base Flood. It includes the FEMA Floodway, Community Encroachment Area, FEMA Flood Fringe Area, and the Community Flood Fringe Area.

Dry Public Street means a public street at the intersection of an existing or proposed driveway where the surface of the pavement is at an elevation above the Community Base Flood Elevation.

Dryland Access means a gravel, paved or concrete access route, at least 12’ wide, which is above the Community Base Flood Elevation and connects an Habitable Building to a Dry Public Street.

Elevated Building means a non-basement building built to have the lowest floor elevated above the ground level by, solid foundation perimeter walls, pilings, columns (posts and piers), or shear walls.

Elevated Building means a non-basement building built to have the lowest floor elevated above the ground level by, solid foundation perimeter walls, pilings, columns (posts and piers), or shear walls.

FEMA Base Flood means the flood, determined using land use conditions at the time of the study, having a one percent chance of being equaled or exceeded in any given year.

FEMA Base Flood Elevation (BFE) means the water surface elevation shown on the Flood Insurance Rate Map and in the Flood Insurance Study, having a one percent chance of being equaled or exceeded in any given year, determined using land use conditions present at the time of the study.

FEMA Flood Fringe Area is the land area located between the FEMA Floodway Lines and the line depicting the maximum elevation subject to inundation by the FEMA Base Flood as defined herein (see attachments).

FEMA Flood Fringe Line is the line on a map that depicts the outer limits of the *FEMA Flood Fringe Area (see attachments).*

FEMA Floodway means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the FEMA Base Flood, without cumulatively increasing the water surface elevation more than 0.5 foot. On the Catawba River, the FEMA Floodway means the channel of a stream or other watercourse and the adjacent land areas that must be reserved in order to discharge the FEMA Base Flood, without cumulatively increasing the water surface elevation more than 1.0 feet (see attachments).

FEMA Floodway Lines are the lateral limits of the FEMA Floodway. (see attachments).

Special Flood Hazard Area is the land subject to a one percent or greater chance of flooding in any given year from a FEMA Base Flood. It includes the FEMA Floodway, Community Encroachment Area, and the FEMA Flood Fringe Area. (see attachments)

Flood Insurance Rate Map (FIRM) means an official map of a community, in both digital and printed format, on which the Federal Emergency Management Agency has delineated the Special Flood Hazard Area and the risk premium zones applicable to the community. The date of Charlotte's original FIRM is August 15, 1978 and this date should be used to determine whether a structure is pre-FIRM or post-FIRM.

Floodplain Development Permit means either an Individual Floodplain Development Permit or a General Floodplain Development Permit issued for development in the Floodplain per the requirements of Section 9-62 of this ordinance.

Flood protection elevation or FPE. means the elevation to which all structures located within the community special flood hazard area or FEMA special flood hazard area must be elevated (or floodproofed if non-residential). This elevation is the community base flood elevation plus two feet of freeboard until such time as the Community special flood hazard area is mapped using new future conditions criteria when it shall be the Community base flood elevation plus one foot, except along the Catawba River, including Lake Wylie and Mountain Island Lake where it is the FEMA base flood elevation plus two feet of freeboard.

Flood-resistant Material means any building product [material, component or system] capable of withstanding direct and prolonged contact (minimum 72 hours) with floodwaters without sustaining damage that requires more than low-cost cosmetic repair. Any material that is water-soluble or is not resistant to alkali or acid in water, including normal adhesives for above-grade use, is not flood-resistant. Pressure-treated lumber or naturally decay-resistant lumbers are acceptable flooring materials. Sheet-type flooring coverings that restrict evaporation from below and materials that are impervious, but dimensionally unstable are not acceptable. Materials that absorb or retain water excessively after submergence are not flood-resistant. Please refer to Technical Bulletin 2, Flood Damage-Resistant Materials Requirements, and available from the FEMA. Class 4 and 5 materials, referenced therein, are acceptable flood-resistant materials.

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Freeboard means the height added to the Community Base Flood Elevation (BFE) (or FEMA BFE on the Catawba River) to account for the many unknown factors that could contribute to flood heights greater that the height calculated for a selected size flood and floodway conditions, such as wave action, blockage of bridge openings, and the hydrological effect of urbanization of the watershed.

Habitable Building means a structure designed primarily for, or used for human habitation. This includes, but is not limited to, houses, condominiums, townhomes, restaurants, retail establishments, manufacturing buildings, commercial buildings, office buildings, manufactured homes, and similar uses. It does not include Accessory Structures. (see definition above).

Highest Adjacent Grade means the highest natural elevation of the ground surface, prior to construction, next to the proposed walls of the structure.

Individual Floodplain Development Permit means a permit for Development in the Floodplain that involves activities not listed in Section 9-62(b),1. and may not qualify for a General Floodplain Development Permit.

