

## ARTICLE 7.

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## **ARTICLE 7.**

### **SUBDIVISION REGULATIONS**

#### **DIVISION I. IN GENERAL**

**Sec. 18-346. Compliance with official plans and policies.**

All subdivisions shall comply with the principles, goals and/or objectives of and all officially adopted plans and policies of the City of Wilmington then in effect. Such plans and policies include, but are not limited to: thoroughfare plans, master parks and recreation plan, land development code, future land use plans, corridor plans, special area plans, and those adopted hereafter.

**Sec. 18-347. No service until full compliance.**

The installation, construction and extension of public water and sanitary sewer service shall be in accordance with the approved plans and specifications and shall comply with the requirements of the city, including zoning, subdivision and building controls and the requirements of the Cape Fear Public Utility Authority.

No water or sanitary sewer system, drainage system, street or other public right-of-way shall be accepted in accordance with subsection 18-72(a)(5) or be maintained by the City of Wilmington, nor shall any permit be issued nor any service fee accepted, except as provided in section 18-366. Standards; surety., of this article, by an administrative agent or department of the City of Wilmington for the construction of any building requiring a permit or fee, upon any land concerning which a final plat is required to be approved, unless and until there is full compliance with the requirements set forth in this chapter.

**Sec. 18-348. Variances.**

Where, because of topographical or other conditions peculiar to the site, strict adherence to the provisions of the regulations of this article and appendices hereto would cause unnecessary hardship, the subdivision review board may authorize a variance if such variance can be made without destroying the intent of this article. Any variance thus authorized is required to be entered in writing in the minutes of the subdivision review board meeting, and the reasoning on which the departure was justified set forth.

For plans that are not subject to the jurisdiction of the subdivision review board, the city engineer shall have the authority to grant variances in accordance with the guidelines listed above. For a variance to be considered, a written request must be submitted. The request must describe the variance being requested, the reasons the variance is being requested, and the degree of variance being requested. The city engineer shall provide a written response to the request. If the request is approved, the request and response shall become a part of the project file.

**Sec. 18-349. Non-conventional subdivision plats.**

Non-conventional subdivision plats which are described in this section shall be reviewed and approved by the City Manager or designee in accordance with the procedures outlined herein, prior to recordation:

- (a) *Pre-application conference.* Any non-conventional subdivision proposal shall be initiated with a pre-application conference as provided in section 18-66.
- (b) *Cemeteries.* All cemetery plats must conform to the final plat standards found in section 18-421 of this chapter.
- (c) *Replats.* Unless exempted by definition, all replats must conform to the final plat standards found in Article 15 and section 18-421 of this chapter and all of the following:
  - (1) If any individuals owning lots within the subdivision do not wish to participate in the replatting of the subdivision, the subdivider may only propose the replatting of those remaining lots in his ownership.
  - (2) No public street, right-of-way or easement, or existing lot access not in the ownership of the subdivider shall be changed, altered or adversely affected by the replatting.
  - (3) If one (1) or both of the above provisions cannot be complied with by the proposed replatting, the proposal will be reclassified as a subdivision by the City Manager and must be processed in accordance with the procedures established herein for that classification.

**Sec. 18-350. Adoption procedure for technical standards and specifications.**

The City Council shall adopt, by resolution, technical standards and specifications controlling construction practices and materials and any policies applicable to such practices and materials. The City Manager may make amendments to the standards and specifications contained therein, provided that such amendments, in the judgment of the City Manager, are of a minor nature and do not alter significantly the intent as originally adopted. The City Council, by resolution, shall have the right to repeal or alter any amendment so made by the City Manager. Any other amendments to these standards and specifications shall only be made by resolution adopted by the City Council following review of the proposed amendment by the subdivision review board. Such resolution shall set forth the revised standards and specifications or may amend the standards and specifications by incorporating by reference any document or set of standards. Any document or set of standards so adopted by reference shall be in force from and after the date it is filed in the office of the city clerk.

**Sec. 18-351. Official acceptance of improvements.**

- (a) Pursuant to G.S. 160A-374 the City Council, by resolution, may accept the

dedication of all lands and facilities for streets, parks, public utilities or other public purposes that have been approved by the subdivision review board for public dedication. The City Council shall not accept the dedication of such lands and facilities until it determines, based upon recommendation of the city engineer, that:

- (1) All lands and facilities have been properly dedicated through recorded plats, deeds, or deeds of easements.
  - (2) All lands and facilities meet City standards and have been inspected and approved by the City engineer and/or affected departments of the City.
  - (3) The subdivider has requested that the lands and facilities be accepted as public.
  - (4) The subdivider has provided a valuation of all lands and facilities to be dedicated to the City.
- (b) The acceptance of any lands and facilities through resolution of the City Council shall be subject to the following terms and conditions:
- (1) The subdivision shall guarantee all materials and workmanship for a period of eighteen (18) months from the date of official acceptance by the Council;
  - (2) The acceptance by the Council shall not be interpreted in any way to relieve any developer, contractor, subcontractor, insurance company, owner, or other person of his individual or several obligations under any ordinance, policy, or contract or to otherwise reduce or eliminate the rights of the City, its agents and employees against any other party connected with or in any way related to the development of the subdivision and facilities. The acceptance shall not be interpreted as a waiver of any defense or immunities which the City, its agencies or employees may assert or be entitled to;
  - (3) All rights, privileges and warranties of whatsoever nature and kind, for equipment, supplies, materials, goods, and services shall be assigned to the City and any and all benefits derived there from shall inure to the City, its agents, and employees. The acceptance of the lands and facilities shall be conditioned upon the owners covenanting and warranting that they are lawfully seized and possessed of all the lands and facilities dedicated to the public; that they have good and lawful authority to dedicate the same to the public for the stated purpose; that the lands and facilities are free and clear of any deeds of trust, mortgages, liens or assessments and that the dedicators for their heirs, successors, executors, administrators, and assigns, covenant that they will warrant and defend the dedication of such land and facilities against any and all claims and demands whatsoever;
  - (4) Acceptance of dedication of lands and facilities shall not obligate the City to construct, install, maintain, repair, replace, extend, improve, build or operate any

public facilities or utilities. Such acceptance shall not obligate the City to construct any main, line, pipe, lateral, or other extension or permit connection to water, sanitary sewer, storm sewer, drainage or other public utilities systems.

**Secs. 18-352--18-363. Reserved.**

## **DIVISION II. REQUIRED IMPROVEMENTS**

**Sec. 18-364. Construction plans and permits.**

(a) After approval of the preliminary plan, the subdivider shall work directly with the City engineer in the preparation and final design of construction plans for the installation of the improvements as required by this article. The subdivider shall concurrently secure a sedimentation and erosion control permit from the county engineer.

(b) Upon satisfactory completion of the construction plans, the city engineer shall issue a construction permit for the installation of the required improvements in accordance with the approved preliminary plan and the design standards as specified in Division III of this article. Unless a surety is offered in accordance with section 18-366. Standards; surety., installation of all required improvements must be approved by the city engineer prior to the submission of a final plat.

**Sec. 18-365. Construction procedures.**

(a) *Access.* All public agencies shall have access to the premises and structures of a subdivision under this chapter during reasonable hours to make those inspections as deemed necessary by them to ensure compliance with the provisions of this chapter.

(b) *Inspection.* The subdivider and/or his contractors, prior to commencing any work within the subdivision, shall make arrangements with those public agencies charged with the enforcement of the provisions of this chapter to provide for adequate inspection of his improvements.

(c) *Erosion control.* The subdivider shall cause all grading, excavations, open cuts, side slopes and other land surface disturbances to be so mulched, seeded, sided or otherwise protected to comply with the provisions of the approved sedimentation and erosion control plan for the site.

(d) *Existing flora.* The subdivider shall make every effort practically possible to protect and retain all existing vegetation not actually living in public roadways, building foundation sites, private driveways, paths and trails. Existing trees shall be identified as prescribed in the landscaping section of the zoning ordinance and shall be protected and preserved during construction in accordance with sound conservation practices. Temporary vegetation and mulching shall be used to protect critical areas, and permanent vegetation shall be installed as soon as practical.

