UNIFIED DEVELOPMENT ORDINANCE

CHAPTER 6. ENVIRONMENTAL PROTECTION

6.6. Stormwater runoff provisions.

A. ***Purpose.*** The purpose this section is to:

1. ~~(1)~~ protect life and property and minimize nuisances by limiting destructive runoff and flooding generated by impervious surface areas;
2. ~~(2) to~~ protect water quality and natural ecosystems by filtering sediments and pollutants such as nitrogen, phosphorus, trace metals, and hydrocarbons; and

~~1.~~3. ~~(3)~~ limit additional impervious surface areas to the greatest extent possible.

B. ***Applicability.***

~~2.~~1. *Minimum development thresholds:* This section shall apply to all new development and redevelopment projects, including but not limited to site plans, subdivision applications, and demolition activities, that does any of the following: ~~*Affected property:* The requirements of this section shall apply to the following activities:~~

a. Cumulatively disturb one acre of land or more; ~~Any new non-residential or mixed-use development that disturbs more than one acre of land, or will have an impervious surface area more than 50 percent of the total acreage of the site.~~

b. Cumulatively add 20,000 square feet or more of built-upon area; ~~Any new residential development or subdivision of eight or more dwelling units.~~

c. Are subject to the steep slope area requirements in Section 6.4; or

~~c.~~d. Are required to comply with the provisions of this section as a condition of approval by the Board of Adjustment or City Council. ~~Any project for which stormwater management is required as a condition of approval by the planning board, board of adjustment, or city council.~~

~~3. In the event of redevelopment that results in increased impervious area, only the new impervious areas are subject to the standards in subsection 6.6.C.~~

~~4.~~2. *Exemptions:* ~~*activities:*~~ The following activities are exempt from ~~the stormwater management~~ provisions of this section:

a. Projects that do not meet the minimum development thresholds above; and

~~a.~~b. ~~Existing b~~Bona fide agricultural structures used exclusively for agricultural purposes.

~~b. Development or redevelopment of a single one or two family dwelling unit that disturbs less than one acre and will have an impervious surface area less than 20,000 square feet.~~

~~c. Redevelopment that results in no net increase of impervious surface area on a property.~~

~~d. Development or redevelopment of parcels located within the Heart of Brevard Municipal Service District.~~

~~e. Small accessory buildings or structures, or additions less than 400 square feet.~~

~~f. Residential infill development as defined in CHAPTER 19 of this ordinance.~~

3. *Changes to stormwater measures:* Any alterations to stormwater measures shall be made in accordance with this section.

C. *General design standards.*

1. All development subject to this section shall take the following actions to the maximum extent practicable:
   a. Minimize built-upon area by clustering buildings, reducing road widths and parking areas, and using permeable materials for walkways, patios, and overflow parking;
   b. Release stormwater runoff as sheet flow through vegetated areas;
   c. Prevent stormwater runoff from discharging onto adjacent properties; and
   d. Maintain pre-development drainage patterns and preserve natural drainageways and swales.
2. All development shall prevent erosion and sedimentation during and after construction (see also Section 6.7).
3. The administrator may require evidence from the applicant to demonstrate compliance with these standards.

~~B.~~**D. *Requirements for stormwater treatment*.** ~~*Stormwater management requirements:* The following requirements shall apply to all impervious surface areas of affected properties.~~

1. The runoff from all built-upon areas on the project shall be treated in a primary stormwater control measures (SCM) that is designed, constructed and maintained in accordance with the relevant North Carolina Minimum Design Criteria (MDC) set forth in 15A NCAC 02H .1050 through .1062 (see *NCDEQ Stormwater Design Manual*).

~~1.~~2. Stormwater measures shall be designed by a certified design professional in the State of North Carolina, and shall be constructed and maintained in accordance with commonly accepted best practices.

~~2.~~3. Minimum ~~D~~design standards:

~~a. Runoff volume shall be calculated with the use of the Soil Conservation System (SCS) method.~~

~~b.~~a. SCMs shall be designed to provide treatment for the runoff from the one-inch storm event. ~~At a minimum, stormwater measure shall be designed to remove 85 percent of the Total Suspended Solids (TSS) from the first inch of any rain event.~~

~~c.~~b. The stormwater run-off generated by a two-year and ten-year, 24-hour rain event, shall be ~~limited~~ at a rate equal to or less than ~~to~~ the pre-development discharge rates.

~~d.~~c. Stormwater measure shall have a drawdown of 48 hours, but not more than 120 hours.

4. *Low-impact development credit.*
   a. Projects are encouraged to utilize low-impact development (LID) techniques to control stormwater runoff in a way that uses or mimics natural process in order to reduce the necessary structured treatments. ~~Small scale Stormwater management practices, non-structural techniques, low-impact designs (LID), and site planning designed to mimic natural hydrologic runoff characteristics and minimize the impact of land development on water resources must be implemented. Only when it is absolutely necessary is the use of a structural BMP warranted.~~
   b. Minimum design standards for LID stormwater management measures shall be to control stormwater runoff for a five-year, 24 hour rain event.

~~e. Structural treatment devices used as an alternative to, or in conjunction with LID techniques are acceptable only when practically necessary.~~

5. *Off-site SCMs:* Stormwater measures may be located off-site provided that:

   a. Ssuch measures are located within a parcel of land under the same ownership as the affected property or within a common area under the management of a property owners' association or similar entity; and

   f.b. ~~. When stormwater measures are located off-site, d~~Deeds of both the affected property and the property containing the stormwater measure shall be provided and shall clearly reference an access easement and the right and responsibility of the owner of the affected property to access and maintain such measure.