Letter of Map Revision based on Fill (LOMR-F) means a determination that a structure or parcel of land has been elevated by fill above the BFE and is, therefore, no longer located within the special flood hazard area. In order to qualify for this determination, the fill must have been permitted and placed in accordance with the community's floodplain management regulations.

Lowest Adjacent Grade (LAG) means the elevation of the ground, sidewalk or patio slab immediately next to the building, or deck support, after completion of the building.

Lowest Floor means the lowest floor of the lowest enclosed area (including the basement). An unfinished or flood-resistant enclosure, usable solely for parking of vehicles, building access or storage in an area other than a basement area, is not considered a building's Lowest Floor provided that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of this ordinance.

Non-solid Fence means a fence with at least 75% open area and with vertical supports each no more than 25 square inches in cross sectional area)

Reference Level is the top of the lowest floor, for regulatory purposes, of structures in the FEMA and/or Community Special Flood Hazard Area.

Certification Requirements.

Section. 27.5. Floodplain Development Permit required.
A Floodplain Development Permit shall be required in conformance with the provisions of this ordinance prior to the commencement of any Development activities. The *Floodplain Regulations Technical Guidance Document* may be used for illustrative purposes to assist in determining the applicable type of Floodplain Development Permit required.

Section. 27.5. Floodplain Development Permits and certification requirements.
A Floodplain Development Permit is required for any Development within the Community Special Flood Hazard Area (CSFHA) and is subject to the conditions below. The Floodplain Administrator is authorized to create, and amend from time to time as necessary, a Technical Guidance Document to help explain the application of the provisions of this ordinance, specifically the Floodplain Development Permit provisions, through the use of charts and related written materials. The Floodplain Regulations Technical Guidance Document shall not be a part of this ordinance, and shall be solely for illustrative and educational purposes. If there is any discrepancy between the Floodplain Regulations Technical Guidance Document and this ordinance, the provisions of this ordinance shall control.

A Final As-Built Elevation Certificate *(FEMA Form 086-0-33)* (for either residential or non-residential buildings) or Floodproofing Certificate *(FEMA Form 086-0-34)* with supporting data, an operational plan, and an inspection and maintenance plan is required after construction is completed and prior to the issuance of a Certificate of Occupancy or a Temporary Certificate of Occupancy. It shall be the duty of the permit holder to submit to the Floodplain Administrator a certification of final as-built construction of the elevation or floodproofed elevation of the reference level and all attendant utilities. Said certification shall be prepared by or under the direct supervision of a registered land surveyor or professional engineer and certified by same. When floodproofing is utilized, said certification, operational plan, and inspection and maintenance plan shall be prepared by or under the direct supervision of a professional engineer or architect and certified by same. The Floodplain Administrator shall review the certificate data, operational plan, and inspection and maintenance plan submitted. Deficiencies detected by such review shall be corrected by the permit holder immediately and prior to the issuance of a Certificate of Occupancy or Temporary Certificate of Occupancy. In some instances, another certification may be required to certify corrected as-built construction. Failure to submit the certification or failure to make said corrections required shall be cause to withhold the issuance of a Certificate of Occupancy or Temporary Certificate of Occupancy.

For proposed Development in the Community or FEMA Special Flood Hazard Area but outside of the Community Encroachment Area and the FEMA Floodway, a certification from a registered land surveyor or professional engineer that states that no fill material or other development was placed within the FEMA Floodway or Community Encroachment Area of any watercourse, will be required prior to issuance of a Certificate of Occupancy or Temporary Certificate of Occupancy.

For proposed Development within the Community Encroachment Area or the FEMA Floodway, an as-built topographic map prepared by a registered land surveyor or professional engineer will be required prior to issuance of a Certificate of Occupancy or Temporary Certificate of Occupancy. This is in addition to a Floodway Engineering Analysis or CLOMR that may be required as specified in Section 9-102 (e).

Section. 27.3. General standards.
In all Special Flood Hazard Areas, the following provisions are required:

All New Construction and Substantial Improvements shall be constructed with materials and utility equipment resistant to flood damage;

All new electrical, heating, ventilation, plumbing, air-conditioning equipment 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 flooding to the Flood Protection Elevation. These include but are not limited to HVAC equipment, water softener units, bath/kitchen fixtures, ductwork, electric meter panels/boxes, utility/cable boxes, appliances (i.e., washers, dryers, refrigerator, etc.), hot water heaters, electric wiring, and outlets/switches.

When a structure is partially located in a Community or FEMA Special Flood Hazard Area, the entire structure shall meet the requirements for New Construction and Substantial Improvements.

When a structure is located in multiple flood hazard zones or in a flood hazard risk zone with multiple base flood elevations, the provisions for the more restrictive flood hazard risk zone and the highest base flood elevation shall apply.

Section. 27.4. Specific standards.
In all Community and FEMA Special Flood Hazard Areas where Community and FEMA Base Flood Elevation data have been provided, as set forth in Section 9-37, the following provisions are required:

Residential construction. New Construction or Substantial Improvement of any residential structure shall have the Lowest Floor, elevated to the Flood Protection Elevation. Where an area is impacted by FEMA and/or Community Base Flood Elevations from both the Catawba River and a stream flowing into the Catawba River, the higher of the FEMA and/or Community Base Flood Elevations will apply.