(e) *Construction.* Construction at any given time shall be confined to the smallest practical area and for the shortest practical period of time.

(f) *Water quality improvement.* The subdivider shall implement an approved plan for the control and improvement of surface water originating from stormwater run off from impervious surfaces created within the development so that surface water exiting the site shall not exceed in volume or timing the volumes or timing that existed prior to development. The plan may incorporate vegetated swales and drainage structures, designed in concert with those facilities required under the approved Sediment and Erosion Control Plan, the Technical Standards and Specifications Manual, section 18-377. Storm water drainage, herein, and Article 14, Division III of this chapter.

**Sec. 18-366. Standards; surety.**

(a) All improvements as outlined within this article shall be installed by the subdivider in accordance with the following:

- (1) The approved preliminary plan.
- (2) The construction plans as approved by the City Manager.
- (3) The design standards as specified in Division III of this article and the adopted standards of the Cape Fear Public Utility Authority.

(b) *Financial Guarantees.* The subdivider may provide a financial guarantee in lieu of constructing improvements required herein in accordance with the following conditions:

- (1) If the total cost of the improvements and administration for which the surety is offered shall not exceed forty thousand dollars (\$40,000.00) except for minor subdivisions that require the extension of sidewalks along existing streets. The surety limit stated in this section shall be adjusted annually, at the beginning of each calendar year or fiscal year, to compensate for construction costs, inflation, or other factors, in accordance with an appropriate established index, as approved by the City Attorney.
- (2) The subdivider shall furnish bona fide estimates of the subject improvements for verification by the City Manager. Upon approval of the surety by the City Manager, the subdivider shall deposit with the City the amount specified by City Manager in the form of cash, cash equivalent, or irrevocable letter of credit.
- (3) If the subject improvements are not installed and approved within six (6) months of the City Manager's approval of the surety, or within the term of the surety, the City shall have the absolute right to utilize the funds available under the surety for completing the improvements as such improvements were approved by the subdivision review board. Prior to the award of a contract for the installation of improvements by the City, the subdivider shall deposit funds with the City or

county sufficient to pay any costs in excess of the surety which are necessary for completion of the required improvements.

- (4) In the event the City uses funds available under the surety for the completion of the required improvements, any funds remaining upon completion of the improvements shall be refunded to the subdivider.
- (5) In the event the City uses funds available under the surety for the completion of the required improvements and it is determined during the installation of such improvements that the surety is insufficient to pay all costs, the subdivider shall pay the City all amounts over and above the approved surety as are necessary to complete the required improvements. Any such amounts required to be paid by the subdivider to the City shall be in the nature of a debt owed by the subdivider to the City; and if not paid within thirty (30) days of demand by the City, the City shall have the right to secure the amount due in a civil action.
- (6) Any interest earned on funds deposited as surety shall not be refunded to the subdivider and shall be retained by the City.
- (7) No surety or portion thereof, as provided for in this section, shall be released by the City Manager until all improvements have been installed, inspected and approved, and until all required certification of such approval has been presented to the City Council.

(c) In instances where the subdivider wishes to acquire building permits for the erection of structures simultaneously with the installation of required improvements, the following items shall be accomplished as applicable, prior to building permit issuance:

- (1) Preliminary plan approval by the subdivision review board.
- (2) Issuance of a construction permit for site improvements by the city engineer.

(d) No sale of buildings or building sites, or occupancy of buildings shall be permitted prior to full completion of required improvements, approval of the final plat by the subdivision review board and recordation of the final plat. A final plat may be submitted for approval prior to the completion of all improvements under the conditions as described in paragraph (b) above.

### **Sec. 18-367. Cul-de-sac.**

(a) In an attempt to promote street connectivity, the use of culs-de-sac are discouraged whenever possible. When a street must be designed to be permanently closed at one (1) end, it shall have a permanent cul-de-sac at the closed end, the right-of-way and pavement of which shall meet the requirements as specified in the Technical Standards and Specifications Manual. Cul-de-sac shall not be longer than five hundred (500) feet. Longer cul-de-sac lengths may be authorized provided the subdivision review board determines there is no option for

providing stub streets or connectivity due to existing documented environmental features such as wetlands, natural water bodies, topographical features, environmental conditions or physical conditions such as property shape, property accessibility, or land use relationships. Where space permits, culs-de-sac shall be designed with a center vegetated island with a depressed contour and sloped with curb openings to receive runoff from the street to the extent feasible.

(b) Street projections proposed for access to adjacent properties shall have temporary turnarounds installed in accordance with this chapter and the Technical Standards and Specifications Manual.

#### **Sec. 18-368. Curbs.**

The subdivider shall construct curbs on all streets shown on the final plat. The design and construction of curbs shall be in accordance with the Technical Standards and Specifications Manual. Curbs may be designed with openings to permit runoff to be directed to landscaped areas and vegetated swales and filters where feasible.

#### **Sec. 18-369. Easements.**

(a) *Generally.* Utility rights-of-way for storm sewers, sanitary sewers, and/or water mains shall be separate and distinct from any building area on a lot, and shall be separate from the lot or located along the lot line(s), either centered or entirely on a lot, as deemed necessary by the City engineer.

(b) *Drainage easements.* Where a subdivision is traversed by a watercourse or drainage way, an easement shall be indicated on all plats of the subdivision. Such easement shall conform substantially with the lines of the watercourses or drainage ways and shall be of sufficient width as determined by the subdivision review board to be adequate for maintenance purposes. The subdivision review board, in its discretion, may require to subdivider to convey easements to the City providing the City access to and along watercourses or drainage ways traversing the subdivision for the purpose of maintaining such watercourses or drainage ways.

(c) *Utility easements.* Electrical and communication utility easements shall be required on rear lot lines and on various side lot lines for underground and/or aboveground public or private utilities. The width of such easements shall be based upon the type of utility installed and the area required for adequate maintenance of said utilities. It is recommended that electric power and communications services be placed underground within rear lot easements where possible.

(d) *Easements.* The subdivision review board may require an easement as much as fifty (50) feet in depth, in addition to the normal lot depth, for subdivisions adjacent to railroads, major streets, highways and thoroughfares, and between various types of developments. This easement shall be part of the platted lots, but shall have the following restriction notice on the face of the plat:

"This easement is established for the purpose of the planting of trees or other types of

vegetation and/or the preservation of existing vegetation; the erection of structures herein and through access by motorized vehicles is prohibited."

All buffers shall be provided in accordance with the standards found in Article 8 of this chapter.

(e) *Deeds of easement.* Easements to be dedicated to the City of Wilmington or the Cape Fear Public Utility Authority for the operation, use, replacement and maintenance of public utilities, including but not limited to water mains, sanitary sewer mains, storm drainage lines, and all appurtenances, together with the means of access to them, shall be dedicated for the public use by a separate deed of easement. If such easements are correctly and adequately described on the final subdivision plat, the easements may be described in the separate deed of easement by reference to the recorded final plat. The city engineer shall ascertain that the easements are correctly and adequately described on the final plat. The deed of easement shall be in the format as determined and approved by the City Attorney. All utilities within the easement to be dedicated shall be constructed to the specifications of the City and the Cape Fear Public Utility Authority, and will remain the property of the subdivider until officially accepted for operation, use and maintenance as part of the City's and/or the Cape Fear Public Utility Authority's system. Official acceptance shall be by resolution of the City Council. The deed of easement shall be recorded at the New Hanover County Registry.

**Sec. 18-370. Fire hydrants.**

The subdivider shall be responsible for the installation of fire hydrants within the subdivision in accordance with the standards of the Technical Standards and Specifications Manual.

**Sec. 18-371. Grading.**

The subdivider shall clear and grade proposed streets to their full right-of-way width, except where a lesser degree of grading is approved as necessary to protect tree critical root zones. Where slopes from edges of rights-of-way are required to meet yard grades, such slopes shall be placed on private property.