~~3. In all instances stormwater measures shall be designed to complement a development and surrounding community and to minimize any threat to public health. If ponds or lakes are used, such areas shall be landscaped as amenities or hidden from view. This provision applies regardless whether the pond or lake typically contains water or may be dry for periods of time.~~

E. *Stormwater management plan.*

~~4. *Permit requirements:* The administrator shall review all stormwater plans required by this ordinance to ensure compliance therewith. In making this determination, the administrator shall use the *Stormwater Best Management Practices Design Manual* published by the North Carolina Department of Environmental Quality or other commonly accepted information and engineering data.~~

1. *Timing of stormwater management plan submittal*: The applicant shall submit a stormwater management plan with the full set of site construction documents, in accordance with Chapter 17, to be reviewed and approved by the administrator to ensure compliance with this section.

2. *Required items*: The stormwater management plan shall include the following items in sufficient detail to facilitate plan review and construction:

   a. A narrative description of the proposed site improvements, the stormwater treatment system, and any low impact design elements.

   b. The existing and proposed site contours and drainage patterns.

   c. Engineering drawings showing plan, profile, and details of the existing and proposed drainage system, including, but not limited to, piping, drainage structures, swales, and channels tying into a network of pre-existing manmade or natural channels.

   d. Site layout showing all existing and proposed stormwater control measures and built-upon areas, except for built-upon areas associated with single family residential lots and outparcels on commercial developments that are undetermined at the time of project submittal.

   e. Subdivision lot lines, maintenance access routes and easements, utility and drainage easements, public rights of way, and SCMs.

   f. Signed, sealed, and dated plan details of each SCM in plan view at a scale such that all details are legible on a copy. The plan details shall include dimensions, side slopes, and elevations, inlet and outlet devices, bypass structures, pretreatment area,

   g. Signed, sealed, and dated planting plans for each SCM that requires a planting plan per the Minimum Design Criteria. The planting plan shall include plant layout with species names and locations and total number and sizes of all plant species.

   h. Proposed drainage easements shown on the plans, and a signed agreement to provide final recorded drainage easements if recorded documents are not available at the time of submittal.

i. Calculations and engineering specifications relevant to the design of the stormwater conveyance and treatment system.

j. Location of floodplain/floodway limits and proposed stream channel modifications, such as bridge or culvert crossings.

k. Relationship of the site to upstream and downstream properties and drainages.

~~a. Stormwater management system concept plan. When required as part of any project, a written or graphic concept plan of the proposed post-development stormwater management system shall be submitted along with other application materials and shall include the following: preliminary selection and location of proposed structural stormwater controls; low impact design elements; location of existing and proposed conveyance systems such as grass channels, swales, and storm drains; flow paths; location of floodplain/floodway limits; relationship of site to upstream and downstream properties and drainages; and preliminary location of proposed stream channel modifications, such as bridge or culvert crossings.~~

3. If, following commencement of land disturbing activity pursuant to an approved plan it is determined that the plan is inadequate to meet the requirements of this ordinance, the administrator may require any revision of the plan that is necessary to comply with this ordinance.

F. *As-built plans and final approval.*

1. *Timing of as-built plan submittal*: ~~As-built plans and final approval.~~ Upon completion of a project, and before final zoning approval or a certificate of occupancy may be granted, the applicant shall certify that the completed project has been built in accordance with the approved stormwater management plans and designs. A final inspection and approval by the administrator are necessary prior to the issuance of any certificate of occupancy, release of improvement guarantee, or other final approval.

~~5.~~2. *Required items:* The ~~applicant shall submit actual~~ "as built" plans for all stormwater management facilities ~~or practices after final construction is completed.~~shall include the following items:

a. The ~~plans shall show the~~ final design specifications for all stormwater management facilities and practices and the field location, size, depth, and planted vegetation of all measures, controls, and devices, as installed.

~~a.~~b. A signed and sealed designer's certification ~~The designer of the stormwater management measures and plans shall certify, under seal,~~ that the as-built stormwater measures, controls, and devices are in compliance with the approved stormwater management plans and designs and with the requirements of this ordinance.

~~6. A final inspection and approval by the administrator is necessary prior to the issuance of any certificate of occupancy, release of performance guarantee, or other final approval.~~

~~**C.** *Inspection of measures:* The Administrator may, from time to time, inspect approved stormwater measures for compliance with this section and approved plans. Inspections may include, but are not limited to, reviewing maintenance and repair records; sampling discharges, surface water, groundwater, and material or water in stormwater measures; and evaluating the condition of stormwater measures. No person shall obstruct, hamper or interfere with the Administrator while carrying out his or her official duties. If the owner or occupant of any affected property refuses to allow such inspection, the Administrator shall proceed to obtain an administrative search warrant pursuant to G.S. 15-27.2 or its successor.~~

~~**D.**~~**G. *Maintenance of stormwater measures~~:~~.***

1. *General standards for maintenance:*

a. The owner of any stormwater measure installed pursuant to this section shall maintain and operate ~~such measure~~ it so as to preserve and continue its function in controlling stormwater quality and quantity at the degree or amount of function for which the stormwater measures were ~~was~~ designed.

b. Furthermore, stormwater measures installed prior to the enactment of this ordinance as a requirement of the issuance of any permit shall be subject to the maintenance requirements herein.

c. The owner of each stormwater measure, whether structural or non-structural in design, shall maintain it so as not to create or permit a nuisance condition.