Elevated buildings. New Construction or Substantially Improved structures with fully enclosed areas formed by foundation and other exterior walls below the Community Base Flood Elevation shall meet the following requirements;

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

- Provide a minimum of two (2) openings,
- The total net area of all openings must be at least one (1) square inch for every square foot of enclosed area subject to flooding;
- The bottom of all openings shall be no higher than one (1) foot above adjacent grade at the opening;
- Openings may be equipped with screens, louvers, or other coverings or devices, provided they permit the automatic flow of floodwaters in both directions;
- Openings must be on different sides of the enclosed area if possible; and
- If the building has more than one enclosed area, each must have openings.

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 enter to the living area (stairway or elevator). The interior portion of such enclosed area shall not be partitioned or finished into separate rooms, except to enclose storage areas.

The enclosed area shall be constructed entirely of flood resistant materials at least to the Flood Protection Elevation.

The enclosed area shall not be temperature controlled.

Dryland Access. Access to Habitable Buildings during a flood event is extremely hazardous. Dryland Access must be provided to new or Substantially Improved Habitable Buildings according to the following criteria:

1. Dryland Access is required if any portion of either the Habitable Building or vehicular access route, connecting the Habitable Building to a public street, is within the Floodplain.

2. Plans and details for the Dryland Access must be submitted by a registered professional engineer or surveyor and approved by the Floodplain Administrator.

3. If Dryland Access cannot be obtained, a Variance to the requirement for Dryland Access may be granted by the Board of Adjustment.

FEMA Floodway and Community Encroachment Area. No Encroachments requiring an Individual Floodplain Development Permit (Section 9-62), including fill, New Construction, Substantial Improvements and other Development shall be permitted unless the following conditions are met;
FEMA Floodway

a. A Floodway Engineering Analysis must be provided by a registered professional engineer and performed in accordance with standard engineering practice indicating that the Encroachment would not result in any (0.00') increase in the FEMA Base Flood Elevations during the occurrence of a FEMA Base Flood, and approved by the Floodplain Administrator, or
b. A Conditional Letter Of Map Revision (CLOMR) from FEMA will be required prior to approval for any Encroachment which would cause a rise in the FEMA Base Flood Elevation during the occurrence of the FEMA Base Flood. A Letter Of Map Revision (LOMR) from FEMA must be obtained within six (6) months of completion of the project. Final approval, including Certificates of Occupancy will not be issued until a Letter of Map Revision is issued.
c. Encroachments into the FEMA Floodway must also meet the requirements of 9-102,(e),2 below.

Community Encroachment Area

a. A Floodway Engineering Analysis must be provided by a registered professional engineer and performed in accordance with standard engineering practice indicating that the Encroachment would not result in increased flood heights of greater than 0.10' during the occurrence of a Community Base Flood.
b. A Community Conditional Letter Of Map Revision (CoCLOMR) from the Floodplain Administrator is required for any change which would cause a rise of more than 0.10' in the Community Base Flood Elevation. Impacted property owners must be notified prior to approval of a CoCLOMR. If approved and constructed, as-built plans must be submitted and approved by the Floodplain Administrator and a Community Letter of Map Revision (CoLOMR) issued within six (6) months of completion of the project. Final approval, including Certificates of Occupancy will not be issued until a Community Letter of Map Revision has been issued.
c. Projects impacting existing Habitable Buildings that increase the Community Base Flood Elevation

more than 0.00' will not be allowed without a Variance.

Above-ground tanks, not elevated. Above-ground tanks that do not meet the elevation requirements of Section 9-102 (b) of this ordinance shall be permitted in flood hazard areas provided the tanks are designed, constructed, installed, and anchored to resist all flood-related and other loads, including the effects of buoyancy, during conditions of the Community and/or FEMA Base Flood and without release of contents in the floodwaters or infiltration by floodwaters into the tanks. Tanks shall be designed, constructed, installed, and anchored to resist the potential buoyant and other flood forces acting on an empty tank during design flood conditions;

Tank inlets and vents. Tank inlets, fill openings, outlets and vents shall be:

a. At or above the Flood Protection Elevation or fitted with covers designed to prevent the inflow of floodwater or outflow of the contents of the tanks during conditions of the Community and/or FEMA Base Flood; and

b. Anchored to prevent lateral movement resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy, during conditions of the Community and/or FEMA Base Flood.

Fill. Proposed placement of fill within the Special Flood Hazard Area requires demonstration of compliance with Section 9 and 10 of the Federal Endangered Species Act (ESA). The demonstration of compliance must be provided to the Flood Administrator.

The city of Charlotte's Flood Ordinance in its entirety can be found at

cltudo (charlotteudo.org)