**Sec. 18-372. Permanent monuments.**

(a) *Permanent monuments.* Unless previously existing, a minimum of two (2) permanent control monuments of stone or concrete shall be placed at the point of intersection on the centerline of intersecting public or private street rights-of-way or at the point of intersection of the tangents of curves when such point lies within the pavement of the proposed street. Otherwise, monuments shall be placed on the centerline at the points of curvature and at the points of tangency of curves which are to be dedicated for street purposes. A table of dimensions, or dimensions between control monuments, shall be shown on the map. Metal castings or access boxes for the control monuments mentioned above shall be placed in the pavement prior to release of final sureties for road construction or final approval of road construction. (Reference G.S. 39-32.1). Such monuments shall be set nine (9) inches below the finished grade of the pavement. A metal casting of approved type will be mounted over said monument with its base

flange mounted on a brick foundation with mortar joints of at least two (2) course thickness, the top of which must be a minimum of one and three-quarters (1 3/4) inches higher than the highest point of the monument. Permanent monuments shall be at least thirty (30) inches in length, six (6) inches in diameter and shall have a metal pin or punch-marked metal plate embedded therein marking the point represented on the final plat.

In addition to the two (2) required control monuments, a control point (i.e. railroad spike, P.K. nail, iron rod, rebar) shall be set at all other centerline intersections, points of curvature, and points of tangency prior to recordation. In the event that these points are destroyed during initial project construction, it shall be the subdivider's responsibility to have said points replaced in their original horizontal position.

(b) *Lot corners.* All lot corners, other than those marked by permanent monuments as described herein, shall be marked by metal stakes not less than three-quarters ( 3/4) inch in diameter, nor less than two and one-half (2 1/2) feet in length.

(c) *Existing public right-of-way.* When a lot or lots within a subdivision abut an existing public street, highway or thoroughfare, the subdivider shall be responsible for the installation of all improvements to that portion adjacent to and which is to be utilized by that subdivision.

(d) *Pedestrian crosswalks.* Where deemed necessary by the subdivision review board, a pedestrian crosswalk at least fifteen (15) feet in width may be required through a block to provide convenient public access to a public or common area such as a park, open space area, school or a water area.

#### **Sec. 18-373. Private areas within subdivisions.**

(a) The subdivision review board shall be assured, prior to final plat approval, that adequate provisions have been made through legal covenants and restrictions which shall govern a homeowners' association, or through other legal agreements, that the responsibility as to the maintenance of the streets, utilities or other areas designated as private areas or as a common area will be accomplished by a source other than by public maintenance.

(b) The subdivider shall provide and sign an acknowledgement of compliance as specified in subsection 18-421(c) of this chapter. Such acknowledgement shall appear on the final plat of the subdivision.

#### **Sec. 18-374. Public transportation system.**

The public transportation system terminal facilities (to include turnout lanes, shelters, signs and markings), as designated by the subdivision review board, shall be constructed, provided and installed in accordance with the City's Technical Standards and Specifications Manual and acceptable traffic engineering specifications and standards.

#### **Sec. 18-375. Sewage disposal.**

The subdivider shall be required to connect to the sewage system of the Cape Fear Public Utility Authority in order to provide sewer service to every lot within the subdivision. Due consideration shall be given for existing or potential sewer lines for adjoining property in the design and arrangement of sewer lines for the proposed subdivision. Sewer connections shall be constructed under the supervision and approval of the City Manager and the Cape Fear Public Utility Authority.

**Sec. 18-376. Sidewalks, walkways, and bikeways.**

(a) Sidewalks, walkways and other pedestrian ways shall be provided by the subdivider within or adjacent to a subdivision, as deemed necessary by the subdivision review board, upon reasonable evidence that the sidewalks, walkways or other pedestrian ways would be essential for pedestrian access to community facilities, that such is necessary to provide safe pedestrian movement outside the street or street rights-of-way area or that such is an extension or could reasonably become an extension of existing sidewalks, walkways and other pedestrian ways. All sidewalks, walkways, and other pedestrian ways shall be aligned as required by the subdivision review board and designed and constructed to conform to the City's Technical Standards and Specifications Manual. Sidewalks shall be indicated on all preliminary plans.

(b) Sidewalks shall be required to be constructed in the following circumstances:

(1) On a minimum of one (1) side of the right-of-way of all thoroughfares such as freeways, expressways, arterials or collector streets, which are adjacent to the property to be developed.

(2) On each side of the right-of-way of all thoroughfares such as freeways, expressways, arterials or collector streets that run through property to be developed if the subdivider intends to construct any portion of the thoroughfare as access to his development.

(3) On each side of the right-of-way of all local streets extending through the property to be developed.

(c) The subdivision review board may exempt sidewalk installation in specific cases upon a finding that sidewalks are unnecessary for the protection of the public safety or welfare due to conditions peculiar to the site, to avoid impacting wetlands, or as part of a low impact design development plan.

(d) Reserved.

**Sec. 18-377. Stormwater drainage.**

The subdivider shall provide an adequate drainage system for the proper drainage of all surface water. The design of such a system shall be subject to the approval of the subdivision review board pursuant to these regulations:

- (a) No surface water shall be channeled or directed into a sanitary sewer.
- (b) Where feasible, the subdivider shall provide on-site infiltration or connect to an existing storm drainage system. In no case shall there be open ditches in street rights-of-way. Vegetated swales may be permitted as part of low impact development plans.
- (c) Where an existing storm drainage system cannot feasibly be extended to the subdivision, a surface drainage system shall be designed to protect the proposed development from water damage.
- (d) During the construction, preparation, arrangement and installation of subdivision improvements and facilities in subdivisions, the developer shall maintain each stream, creek, ditch or channel contiguous to or located within the subdivision in an unobstructed state and shall remove from such watercourses and the banks of the watercourses all debris, logs, timber, junk and other accumulations that would, in times of flood, clog or dam the passage of waters in their downstream course. Streams shall be maintained in their natural state and revegetated with native vegetation as necessary for stabilization. Installation of appropriately sized conduits, culverts, bridges or other required structures shall not be construed as obstructions.
- (e) All drainage shall be infiltrated or channeled to a point of appropriate discharge, such as a natural or man-made watercourse, a lake, pond, ditch, BMP, or storm drainage system. The subdivider shall provide all necessary rights-of-way to reach the point of appropriate discharge and shall accomplish all necessary work to construct the necessary system.
- (f) All necessary facilities, as determined by the subdivision review board, including, but not limited to, underground conduits, inlets, catch basins, open drainage, ditches and/or channels shall be designed and installed to provide for the adequate disposal of surface and subsurface water. The required facilities shall be designed and constructed in compliance with the Technical Standards and Specifications Manual.
- (g) Open streams, ditches and channels shall remain open when feasible. Piped channels shall be permitted only in accordance with the Technical Standards and Specifications Manual. All open streams, ditches and channels shall be prepared and stabilized in accordance with the New Hanover County Soil Erosion and Sedimentation Ordinance and in compliance with the Technical Standards and Specifications Manual.
- (h) A definite indication must be shown as to the handling of surface drainage as it leaves the subdivision and its effect on neighboring property. It is the subdivider's responsibility to provide for drainage across the subdivision for water which

enters the subdivision and water which may fall on the area of the subdivision. The subdivider must also properly dispose of this water in as nearly as possible the same manner as before the subdivision was created in compliance with the New Hanover County erosion and sedimentation ordinance and the Technical Standards and Specifications Manual.

**Sec. 18-378. Streets.**

(a) *Responsibility for Street and Transportation Improvements.* When a lot or lots within a subdivision abut an existing public street, highway or thoroughfare, the subdivider shall be responsible for the installation of all improvements to that portion of the street, highway or thoroughfare adjacent to and utilized by that subdivision.