2. *Inspection reports:*

a. The administrator shall have the right to demand an inspection report at any time should there be:

i. a reasonable belief that any stormwater structure or feature is constructed or being maintained in violation of this ordinance; or

ii. proposed redevelopment activity on the site.

b. Such inspection report shall be prepared by a registered North Carolina professional engineer, surveyor, or landscape architect performing services only in their area of competence.

c. The report shall contain the following:

i. The name and address of the landowner.

ii. The recorded Plat book and page number of a lot of each stormwater control.

iii. A statement that an inspection was made of all stormwater controls and features.

iv. The date the inspection was made.

v. A statement regarding the performance status and compliance of all inspected controls and features with the terms and conditions of the approved maintenance agreement required by this ordinance.

vi. The signature and seal of the engineer, surveyor, or landscape architect.

d. Should the stormwater inspection reveal substantial maintenance or repair recommendations, it shall be the owner's responsibility to retain certified design professional to develop plans and specifications for such repairs within 30 days from finding that substantial maintenance or repair recommendations are necessary. Maintenance or repair work must commence within 60 days and be completed within a reasonable amount of time, from finding that substantial maintenance or repair recommendations are necessary.

~~c.~~e. Nothing in this section negates any requirements for the inspection of stormwater measures as set forth by any state or federal agency.

H. *Operations and maintenance agreement.*

1. *Requirement to have an agreement:* The applicant or owner of a site that is required to have a SCM pursuant to this section must execute an operation and maintenance agreement prior to final zoning approval or issuance of a certificate of occupancy for development or redevelopment. The responsibility for complying with the operation and maintenance agreement rests on the property owner.

2. *Content of agreement.* The operation and maintenance agreement shall include the following:

a. A requirement for the property owner to maintain, repair, and, if necessary, reconstruct the SCM, and shall state the terms, conditions, and a schedule of maintenance of at least once every two years for the SCM.

b. A statement granting the city a right of entry in the event the stormwater administrator has reason to believe it has become necessary to inspect, monitor, maintain, repair, or reconstruct the SCM. In no case, however, shall the right of entry confer an obligation on the city to assume responsibility for the SCM.

c. Language to bind the parties thereto and all subsequent owners, successors and assigns, of the site, portions of the site, and lots or parcels served by the SCM.

3. *Recordation*: The operation and maintenance agreement shall be referenced on the final plat; and if there is no final plat, then the agreement shall be referenced on an as-built record drawing and also recorded in the Transylvania County Register of Deeds, so as to appear in the chain of title of all subsequent purchasers under generally accepted searching principles. A copy of the recorded maintenance agreement shall be given to the administrator prior to final zoning approval.

~~**E.** *Reserved.*~~

~~**F.** *Illicit discharges:* Except as provided herein, no person shall cause or allow the discharge, emission, disposal, pouring, or pumping, whether directly or indirectly, of any liquid, solid, gas, or other substance, other than stormwater, into any surface water, ground water, or stormwater conveyance. This prohibition applies to any substance deposited upon the land in manner and amount that the substance is likely to reach a stormwater conveyance, surface or ground water.~~

~~1. The following discharges shall not be deemed illicit and shall be permitted under the terms stated:~~

~~a. Water line flushing, except any anti-freezing agent;~~

~~b. Landscape irrigation;~~

~~c. Diverted stream flows;~~

~~d. Rising ground waters;~~

~~e. Uncontaminated ground water infiltration (as defined at 40 CFR 35.2005(20));~~

~~f. Uncontaminated pumped ground water;~~

~~g. Discharges from potable water sources;~~

~~h. Foundation drains;~~

~~i. Air conditioning condensation;~~

~~j. Irrigation water;~~

~~k. Springs;~~

~~l. Water from crawl space pumps;~~

~~m. Footing drains;~~

~~n. Lawn watering;~~

~~o. Individual residential car washing;~~

~~p. Flows from riparian habitats and wetlands;~~

~~q. Dechlorinated swimming pool discharges;~~

~~r. Street wash water; and~~

~~s. Other non-stormwater discharges for which a valid NPDES discharge permit has been approved and issued by the State of North Carolina.~~

~~2. Prohibited discharges include but are not limited to the following:~~

a. Discharges of oil, anti-freeze, chemicals, paints, garbage, litter;

b. Raw sewage discharges or overflows;

c. Discharges of wash water resulting from the hosing or cleaning of gasoline stations, auto repair garages, or other types of automotive service facilities;

d. Discharges resulting from the cleaning, repair, or maintenance of any type of equipment, machinery, or facility (including motor vehicles, cement-related construction equipment, port-a-potty servicing, etc.);

e. Discharges of wash water from mobile operations such as steam cleaning, power washing, pressure washing, carpet cleaning, and mobile carwash facilities; discharges of wash water from the cleaning or hosing of impervious surfaces in industrial and commercial areas including parking lots, streets, sidewalks, driveways, patios, plazas, work yards, and outdoor eating or drinking areas;

f. Discharges of runoff from material storage areas containing chemicals, fuels, grease, oil or hazardous materials or chemicals;

g. Discharges of pool or fountain water containing chlorine, biocides or other chemicals, and also discharges of pool or fountain filter backwash water;

h. Discharges of water containing sediment or construction-related wastes; and

i. Discharges of food-related wastes such as grease, oil, fish processing water, kitchen mat wash water, trash bin wash water, pouring liquids into dumpsters.

G. *Illicit connections:* Other than those exceptions listed in Section 6.6.H.1, above, it shall be unlawful to cause or permit any connection to a surface water or stormwater conveyance or stormwater conveyance system that allows the discharge of anything other than stormwater.

1. Prohibited connections include, but are not limited to the following: floor drains, wastewater from washing machines or sanitary sewers, wash water from commercial vehicle washing or steam cleaning, and wastewater from septic systems.

2. Where such connections exist in violation of this section and said connections were made prior to the adoption of this provision or any other ordinance prohibiting such connections, the property owner or the person using said connection shall remove the connection within one year following the effective date of this ordinance. Provided, however, the one-year grace period shall not apply to connections which may result in the discharge of hazardous materials or other discharges which pose an immediate threat to health and safety, or are likely to result in immediate injury and harm to real or personal property, natural resources, wildlife, or habitat.

3. Upon determining that an illicit connection may result in the discharge of hazardous materials or may pose an immediate threat to health and safety, or is likely to result in immediate injury and harm to real or personal property, natural resources, wildlife, or habitat or that a connection was made in violation of any applicable regulation or ordinance, other than this section the administrator shall designate the time limit within which the connection shall be removed. In setting the time limit for compliance, the administrator shall take these matters into consideration:

a. The quantity and complexity of the work;

b. The consequences of delay;

c. The potential harm to the environment, to the public health, and to public and private property; and

d. The cost of remedying the damage.

I. ~~*Fee-in-lieu of stormwater compliance:*~~***Stormwater fee-in-lieu.*** ~~On-site compliance with the requirements of this section may be impractical or impossible on certain parcels within the city. The owner and/or developer of affected properties may pursuant to the provisions set forth herein, opt to pay a fee-in-lieu of compliance with the stormwater management requirements of this section.~~

1. *When the administrator may allow a fee-in-lieu*: If existing site conditions make compliance with the requirements of this section impractical or impossible, the administrator, in consultation with the Technical Review Committee, may, at its discretion, allow the applicant to pay a fee-in-lieu of compliance.
   a. The administrative may determine that additional review is required and request review and/or a recommendation by the Board of Adjustment prior to allowing this alternative.
2. *How the fee may be implemented*: Prior to the approval of a fee-in-lieu, the development shall come into compliance to the greatest extent possible. This may include, but is not limited to, the following:
   a. Construction of a smaller SCM and a fee-in-lieu for the difference between the cost of the smaller SCM compared to the larger SCM;
   b. Changes to the site design to reduce stormwater volume; and/or
   c. The provision of low-impact development stormwater management treatments.

~~4.~~3. *Basis for determining the fee-in-lieu*: Fees shall be based upon the actual cost of construction of a structural stormwater measure to control and treat stormwater runoff from the total impervious surface area of the affected property.

~~5.~~4. Payment may be made in the form of contribution of funds, contribution of land, contribution of engineered stormwater control construction work, or a combination of these.

~~6.~~5. Fee-in-lieu contributions shall be set aside in a dedicated fund~~,~~ and applied to stormwater management and other water quality improvement projects.

~~Purposes eligible for fee-in-lieu contributions include the following:~~

~~a. The acquisition, design, or construction of stormwater control and treatment measures.~~

~~b. Stream bank, wetland, or other surface water protection and restoration projects that enhance stormwater management goals, reduce erosion, and enhance water quality.~~

~~c. The elimination of illicit or inappropriate connections to stormwater conveyances.~~

~~d. Other activities identified by the city manager, provided that such activities are for the sole purpose of improving water quality.~~

~~e. Matching funds for grants to fund any of the aforementioned types of activities.~~

~~f. Matching funds for participation in any water quality improvement program funded by the Transylvania County Soil and Water Conservation Service, the North Carolina Department of Environmental Quality, the USDA Natural Resources Conservation Service, or other local, regional, state or federal agencies.~~

~~7. The expenditure of stormwater contributions is limited as follows:~~

~~a. To the extent practical, contributions shall be applied to activities that will result in water quality benefits comparable to the benefits of controlling and treating stormwater on the contributing property.~~

b. ~~Contributions shall not be applied to the stormwater management requirements of other affected properties, or to the same affected property to satisfy the stormwater management requirements of future site plan approvals.~~

c. ~~Contributions shall not be applied to any other purpose or activity of the city not directly related to stormwater management and water quality improvement.~~

CHAPTER 17. DEVELOPMENT PLAN REQUIREMENTS

17.5. Master plan requirements.

When required, the master plan shall be drawn to the following specifications and must contain or be accompanied by the information listed below. This section defines both preliminary and final master plans. A preliminary master plan may only be submitted as part of an application for a conditional zoning district. All plans shall be submitted at a scale not less than one inch = 50 feet unless otherwise authorized by the administrator.