(b) *Dedication of Streets.* All street rights-of-way shown on the preliminary and final plats shall be designated as either public or private. The designation of any street on a plat as public shall be conclusively presumed to be an offer of dedication to the public of such street.

(c) *Public Streets.* All proposed streets which have been designated as public streets in accordance with paragraph (b) above shall be designed and constructed in accordance with the Technical Standards and Specifications Manual. Streets which are proposed for inclusion on the state system shall, in addition, require approval of the NCDOT in accordance with the provisions of G.S. 136-102.6.

(d) *Private Streets.* Streets designated as private in accordance with paragraph (b) above may be allowed in subdivisions when, in the opinion of the subdivision review board, they provide adequate ingress and egress onto collector streets, and they provide sufficient assurance through legally established homeowners or similar owners associations, deed restrictions, and/or covenants, or other maintenance agreements, that said street shall be properly maintained and said agreements perpetually carried with the land. The subdivision review board shall reserve the authority, when the public welfare and safety warrant, to require the public dedication of street rights-of-way within developments. All private streets shall be designed and constructed to meet or exceed the public street standards as specified by the Technical Standards and Specifications Manual.

(e) *Subdivision Street Disclosure Statement.* Prior to entering any agreement regarding the sale of a house or lot in a subdivision, the buyer must receive a subdivision street disclosure statement. Said disclosure statement shall fully and completely disclose the status (whether public or private) of the street upon which the house or lot fronts. If the street is designated by the subdivider as a public street, the statement shall certify that the design and construction of said street meets or exceeds City standards and, if applicable, has been approved by the district highway engineer. If the street has been designated as a private street by the subdivider, the statement shall, in addition to certifying the compliance with City standards, explain the consequences and responsibility as to maintenance of private streets and shall fully and accurately disclose the individuals upon whom responsibility for maintenance of such streets shall rest. Written acknowledgement of receipt of the disclosure statement by the buyer shall be conclusive proof of delivery thereof.

(f) *Street Classification.* Streets shall be installed in accordance with the appropriate design standards for their street class, as specified in the Technical Standards and Specifications Manual. Use of the "local street" class within subdivisions for access to individual lots is recommended and in most instances will be desirable to the subdivider by providing an adequate, yet economical, facility for access. Local street systems shall be designed to accommodate their use by through traffic. However, design of streets shall be such to discourage excessive use of residential streets for through traffic. Excessive shall be interpreted to be only those instances where a local street would carry a volume of cars per day greater than one hundred twenty-five (125) percent of its estimated capacity. However, when, in the opinion of the subdivision review board, the design of a local street, as delineated on the subdivision plat, will encourage and/or increase through traffic beyond the capacity of a general local street, the street shall be reclassified to the appropriate higher classification and said street shall be designed and constructed to meet the standards of the reassigned classification.

(g) *Subdivisions within Planned Thoroughfare or Collector Street Corridors.* In order to minimize the impacts of thoroughfare and collector street development and in order to facilitate a collaborative design process for the alignments of thoroughfares and collector streets, the owner or subdivider of a property that is associated with (e.g. – adjacent to or contains ) a proposed major thoroughfare or collector street, must prepare a sketch plan for review and approval prior to the submission of a preliminary plat. In addition to the standard requirements for sketch plan the subdivider shall request in writing a meeting at least sixty (60) days prior to the scheduled sketch plan review.

Reserved. (i) *Access to Adjacent Properties.* The arrangement of streets in proposed subdivisions shall make provisions for the continuation of existing streets in adjoining areas or their proper projection where adjoining land is not subdivided and where they may be deemed necessary for public requirements. For large subdivisions adjacent to large tracts of unsubdivided property, street projections shall be required into the adjacent unsubdivided tracts at a maximum distance of every one thousand (1,000) feet. The street arrangement shall be such as not to cause a hardship to owners of adjoining property when developed and when they seek to provide for convenient access thereto. The use of residual strips of land in order to prevent the extension of proposed or existing streets or access thereto is prohibited.

Street projections shall be designed and constructed as follows:

- (1) Where there are lots fronting street projections to adjacent properties and services are required, a temporary turnaround shall be constructed at the end of the street at the property line, said turnaround to be constructed in accordance with the Technical Standards and Specifications Manual.
- (2) Where there are no lots fronting street projections to adjacent properties and sight distance is adequate to forewarn a driver of a dead-end street, and where no services are required along the frontage, the frontage being more or less one (1) side lot length, the street may be constructed to the property line and dead-ended with no cul-de-sac required in accordance with of the Technical Standards and

Specifications Manual.

- (3) The subdivision review board shall reserve the right to require or not to require the partial or total initial construction of street projections to adjacent properties, or to require guarantee of construction of all or part of such street projections at a later time by provision of surety in the form of cash, letter of credit or other method acceptable to the City.
- (4) In any and all cases, the developer shall be responsible for the cost of and placement of all required dead-end barricades and signs.
- (5) Additional rights-of-way needed for a temporary turnaround at the end of the street projections to adjacent properties shall be in the form of temporary easements or rights-of-way granted to the City by proper instrument as approved by the City Attorney. It is the intention that upon extension of the street into the adjacent property the requirement for a cul-de-sac will cease and that the temporary right-of-way granted for the cul-de-sac construction will revert to the adjacent property owner.

(j) In phasing the construction of street improvements within approved subdivisions, the developer must make provision for vehicle turnarounds at the end of street construction for each phase. If the street end of a particular planned phase of development is within a distance of two hundred fifty (250) linear feet, more or less, from the next planned intersection in a succeeding phase, the developer will be required to construct the street to, and complete all improvements within, the intersection in accordance with requirements for completed intersections, including barricades, as specified in the Technical Standards and Specifications Manual. The completed intersection will then serve as a vehicular turnaround.

(k) *Street Connectivity Requirements.* The City of Wilmington hereby determines and recognizes that an interconnected street system is necessary in order to protect the public health, safety and welfare, in order to ensure that streets will function in an interdependent manner, in order to provide adequate access for emergency and service vehicles, in order to enhance non-vehicular travel such as pedestrians and bicycles and in order to provide continuous and comprehensible traffic routes. For reference, see Institute for Transportation Engineers, ITE Transportation Planning Council Committee 5P-8, Traditional Neighborhood Development Street Design Guidelines (June 1997)

All proposed streets shall be continuous and connect to existing or platted streets without offset with the exception of cul-de-sacs as permitted and except as provided below. The street network for any subdivision shall achieve a connectivity ratio of not less than 1:40. The phrase "connectivity ratio" means the number of street links divided by the number of nodes or link ends, including cul-de-sac heads. A "link" means and refers to that portion of a street defined by a node at each end or at one (1) end. Approved stubs to adjacent property shall be considered links. Alleys shall not be considered links.

A "node" refers to the terminus of a street or the intersection of two (2) or more streets,

except that intersections that use a roundabout shall not be counted as a node. For the purposes of this section, an intersection shall be defined as: any curve or bend of a street that fails to meet minimum curve radius in accordance with the Technical Standards and Specifications Manual, or any location where street names change as reviewed and approved by the technical review committee.

For purposes of this subsection, the street links and nodes within the collector or thoroughfare streets providing access to a proposed subdivision shall not be considered in computing the connectivity ratio.

Residential streets shall be designed so as to minimize the block length of local streets, to provide safe access to residences with minimal need for steep driveways and to maintain connectivity between and through residential neighborhoods for autos and pedestrians.

Where necessary to provide access or to permit the reasonable future subdivision of adjacent land, rights-of-way and improvements shall be extended to the boundary of the development. A temporary turnaround may be required where the dead end street exceeds five hundred (500) feet in length. The platting of partial width rights-of-way shall be prohibited except where the remainder of the necessary right-of-way has already been platted, dedicated or established by other means.

New subdivisions may be exempt from the connectivity ratio standard as set forth in this section, provided the appropriate reviewing agency determines there is no option for providing stub streets or connectivity due to existing documented environmental features such as wetlands or natural water bodies or existing adjacent developed property.