A. Processing or review of a preliminary or final master plan may not proceed without all of the following information:

1. The boundary, as determined by survey, of the area to be developed with all bearings and distances shown and the location within the area, or contiguous to it, of any existing streets, railroad lines, perennial streams, wetlands, easements or other significant features of the tract.
2. Scale denoted both graphically and numerically with north arrow.
3. A vicinity map at a scale no smaller than one inch equals 1,200 feet showing the location of the development with respect to adjacent streets and properties.
4. The proposed name of the development, street names, the owner's name and address, the names of adjoining property owners, the name of the city, county, and state in which the development is located, the date of plan preparation, and the zoning classification of the tract to be developed, and of adjoining properties.
5. Corporate limits and extraterritorial jurisdiction boundaries (where applicable).
6. A timetable for estimated project completion for each phase proposed.
7. Original contours at intervals of not greater than five feet for the entire area to be subdivided or developed and extending into adjoining property for a distance of 300 feet at all points where street rights-of-way connect to the adjoining property and 50 feet at all other points of common project boundaries. Transylvania County or City of Brevard digital topography may be used to satisfy this requirement but should be field-verified to ensure accuracy. This requirement may be waived for developments smaller than one acre or where insufficient topographic changes warrant such information.
8. The location of any building restriction areas (i.e. flood hazard areas, buffer locations, watershed protection districts, and/or jurisdictional wetlands), where applicable.
9. Site calculations shall include total acreage of tract, acreage in parks and other non-residential uses, total number and acreage of parcels, and the total number of housing units.
10. The following statement shall be placed upon all master plan documents, as applicable:

"Areas delineated upon this plan as a protection area or Special Flood Hazard Areas is subject to limitations upon development as set forth CHAPTER 34 of Brevard City Code, and any development, disturbance, or encroachment is prohibited except in accordance therewith."

B. Requirements for preliminary master plans. A preliminary master plan may only be submitted as part of an application for a conditional zoning district. A preliminary master plan may be more conceptual in nature than a final master plan, and shall be sufficient to demonstrate deviations from the base zoning district and the scope of the project.

1. At a minimum, a preliminary master plan shall show the conditions both requested and offered that deviate from the base zoning district.
2. A preliminary master plan may divide the district into land use areas and specify proposed uses and other development standards which shall apply to such land use area. The preliminary master plan may also depict transition zones between any such land use areas which shall permit deferring the determination of the precise boundaries between land use areas until final master plan review.
3. Additional submittal requirements for the preliminary master plan shall be determined by the administrator in the pre-application meeting or during review. The approving authority may require additional submittals as deemed necessary due to the particulars of the project. A preliminary master plan may include the following information, as applicable:
    a. The location of proposed buildings, parking and loading areas, streets, alleys, easements, lots, parks or other open spaces, site reservations (i.e. school sites), property lines and building setback lines with street dimensions, and tentative lot dimensions.
    b. The traffic and circulation system demonstrating a safe and adequate on-site transportation system that addresses vehicular, bicycle, transit and pedestrian circulation. The on-site transportation system shall be integrated with the off-site transportation circulation system of the city.
    c. The proposed limits of construction for all proposed development activity, including all required protected areas and open space.
    d. Landscaping plan and/or vegetation preservation plan in accordance with Section 17.9.
    e. Lighting plan in accordance with Section 17.10.
    f. Architectural plans in accordance with Section 17.11.
    g. Traffic impact analysis (if required) in accordance with Section 17.12.
    h. Stormwater management ~~concept~~ plan in accordance with Section ~~17.13~~6.6.
    i. Conceptual utilities plan. Conceptual plans for utilities to serve the development, including sanitary sewers, storm sewers and water lines.
    j. Environmental impact statement, pursuant to Article 113A of the North Carolina General Statutes, if: the development exceeds two acres in area, and; if the BPB deems it necessary due to the nature of the land or peculiarities in the proposed design.
    k. Development permit and certification application with supporting documentation as required by the flood hazard prevention requirements of CHAPTER 6 of this ordinance.

C. Requirements for final master plans.

1. A final master plan shall include all of the following information, as applicable:
    a. The location of proposed buildings, parking and loading areas, streets, alleys, easements, lots, parks or other open spaces, site reservations (i.e. school sites), property lines and building setback lines with street dimensions, and tentative lot dimensions.

b. The transportation and circulation system showing typical cross-sections of proposed streets. Where a proposed street is an extension of an existing street, the profile of the street shall include 300 feet of the existing roadway, with a cross section of the existing street. Where a proposed street within the development abuts a tract of land that adjoins the development and where said street may be expected to extend into said adjoining tract of land, the profile shall be extended to include 300 feet of the said adjoining tract.

c. The proposed limits of construction for all proposed development activity, including all required protected areas and open space.

2. Additional submittal requirements for the final master plan shall be determined by the administrator in the pre-application meeting or during review. The approving authority may require additional submittals as deemed necessary due to the particulars of the project. A final master plan may include the following information and supplemental plans, as applicable.

a. Landscaping plan and/or vegetation preservation plan in accordance with Section 17.9.

b. Lighting plan in accordance with Section 17.10.

c. Architectural plans in accordance with Section 17.11.

d. Traffic impact analysis (if required) in accordance with Section 17.12.

e. Stormwater management ~~concept~~ plan in accordance with Section ~~17.13~~6.6.

f. Conceptual utilities plan. Conceptual plans for utilities to serve the development, including sanitary sewers, storm sewers and water lines.

g. Environmental impact statement, pursuant to Article 113A of the North Carolina General Statutes, if: the development exceeds two acres in area, and; if the BPB deems it necessary due to the nature of the land or peculiarities in the proposed design.

h. Development permit and certification application with supporting documentation as required by the flood hazard prevention requirements of CHAPTER 6 of this ordinance.

17.6. Construction document requirements.

The construction documents for site plans, conditional rezoning plans, special use plans, major subdivisions, vested rights, and master plans shall be submitted in accordance with the specifications of this section except where specifically noted. Construction documents shall constitute the complete submittal requirements for site plans and preliminary plats required prior to construction.

The size and number of completed application submittal copies required shall be set by the administrator. No certifications other than the certificate of survey and accuracy as in Section 17.7.J and the seal of the professional designer must be provided in connection with the submission.

Construction drawings must be drawn to the following specifications and must contain or be accompanied by the applicable information listed below. All plans shall be submitted at a scale not less than one inch = 50 feet unless otherwise authorized by the administrator. No processing or review of construction documents will proceed without all of the following information:

A. The boundary, as determined by survey, of the area to be subdivided with all bearings and distances shown and the location within the area, or contiguous to it, of any existing streets, railroad lines, water courses, easements, bridges, floodplains, or other significant features of the tract.

B. Scale in feet denoted both graphically and numerically with north arrow and declination.

C. A sketch vicinity map at a scale no smaller than one inch equals 1,200 feet showing the relationship between the proposed subdivision and surrounding area.

D. Environmental survey in accordance with Section 17.3.

E. Existing topography and finish grading with contours drawn at two foot intervals. This requirement may be waived for developments smaller than one acre or where insufficient topographic changes warrant such information.

F. Corporate limits and extraterritorial jurisdiction boundaries (where applicable).

G. The proposed names of the development and streets, the owner's name and address, signature of the owner or owner's duly authorized agent, the surveyor's name, the names of existing and proposed adjoining subdivisions or property owners, the names of the city, county, and state in which the development is located, the date of preparation, and the zoning classification of the tract to be developed and of adjoining properties.

H. Proposed lot lines, lot and block numbers, and exact dimensions.

I. The future ownership (dedication or reservation for public use to a governmental body; for owners to duly constituted home owners' associated, for tenant's remaining in subdivider's ownership of recreation and open space lands).

J. A statement from the City of Brevard regarding the availability of adequate water and sewer capacity for the proposed development.

K. The plans for utility layouts, including sanitary sewers, storm sewers, and water lines, illustrating connections to existing systems. All systems shall conform to current city standards.

L. The location and size of all utility lines, easements, and rights-of-way. Easements shall be provided on all construction documents as follows:

1. *Utility easements:* Easements for underground or above ground utilities shall be provided for and centered along rear or side lot lines, and shall be a minimum of ten feet in width. Easements for water lines, sanitary sewers, and storm drains shall be centered on the pipe and a minimum of 20 feet in width or as required by design manual.
2. *Drainage easements:* Where a development is crossed by a stream or drainage way, an easement shall be provided conforming with the lines of such stream and of sufficient width as shall be adequate to maintain the overall integrity of the drainage area and provide for its periodic maintenance.
3. *Landscape easements:* Landscape easements along streets should be designed in accordance with the provisions of CHAPTER 6 and CHAPTER 8. The city may require landscape easements for developments where industrial or commercial uses abut residential uses.
4. *Public access easements:* Public access easements shall be provided for sidewalks, trails, greenways, and other pedestrian and bicycle facilities that provide connections other than within public rights-of-way.

M. The location of proposed buildings, parking and loading areas, streets, alleys, lots, parks or other open spaces, reservations (i.e. school sites), property lines and building setback lines with street dimensions, tentative lot dimensions, and the location of any building restriction areas (i.e. flood hazard areas, watershed protection districts, and/or jurisdictional wetlands. Buildings shown for the purpose of measuring setbacks must reflect these elements when applicable.

N. Site calculations shall include total acreage of tract, acreage in parks and other non-residential uses, total number and acreage of parcels, the total number of housing units, area of all mixed-use and non-residential buildings, gross project density per acre, linear feet of streets, and the accurate locations and descriptions of all monuments, markers, and control points.

O. The location and dimensions of all off-street parking and loading spaces, and walkways indicating the type of surfacing, size, angle of stalls, width of aisles, and a specific.

P. Development permit and certification application with supporting documentation as required by the flood hazard prevention requirements of CHAPTER 34 of Brevard City Code.

Q. The location and dimensions of any sidewalks, curb cuts, curb and gutters to be installed along public street frontages, and other required street improvements designated in CHAPTER 11 of this ordinance, or as called for in the Brevard Transportation Plan, the Rural Planning Organization Thoroughfare Plan or Transportation Improvement Program, or other plan or policy of the city. Required right-of-way shall be drawn in the location shown on any official plan at the width specified in this ordinance.

R. Typical cross sections of proposed streets showing rights-of-way, pavement widths, grades, and design engineering data for all corners and curves. Where a proposed street is an extension of an existing street the profile of the street shall include 300 feet of the existing roadway, with a cross section of the existing street. Where a proposed street within the subdivision abuts a tract of land that adjoins the subdivision and where said street may be expected to extend into said adjoining tract of land, the profile shall be extended to include 300 feet of the said adjoining tract.