#### **Sec. 18-379. Street names and signs; subdivision names.**

(a) All streets that are in alignment with other existing and named streets shall bear the existing street name. Names of proposed streets or subdivisions shall not duplicate or be phonetically similar to existing street names. No proper names can be used. It shall be the responsibility of the subdivider to erect official street name signs at all intersections associated with the subdivision in accordance with the Technical Standards and Specifications Manual. The subdivider may acquire and erect official street name signs or may choose to contract with the City to install the street signs and the subdivider shall pay the cost of such installation.

(b) Subdivision names shall not duplicate or be phonetically similar to existing development or subdivision names within the City or county, except where existing developments are expanded.

#### **Sec. 18-380. Street lights.**

The City shall install street lights within subdivisions in accordance with the standards of the City. In instances where underground wiring is specified, the subdivider shall reimburse the City for the initial contribution required under the utility company's street lighting service schedule (customer participation) at the time of installation.

**Sec. 18-381. Traffic-control devices.**

The City shall install traffic signals, traffic signs, dead-end barricades and markings in accordance with the standards of the City. The subdivider shall pay to the City the costs associated with the installation of dead-end barricades and markings.

**Sec. 18-382. Water supply.**

The subdivider within the City limits shall connect to the water system of the City of Wilmington in order to provide water to every lot within the subdivision. Mains shall be constructed in accordance with City standards and policies. Water connections shall be constructed under the supervision and approval of the City Manager.

**Sec. 18-383. Recreation space.**

(a) *General provisions.* Every subdivider of land for residential purposes, shall dedicate a portion of such land, as set forth herein, for the purpose of providing active and passive recreation areas to serve the residents of the immediate neighborhood within the subdivision.

(b) *Active and passive recreation space dedications.*

(1) Recreation areas shall be defined for active or passive recreation use as follows:

- a. Active recreation consists of areas such as park land chosen without regard to natural features for the explicit purposes of enhancing design, such as village commons, or providing space for outdoor recreation activities which may include, but are not limited to, tennis courts, ball fields, swimming pools, and tot lots with play equipment. No more than twenty-five (25) percent of the required active recreation may be located in an indoor facility such as, but not limited to, exercise rooms, clubhouses, and gymnasiums. Parking spaces associated with these uses, whether required or not, shall not be counted towards satisfying the required active recreation space provision.
- b. Passive recreation areas shall consist of undisturbed, unique and sensitive natural features when available, that may include streams, flood plains, wetlands (excluding tidal marsh) conservation resources, and natural heritage areas, if identified. These natural spaces will be characterized by undisturbed soils and natural vegetative cover for wildlife habitat. Passive recreational space may become part of designated City and County greenways. Amenities such as walking paths, piers, picnic areas and other passive recreational uses will be allowed with minimal disturbance of the vegetation.

- (c) *Required recreation space.*
- (1) All new residential subdivisions shall provide recreation space in the amount of 0.03 acres per dwelling unit within the subdivision. No more than fifty (50) percent of the required recreation space can be designated as either active or passive recreation areas. Natural areas set aside as contiguous undisturbed open spaces can be used to satisfy passive recreation area requirements and can exceed fifty (50) percent of the total provided the basic requirements of active recreation are met.
- (2) Recreation space areas shall be of such minimum dimensions as to be functionally usable and maintainable. Residential subdivisions that are small enough so that the amount of required recreation space area does not exceed twenty thousand (20,000) square feet shall be exempt from providing such space when the board determines that:
- a. Recreation space area cannot be combined with such areas serving adjacent property to form a functionally usable and maintainable area; or
  - b. The recreational needs of the development can be adequately met by existing or planned City-owned park, recreation or open space areas located close enough to such development to reasonably serve its residents. In determining the size of a subdivision for the purposes of this subsection, the board shall consider the entire project developed on a single tract or contiguous multiple tracts under common ownership, regardless of whether the subdivision is constructed in phases or stages. The developer of any subdivision that is exempt from providing on-site recreation or open space shall pay a fee to the City in lieu thereof, to be used by the City to acquire recreation areas serving the development within the immediate area of the subdivision. Such fee shall be determined and paid as provided in the "Payments in Lieu of Dedication" provisions of this section; or
  - c. The subdivision review board may allow the development to provide a combination of some open space and pay a fee to the City in lieu thereof when conditions exist where providing the entire amount of required open space is not reasonable and the recreational needs of the development can be adequately met. The maximum amount of open space that can be considered for payment in lieu is twenty thousand (20,000) square feet. The developer of any subdivision permitted to develop under this option shall pay a fee in lieu thereof, to be used by the City to acquire recreation areas serving the development within the immediate area of the subdivision. Such fee shall be determined and paid as provided in the "Payments in Lieu of Dedication" provisions of this section.
- (d) *Standards for park, recreation and open space areas.* Except as otherwise

approved by the appropriate governing body, all park, recreation and open space areas shall meet the following criteria:

- (1) *Unity.* The dedicated land shall form a single parcel of land, whether or not the subdivision is developed in phases or sections, except where it is determined by the board, that two (2) or more parcels would be in the best interests of the residents of the subdivision and the public; and in such case, the board, may require that such parcels be connected.
- (2) *Usability.* At least one-half (1/2) of the total land dedicated must be outside of wetland areas under the jurisdiction of the Federal and State regulatory agencies and usable for active recreation. Areas set aside to meet the requirements of the Conservation Resource Regulations can only be credited for one-half (1/2) of the area required for Passive Recreation. Tidal marshes may not be counted to satisfy the Recreational Space Requirements.
- (3) *Shape.* The portion of dedicated land to be used for active recreation shall be of such a shape to be usable for active recreational facilities including but not limited to tennis courts, racquetball courts, swimming pools, exercise rooms, clubhouses, athletic fields, basketball courts, swings, slides and play apparatus.
- (4) *Greenways.* If open space is a greenway, the land shall be a continuous linear parcel through the subdivision of at least thirty (30) feet in width.
- (5) *Location.* The dedicated land shall be located so as to reasonably serve the recreation and open space needs of residents of the immediate neighborhood within the subdivision for which the land dedication is made and can be combined with an adjacent park. The location of dedicated land shall be in conformance with any adopted open space plans.
- (6) *Access.* All dwelling units in the subdivision shall have free, easy and convenient ingress and egress to and from the park, recreation and open space areas provided within the development by means of improved streets or dedicated walkways. Rights-of-way for such access shall be shown on the preliminary plans and final plats.
- (7) *Topography.* The average slope of the portion of dedicated land deemed usable for active recreation shall not exceed the average slope of the entire subdivision to be developed, and in no case shall the slope of the land dedicated be greater than fifteen (15) percent.
- (8) *Required stormwater detention/retention facilities.* Required stormwater detention/retention facilities that are not designed, landscaped, and maintained as naturalized amenities integrated into preserved natural areas shall not be accepted to fulfill the requirements set forth by this section. Actual space devoted towards amenities, such as walking paths, piers, picnic areas, and other passive

recreational space that are associated with stormwater management facilities (i.e., wet ponds) shall receive credit towards the calculation of open space if such amenities associated with stormwater management facilities are designed according to the standards specified in the Technical Standards and Specifications Manual to meet this requirement.

- (9) *Landscaping.* Park and recreation areas shall be landscaped and shall contain sufficient natural or manmade screening or buffer areas to minimize any negative impacts upon adjacent residences. Natural open space areas shall be left undisturbed in their natural vegetated condition or revegetated with native plantings if previously disturbed or disturbed during development.
- (10) *Encroachments.* The park, recreation and open space areas required by this section shall exclude roadways, parking areas and other accessory uses except recreational facilities.
- (11) *Consistency with master parks plan.* If any portion of any subdivision proposed for residential development lies within an area designated on the officially adopted city or county master parks plan as a park, such area shall be included as part of the area set aside to satisfy the requirements of this section. This area shall be dedicated to public use.
- (12) *Recreational facilities.* The board may require the installation of recreational facilities after considering:
  - a. the character of the park, recreation and open space area
  - b. the estimated age and the recreation needs of person likely to reside in the development
  - c. the proximity, nature, and excess capacity of existing municipal recreational facilities
  - d. the cost of the recreational facilities.
- (e) *Procedure for dedication of land.*
  - (1) *Designation of land to be dedicated.* Subdividers shall designate on the preliminary subdivision plan, the area or areas to be dedicated pursuant to this section.
  - (2) *Review of land to be dedicated.* Upon receipt of the preliminary subdivision plan, the planning division shall submit a copy thereof to the City Manager for review. The City Manager shall submit any and all recommendations concerning the land to be dedicated to the subdivision review board at its next scheduled meeting.

- (3) *Ownership.* The type of ownership of land dedicated for park, recreation or open space purposes shall be selected by the owner, developer, or subdivider, subject to the approval of the board. Provided, however, any of such areas included in the master parks plan shall be dedicated to the City. The type of ownership may include, but is not necessarily limited to, the following:
- a. The City, subject to the acceptance by the Wilmington City Council;
  - b. Other public jurisdictions or agencies, subject to their acceptance;
  - c. Property owner, condominium or cooperative associations or organizations;
  - d. Shared, undivided interest by all property owners in the subdivision.
- (f) *Payments in lieu of dedication.*
- (1) *General provisions.* When the board determines (upon the recommendation of the City Manager) that the park, recreation and open space needs of a subdivision may also be adequately met by facilities constructed or to be constructed on city-owned property or property to be acquired by the city within a reasonable time that is located close enough to such subdivision to reasonably serve its residents, the board may authorize the subdivider to make a payment to the city in lieu of dedication of park, recreation, or open space. The board may also authorize a combination dedication and partial payment in lieu of dedication when such is determined to be in the best interest of the citizens of the area to be served.
- (2) *Procedure.* The subdivider shall include with the application for preliminary plan approval, a letter requesting approval to make a payment in lieu of dedication. The letter shall include the proposed per acre value and the basis for the determination of such value. Upon receipt of the preliminary subdivision plan, a copy thereof with the letter requesting a payment in lieu of dedication shall be submitted to the City Manager. The City Manager shall submit any recommendations concerning the request to the board at its next scheduled meeting.
- (3) *Amount of payment.* If the board approves a payment in lieu of dedication, the amount of such payment shall be the product of the number of acres to be dedicated as outlined in subsection (b) above, and the average fair market value of the land being subdivided at the time of the submission of the preliminary subdivision plan. The board shall determine the average fair market value of the land based on the value of the land for property tax purposes, the information submitted by the subdivider and other relevant information.
- (4) *Use of payments in lieu of dedication.* All monies received by the City pursuant to this section shall be used only for the acquisition or development of recreation,

park, or open space areas that will benefit the new subdivision residents.

- (5) *Required payment in lieu of dedication.* In the event the board finds that a land dedication does not meet the long range plans of the City it shall require payment in lieu of a dedication.
- (6) *Time of payment.* If a payment in lieu of dedication is authorized, such payment shall be made before recording the final plat for the subdivision. If a subdivision is developed in phases, a payment relating to each phase must be made prior to the recording of a final plat for each phase.
- (g) *Flexibility in administration authorized.*
- (1) The requirements set forth in this subsection concerning the amount, size, location and nature of park, recreation and open space areas to be provided in connection with residential developments are established by the City Council as standards that preemptively will result in the provision of that amount of recreational facilities and open space that is consistent with officially adopted City or county plans. The City Council recognizes, however, that due to the particular nature of a tract of land, or the nature of the facilities proposed for installation, or other factors, the underlying objectives of this section may be achieved even though the standards are not adhered to with mathematical precision. Therefore, the board is authorized to permit minor deviations from these standards whenever it determines that:
  - a. the objectives underlying these standards can be met without strict adherence to them;
  - b. because of peculiarities in the developer's tract of land or the facilities proposed it would be unreasonable to require strict adherence to these standards.
- (2) Whenever the board authorizes some deviation from the standards set forth in this section, the official record of action taken on the development application shall contain a statement of the reasons for allowing the deviation.

**Sec. 18-384. Property owner associations.**

(a) Final plans shall not be approved until the subdivision review board or chairman of the subdivision review board has determined that adequate provisions have been made through legal covenants and restrictions which shall govern a property owners' association, or through other legal agreements, that the responsibility for maintenance of streets, utilities, storm water management facilities, drainage ditches or swales, or other area designated as private areas.

- (b) Required conditions of property owners associations. Property owners

associations or similar legal entities that shall own and maintain park, recreation and open space areas, streets, utilities, storm water management facilities, drainage ditches or swales, or other areas designated as private areas or as common areas shall be established in such a manner that:

- (1) Provision for the establishment of the association or similar entity shall be made before any lot in the development is sold or any building occupied.
- (2) Membership must be mandatory for each property owner within the subdivision.
- (3) The association shall be responsible for the liability insurance, property taxes and the maintenance of the areas.
- (4) Any sums levied by the association that remain unpaid shall become a lien on the individual property owner's property.
- (5) If all or any portion of the property, held by the association is being disposed of, or if the association is dissolved, the passive and active recreation and open space shall be first offered for dedication to the City.
- (6) The right of use of the passive and active recreation or open space and all private improvements shall be guaranteed to each resident of the subdivision.

The declaration of covenants and restrictions that will govern the association shall be submitted for review by the City Attorney and recorded prior to the recording of any final plats for the subdivision and reference to the deed book and page provided on the plat.

(c) Property owners' associations shall be responsible for continuing upkeep and proper maintenance of all private infrastructure facilities and common areas within the respective subdivision.

**Sec. 18-385. Reservation of public sites.**

It is recommended that subdividers reserve sites for public facilities, such as schools and fire stations, and to provide the City an opportunity to buy such sites at the fair market value for a period of six (6) months from the date of approval of the Preliminary Plat.

**Sec. 18-386. Transportation plans.**

All preliminary and final plans for subdivisions should be in compliance with the Greater Wilmington Urban Area Thoroughfare Plan, Wilmington Urban Area Metropolitan Planning Organization Comprehensive Transportation Plan, Wilmington Urban Area Metropolitan Planning Organization Long Range Transportation Plan and all other roadway, traffic management, transit, pedestrian, bicycle, greenway and trail plans that have been adopted by the Wilmington City Council or the North Carolina Board of Transportation. Transportation facilities identified in these adopted plans shall be shown on all plants, preliminary and final.

**Secs. 18-387--18-396. Reserved.**

### **DIVISION III. MINIMUM STANDARDS OF DESIGN**

**Sec. 18-397. Generally.**

- (a) The design standards for improvements made in a subdivision shall conform to:
  - (1) The minimum design standard contained within this article and any amendments made thereto.
  - (2) The "Technical Standards and Specifications Manual, City of Wilmington," then in effect.
  - (3) Any additional requirements made by an authoritative public agency that can substantiate its request; or
  - (4) Any combination of the above references that will provide for and maintain the quality of development which ensures good engineering practices.
- (b) Whenever topographic or other physical conditions of the site require more stringent engineering practices or standards, such standards and practices shall be utilized and followed in the design of a subdivision. The subdivision review board may waive those standards that place a physical, but not an economic, hardship on the subdivider due to existing topographic or other physical conditions of the site.
- (c) No final plat shall be submitted until all required improvements have been completed by the subdivider and approved by the City engineer or unless a surety is offered in accordance with section 18-366. Standards; surety.

**Sec. 18-398. Applicability of minimum design standards.**

The Technical Standards and Specifications Manual shall be the prime source of design standards for improvements made to subdivisions. The following listing gives the major topics covered by the manual:

- (a) Asphalt paving.
- (b) Bikeways.
- (c) Concrete.
- (d) Construction materials.
- (e) Curb and gutter.