S. The location of any existing or proposed demolition landfills in the site. Such sites shall not be used for building.

T. A copy of the full soil erosion and sedimentation permit application including forms, plans, and calculations to be submitted to the North Carolina Department of Environmental Quality-Erosion and Sediment Control Office, and a copy of the approval letter prior to site plan or preliminary plat approval.

U. Final proposed elevations of all non-single family and duplex buildings proposed for construction as part of this site plan approval. Subsequent buildings within the development may be handled as separate site plans. Such elevations shall include all facades visible from public streets.

V. Supplemental plans as applicable:

1. Landscape plan in accordance with Section 17.9.
2. Tree preservation plan in accordance with Section 17.9.
3. Lighting plan in accordance with Section 17.10.
4. Architectural plans in accordance with Section 17.11.
5. Traffic impact analysis (if required) in accordance with Section 17.12.
6. Floodplain development information (if required) in accordance with ~~Section 17.13.~~Chapter 34 of the Brevard City Code or Ordinances.
7. Stormwater management ~~concept~~ plan in accordance with Section ~~17.13~~6.6.

W. The following statement shall be placed upon all final construction documents, as applicable:

"Areas delineated upon this plat or plan as a protection area or Special Flood Hazard Areas is subject to limitations upon development as set forth CHAPTER 34 of Brevard City Code, and any development, disturbance, or encroachment is prohibited except in accordance therewith."

In addition to the above required information, the following additional information may be necessary for specific sites as determined by the administrator:

X. Where a proposed water and sewer system does not contemplate the use of facilities owned and operated by the city, the proposed facility plans as approved by the appropriate agency, shall be submitted with the construction documents.

Y. Where public or community water supply and/or sewerage systems are not available or to be provided, a written statement from the Transylvania County Health Department shall be submitted with the construction documents indicating that each lot has adequate land area and soil conditions suitable to accommodate the proposed methods of water supply and sewage disposal.

17.13. ~~Stormwater management plan requirements.~~Reserved.

~~**A.** *Stormwater management system concept plan:*~~

~~1. When required as part of any project, a written or graphic concept plan of the proposed post-development stormwater management system shall be submitted along with other application materials and shall include: preliminary selection and location of proposed structural stormwater controls; low impact design elements; location of existing and proposed conveyance systems such as grass channels, swales, and storm drains; flow paths; location of floodplain/floodway limits; relationship of site to upstream and downstream properties and drainages; and preliminary location of proposed stream channel modifications, such as bridge or culvert crossings.~~

~~**B.** *As-built plans and final approval:*~~

~~1. Upon completion of a project, and before final zoning approval or a certificate of occupancy shall be granted, the applicant shall certify that the completed project is in accordance with the approved stormwater management plans and designs, and shall submit actual "as built" plans for all stormwater management facilities or practices after final construction is completed.~~

~~2. The plans shall show the final design specifications for all stormwater management facilities and practices and the field location, size, depth, and planted vegetation of all measures, controls, and devices, as installed. The designer of the stormwater management measures and plans shall certify, under seal, that the as-built stormwater measures, controls, and devices are in compliance with the approved stormwater management plans and designs and with the requirements of this ordinance.~~

~~3. A final inspection and approval by the administrator shall occur before the release of any performance securities.~~

CHAPTER 19. DEFINITIONS

19.3. Definitions.

Built-upon area (BUA): The portion of a development or redevelopment that is covered by impervious surfaces. Also referred to as impervious surface coverage.

Disturbed area: All lands that are stripped, graded, grubbed, filled, or excavated at any time during the site preparation or removing vegetation for, or construction of, a project. Disturbed areas include redevelopment and new impervious surface areas. Also referred to as area of disturbance.

Impervious ~~area~~surface*:* Any man-made surface which restricts the percolation of rain water into the soil including, but not limited to, areas covered by roofs, roof extensions, patios, porches, driveways, sidewalks, parking areas and athletic courts. ~~Also referred to as built-upon area, impervious surface or impervious coverage.~~ In accordance with NCGS §143-214.7D, the following is not considered an impervious ~~area~~surface:

A. A slatted deck.

B. The water area of a swimming pool.

C. The surface of number 57 stone, as designed by the American Society for Testing and Materials, laid at least 4 inches thick over a geotextile fabric.

D. A trail or greenway that is either unpaved or paved with pavement that is porous with a hydraulic conductivity greater than 0.001 centimeters per second (1.41 inches per hour).

E. Landscaping material, including, but not limited to, gravel, mulch, sand, and vegetation, placed on areas that receive pedestrian or bicycle traffic or on portions of driveways and parking areas that will not be compacted by the weight of a vehicle, such as the area between sections of pavement that support the weight of a vehicle.

F. Artificial turf, manufactured to allow water to drain through the backing of the turf, and installed according to the manufacturer's specifications over a pervious surface.

Low-impact development (LID): Stormwater control measures designed to mimic natural hydrology. For the purposes of this ordinance, LID includes stormwater wetlands, bioretention cells, infiltrations systems, permeable pavement, green roofs, Silva Cells and Filterra systems. Other LID stormwater management technology that is designed, constructed and maintained in accordance with the North Carolina Minimum Design Criteria (MDC) may be considered on a case by case basis.