- (f) Erosion and sedimentation control.
- (g) Excavation, grading and backfill.
- (h) Public rights-of-way and easements.
- (i) Public transportation.
- (j) Refuse collection.
- (k) Reserved.
- (l) Sidewalks.
- (m) Storm drainage.
- (n) Streets.
- (o) Traffic engineering.
- (p) Reserved.

**Sec. 18-399. Alternate design and construction methods, use and materials.**

The design and construction standards, as specified herein and in the Technical Standards and Specifications Manual, shall be the minimum requirements. These minimum requirements are not intended to prevent alternate design, construction methods, or construction materials not specifically prescribed herein, provided any such alternate has been approved and its use authorized by the city engineer. The city engineer shall approve any such alternate, provided he finds the proposed design is satisfactory and complies with the minimum requirements as specified herein and that the material, method, or work offered is, for the purpose intended, at least the equivalent of the minimum requirements as specified herein. The city engineer shall require that sufficient evidence or proof is submitted to substantiate any claim that may be made regarding an alternate method, use or material. If, in the opinion of the city engineer, the evidence and proof are not sufficient to justify approval, the alternate shall be denied.

**Sec. 18-400. Subdivider's responsibility.**

While the Technical Standards and Specifications Manual has been compiled and published for the convenience of the public, the subdivider shall retain the responsibility to design and construct all improvements in conformance with the standards as they are approved by the City, whether at the level of minimum requirements or greater.

**Sec. 18-401. Bikeways.**

(a) If the subdivider elects to incorporate bikeways within a subdivision, he shall be responsible for providing the required markings and the acquisition and erection of all signs, signals or other items in order to create safe bicycling conditions as deemed necessary by the subdivision review board.

(b) The subdivision review board may require the subdivider to make provisions for a bikeway, i.e., increased right-of-way, etc., to be installed at the City's expense.

#### **Sec. 18-402. Blocks.**

(a) *Generally.* The lengths, widths and shapes of blocks shall be determined with due regard to provision of adequate building sites suitable to the special needs of the type of use contemplated; zoning requirements as to lot sizes and dimensions; needs for vehicular and pedestrian circulation, control and safety of street traffic; limitations and opportunities of topography; and convenient access to public recreational areas.

(b) *Block length.* Blocks shall not exceed one thousand (1,000) feet in length and through/connecting streets shall be required.

(c) *Block width.* Blocks shall have sufficient width to allow two (2) tiers of lots of minimum depth, except where single tier lots are required to separate residential development from through vehicular traffic, to separate the lots from another type of use, to provide for uncongested traffic flow, to allow for unusual topographic conditions or in instances where said lots are adjacent to subdivision perimeter property lines.

(d) *Pedestrian access.* Where deemed necessary by the subdivision review board, a pedestrian access at least fifteen (15) feet in width may be required through a block or connecting streets or cul-de-sacs to provide convenient public access to a public or common area such as a park, open space area, school or a water area.

#### **Sec. 18-403. Emergency services.**

Subdivisions shall be designed to accommodate and allow unobstructed ingress and egress of all emergency vehicles and equipment in order that emergencies for life and property safety may not be unnecessarily delayed.

#### **Sec. 18-404. Entrance signs and lighting.**

Signs delineating the subdivision name and any lighting associated with such sign shall be constructed in compliance with the City of Wilmington sign regulations (Article 12 of this chapter).

#### **Sec. 18-405. Intersections.**

Street sections shall be laid out as follows:

- (a) Streets shall intersect as nearly as possible at right angles, and no street shall intersect at an angle of less than seventy-five (75) degrees.
- (b) Intersections along a major thoroughfare shall be at least one thousand (1,000) feet apart, as measured from centerline to centerline or as determined by the subdivision review board.
- (c) Where a street intersects a state-maintained highway, the design standards of the North Carolina Department of Transportation shall apply.

**Sec. 18-406. Lots.**

- (a) *Generally.* Lot sizes, shapes and locations shall be made with due regard to topographic conditions, contemplated use and the surrounding area.
- (b) *Subdivisions subject to zoning district regulations.* Lots shall conform to the area, dimensional and building setback requirements as prescribed in Article 5 of this chapter for the appropriate zoning district in which the proposed subdivision will be located.
- (c) *Lot access.* Each lot of a subdivision shall individually abut or be adjacent to an approved street or private access easement as defined in Article 15 of this chapter. Townhouse-type subdivisions may be exempted from this requirement at the discretion of the subdivision review board; provided, however, in all cases, each individual lot shall be assured safe and reasonable vehicular access to and from an approved street.
- (d) *Double frontage.* Double frontage or reverse frontage lots shall be avoided. Whenever the exception of such lots is permitted, the provisions of this chapter in subsection 18-369(d) and section 18-402 shall be provided by the subdivider.
- (e) *Corner lots.* Corner lots are recommended to be increased one and one-half (1.5) times the minimum required lot size since corner lots normally have less building area due to the front setback line being applicable to two (2) or more sides.
- (f) *Side lot lines.* Side lot lines shall be substantially at right angles or radial to street lines. Where side lot lines intersect at the rear of the lot, the angle of intersection shall not be less than sixty (60) degrees.
- (g) *Maximum depth.* Lots may not have a depth greater than four (4) times the mean width.
- (h) *Flood plain lots.* Any portion of a subdivision subject to flooding and other hazards deemed by the subdivision review board to make the property uninhabitable shall be prohibited for occupancy or other uses that may jeopardize life, health or property. All subdivisions shall conform with the flood plain regulations of Article 13 of this chapter. Lots known to be within the 100-year FEMA flood plain or any area known to be subject to flooding shall be so identified on the preliminary plat and final subdivision plat.

**Sec. 18-407. Natural assets.**

In any subdivision every effort shall be made to preserve natural features such as trees, ponds, streams, rivers, lakes, beaches and for any historical sites which are of value not only to the subdivision, but to the community as a whole.

**Sec. 18-408. Transportation facilities.**

Transportation facilities developed as required by an adopted transportation plan as referenced in Sec. 18-386. Transportation Plans must be publicly dedicated and built to the required standards.

**Secs. 18-409--18-418. Reserved.**

**DIVISION IV. SPECIFICATIONS FOR REQUIRED PLATS AND RELATED PLANS,  
CERTIFICATES AND STATEMENTS**

**Sec. 18-419. Preliminary plan.**

- (a) *Generally.* The subdivider shall submit:
  - (1) One legible drawing noted as a preliminary plan, which contains the information as specified in this section for a preliminary plan, drawn or transposed on a reproducible material, either Mylar or sepia, to a scale of one (1) inch equal to one hundred (100) feet, or other scale acceptable to the public works department; and
  - (2) Sufficient copies of each as specified by the public works department.
- (b) *Content of preliminary plan.* The preliminary plan shall be a plan view of the subdivision with all contiguous property shown, and shall include the following items:
  - (1) The boundaries of the entire contiguous tract, distinctly and accurately represented, with all bearings and distances shown. This can be prepared from added descriptions, existing maps or other sources. A final field survey by a registered land surveyor is not required and is optional with the owner or developer. Nothing herein shall, however, obviate the requirement of a survey on all final plats.
  - (2) Proposed streets, existing and platted streets on adjoining properties and in the proposed subdivision, and rights-of-way widths.
  - (3) Proposed street names (must be unduplicated county-wide).
  - (4) Any proposed path or trail, buffer, gas, electric or communication system easements or rights-of-way, their location, width and purposes.