Primary Stormwater Control Measure (SCM): A wet pond, stormwater wetland, infiltration system, sand filter, bioretention cell, permeable pavement, green roof, or an approved new stormwater technology that is designed, constructed and maintained in accordance with the relevant North Carolina Minimum Design Criteria (MDC) set forth in 15A NCAC 02H .1050 through .1062 *(see NCDEQ Stormwater Design Manual).*

Stormwater: Runoff generated by rain, melting snow, and other precipitation events. Stormwater is that portion of precipitation that flows across a surface to down-slope properties, the storm drain system, or receiving waters. Stormwater often carries pollutants and can cause damage to property and stream channels and can impair natural aquatic systems.

Stormwater control and treatment measure*:* A physical device designed to accomplish one or more of the following: trap, settle out, or filter pollutants from stormwater runoff; alter or reduce stormwater runoff velocity, amount, timing, or other characteristics; approximate the pre-development hydrology on a developed site. ~~Structural best management practices (BMPs) include physical practices such as constructed wetlands, vegetative practices, filter strips, grassed swales, and other methods installed or created on real property. "Stormwater control and treatment measure" is synonymous with "stormwater bmp," "structural practice," "stormwater control facility," "stormwater control practice," "stormwater treatment practice," "stormwater management practice," "stormwater control measures," "structural stormwater treatment systems," "low impact design," and similar terms used in this ordinance.~~

CODE OF ORDINANCES

CHAPTER 38. HEALTH AND SANITATION

ARTICLE II. NUISANCES

DIVISION 1. GENERALLY

30-50. Illicit stormwater usage.

A. ***Illicit discharges:***

1. No person shall cause or allow the discharge, emission, disposal, pouring, or pumping, whether directly or indirectly, of any liquid, solid, gas, or other substance, other than stormwater, into any surface water, ground water, or stormwater conveyance, except as provided herein.
2. This prohibition applies to any substance deposited upon the land in manner and amount that the substance is likely to reach a stormwater conveyance, surface or ground water.
3. The following discharges shall not be deemed illicit and shall be permitted under the terms stated:
   a. Water line flushing, except any anti-freezing agent;
   b. Landscape irrigation;
   c. Diverted stream flows;
   d. Rising ground waters;
   e. Uncontaminated ground water infiltration (as defined at 40 CFR 35.2005(20));
   f. Uncontaminated pumped ground water;
   g. Discharges from potable water sources;
   h. Foundation drains;
   i. Air conditioning condensation;
   j. Irrigation water;
   k. Springs;
   l. Water from crawl space pumps;
   m. Footing drains;

n. Lawn watering;

o. Individual residential car washing;

p. Flows from riparian habitats and wetlands;

q. Dechlorinated swimming pool discharges;

r. Street wash water; and

s. Other non-stormwater discharges for which a valid NPDES discharge permit has been approved and issued by the State of North Carolina.

4. Prohibited discharges include but are not limited to the following:

a. Discharges of oil, anti-freeze, chemicals, paints, garbage, litter;

b. Raw sewage discharges or overflows;

c. Discharges of wash water resulting from the hosing or cleaning of gasoline stations, auto repair garages, or other types of automotive service facilities;

d. Discharges resulting from the cleaning, repair, or maintenance of any type of equipment, machinery, or facility (including motor vehicles, cement-related construction equipment, port-a-potty servicing, etc.);

e. Discharges of wash water from mobile operations such as steam cleaning, power washing, pressure washing, carpet cleaning, and mobile carwash facilities; discharges of wash water from the cleaning or hosing of impervious surfaces in industrial and commercial areas including parking lots, streets, sidewalks, driveways, patios, plazas, work yards, and outdoor eating or drinking areas;

f. Discharges of runoff from material storage areas containing chemicals, fuels, grease, oil or hazardous materials or chemicals;

g. Discharges of pool or fountain water containing chlorine, biocides or other chemicals, and also discharges of pool or fountain filter backwash water;

h. Discharges of water containing sediment or construction-related wastes; and

i. Discharges of food-related wastes such as grease, oil, fish processing water, kitchen mat wash water, trash bin wash water, pouring liquids into dumpsters.

B. ***Illicit connections:***

1. Other than those exceptions listed above, it shall be unlawful to cause or permit any connection to a surface water or stormwater conveyance or stormwater conveyance system that allows the discharge of anything other than stormwater.

2. Prohibited connections include, but are not limited to the following: floor drains, wastewater from washing machines or sanitary sewers, wash water from commercial vehicle washing or steam cleaning, and wastewater from septic systems.

3. Where such connections exist in violation of this section and said connections were made prior to the adoption of this provision or any other ordinance prohibiting such connections, the property owner or the person using said connection shall remove the connection within one year following the effective date of this ordinance. Provided, however, the one-year grace period shall not apply to connections which may result in the discharge of hazardous materials or other discharges which pose an immediate threat to health and safety, or are likely to result in immediate injury and harm to real or personal property, natural resources, wildlife, or habitat.

4. Upon determining that an illicit connection may result in the discharge of hazardous materials or may pose an immediate threat to health and safety, or is likely to result in immediate injury and harm to real or personal property, natural resources, wildlife, or habitat or that a connection was made in violation of any applicable regulation or ordinance, other than this section the administrator shall designate the time limit within which the connection shall be removed. In setting the time limit for compliance, the administrator shall take these matters into consideration:
   a. The quantity and complexity of the work;
   b. The consequences of delay;
   c. The potential harm to the environment, to the public health, and to public and private property; and
   d. The cost of remedying the damage.

38-51~~0~~—38-70. Reserved.