- (5) Existing and proposed lot lines, both on the tract to be subdivided and on adjoining properties. Corporate limits, township boundaries and county lines shall be depicted.
- (6) All blocks lettered consecutively throughout the entire subdivision and all lots numbered consecutively within each block.
- (7) Location and size of proposed parks, school sites, recreational areas or open spaces, and designation of future ownership and/or dedication.
- (8) The names of owners of adjoining unplatted properties and the name of any adjoining subdivisions (of record or under review).
- (9) North arrow, noted whether true or magnetic.
- (10) Graphic scale.
- (11) A sketch vicinity map showing the relationship between the proposed subdivision and the surrounding area at a scale of approximately one (1) inch equal to two thousand (2,000) feet, or other scale or size acceptable to the public works department.
- (12) Title block to include:
  - a. Name of subdivision.
  - b. Location by municipality, township, county and state.
  - c. Name and address of subdivider.
  - d. Scale denoted numerically (example: One (1) inch equals one hundred (100) feet).
  - e. Name and address of individual or firm preparing plans.
  - f. File number of private firm preparing plans.
  - g. Sheet number.
  - h. Signature line for draftsman, engineer or designer.
- (13) Recent accurate topographic information based on mean sea level datum, with contour interval of two (2.0) feet, more or less, or as acceptable to the public works department.

- (14) A City of Wilmington standard typical street cross section, if applicable, which includes:
- a. Scale of one (1) inch equals ten (10) feet, or other scale acceptable to the City Manager, with scale noted.
  - b. Roadway width.
  - c. Street right-of-way width.
  - d. Roadway pavement and base (type and thickness).
  - e. Curb and gutter.
  - f. Sidewalks (type, width, and thickness).
  - g. Sidewalk area and plaza (if sidewalks are not constructed).
  - h. Crown of roadway (centerline grade in reference to curb grade).
  - i. Sidewalk and plaza grade (one-fourth(1/4) inch per foot).
- (15) General location, with sizes noted, of existing water, sewer or storm drainage lines or systems in the immediate or adjacent area, which includes, but is not limited to, pumping stations, manholes, catch basins, etc.
- (16) General location only, with sizes or other information noted, of proposed water lines, fire hydrants, valves, sewer lines, storm drainage lines, manholes, catch basins, force mains, pumping stations or any other system intended to or proposed to serve the development, showing tie-in locations to existing systems.
- (17) Sidewalks shall be indicated on the preliminary plan in accordance with provisions of section 18-376. Sidewalks, walkways, and bikeways., of this article.
- (18) Site inventory pursuant to Article 3 of this Chapter.
- (19) Facilities required by any adopted plan, as referenced in Sec. 18-386. Transportation Plans, shall be shown on the preliminary plan.

(c) *Feasibility.* It is the intention of the City, in requiring the preliminary plan, that the plan show the feasibility of developing the tract in the manner stipulated, and that detailed and extensive engineering work, such as final horizontal and vertical locations and descriptions of such items as listed above, will not be necessary at this stage, but will become necessary when construction plans are prepared, in accordance with, section 18-420 of this article.

(d) *Additional sheets.* The above denotes the minimum requirements for the

preliminary plan, which is required on one (1) sheet. If the subdivider prefers to use more than one (1) sheet to provide the requested information, this will be acceptable. Any supplemental information desired to be submitted by the subdivider to facilitate the review will be acceptable.

(e) *Final plat.* Initial submissions for subdivisions meeting criteria for minor subdivisions, as defined herein, shall consist of the items listed above, as applicable, on the plan. After the first submittal, when the City has a plan in hand denoting the total area in question, a final plat may be submitted for the lot or lots desired to be subdivided.

**Sec. 18-420. Construction plans, profile and detail sheets.**

(a) *Generally.* The subdivider shall prepare and present to the city engineer one (1) legible reproducible copy and a sufficient number of prints of the construction plans as specified by the City engineer. The construction plans shall delineate the required improvements to be installed both within and outside the tract of land to be subdivided.

(b) *Content of construction plans and profile sheets.*

(1) Title block to include:

- a. Name of subdivision.
- b. Name and address of subdivider.
- c. Date.
- d. Scale.
- e. Name and address of firm preparing plans.
- f. Name of designer of plans.
- g. Name of individual drawing plans for firm.
- h. Name of individual checking plans for firm.
- i. Firm's file number.
- j. Sheet number.

(2) Plan and profile sheets:

- a. Scale of one (1) inch equals forty (40) feet horizontal and one (1) inch equals two (2) feet vertical, with scale noted, or other scale as acceptable to the city engineer.

- b. North arrow, noted whether true or magnetic.
  - c. Legend.
  - d. Benchmarks (location and elevation).
  - e. Existing lots and ownership or proposed lot layout, and numbered in conformance with the final plat.
  - f. Paved roadway area.
  - g. Street right-of-way.
  - h. Rights-of-way or easements for utilities or drainage located outside of the street right-of-way.
  - i. Street names.
  - j. Radii at street intersections (existing or proposed).
  - k. Existing or proposed utilities and utility structures (water mains, sewer mains, storm drains, sub drains, manholes, hydrants, valves, valve boxes and fittings by size, type and horizontal location).
  - l. Existing or proposed driveways and intersections.
  - m. Distance and location of the nearest hydrants located outside the tract of land to be developed noted.
  - n. Parking and loading areas if applicable.
- (3) Curve data:
- a. Curve number.
  - b. Deflection angle.
  - c. Radii.
  - d. Tangent length.
  - e. Length of curve.
- (4) Detail sheets:
- a. Structural details.

- b. All other details pertinent to the development.

**Sec. 18-421. Final plat.**

- (a) *Generally.*
  - (1) The final plat shall depict or contain the information outlined in this section. Plats not illustrating or incorporating this data shall be returned to the subdivider for completion as required.
  - (2) The subdivider shall submit:
    - a. The inked original final plat drawn to a scale of one (1) inch equals one hundred (100) feet or other scale acceptable to the public works department, on linen or drafting film suitable for reproduction and recordation, on sheet size sixteen (16) inches by twenty-four (24) inches (minimum size) where possible, but not to exceed twenty-one (21) inches by thirty (30) inches maximum size; and
    - b. Sufficient copies of each as specified by the Development Services department.
- (b) *Contents of final plat.*
  - (1) The name of the subdivision and its location by municipality, township, county and state.
  - (2) The exact boundary lines of the tract to be subdivided fully dimensioned by bearings and distances, and the location of boundary lines and names of owners of adjoining lands, with adjacent subdivisions identified by official names. The boundary lines of the tract shall be tied in to the North Carolina grid system if within two thousand (2,000) feet of such markers or shall be tied into a permanent recognizable landmark as approved by the City engineer.
  - (3) Scale, denoted both graphically and numerically.
  - (4) Street names.
  - (5) The location, purpose and dimensions of areas to be used for purposes other than residential.
  - (6) The location and dimensions of all rights-of-way, utility or other easements, riding trails, natural or required buffers, pedestrian or bicycle paths and areas to be dedicated to public use, with the purpose of each stated. This must include all facilities developed as required by any adopted transportation plans, as referenced

in Sec. 18-386. Transportation Plans.

- (7) Existing buildings or other structures to be retained within the subdivision, in addition to property lines, corporate limits and county lines, both on the land to be subdivided and on the land immediately adjoining.
- (8) Sufficient engineering data to determine readily and reproduce on the ground every straight or curved boundary line, street line, right-of-way line and easement line, including dimensions, bearings or deflection angles, radii, chords, central angles and tangent distances for the centerline of curved streets and curved property lines, to an appropriate accuracy and in conformance with good surveying practice. All dimensions shall be measured to the nearest one-hundredth of a foot and all angles to the nearest minutes.
- (9) The accurate locations and descriptions of all monuments, markers and control points.
- (10) The blocks lettered consecutively throughout the entire subdivision and the lots numbered consecutively throughout each block.
- (11) Reference to recorded deed restrictions or similar covenants regarding the subdivision, if any. Copies of all such covenants shall be submitted to the public works department following recordation.
- (12) The date of the survey and plat preparation.
- (13) North arrow, noted whether true or magnetic.
- (14) The name and address of the owner, surveyor, land planner, architect, landscape architect or professional engineer responsible for the design of the subdivision, and the registration number and seal of the professional engineer or registered surveyor.
- (15) The minimum building flood line conforming to the 100-year flood line as delineated on the "Flood Boundary and Floodway Map, City of Wilmington."
- (16) Any additional information which may be requested by the City Manager or the subdivision review board or the Cape Fear Public Utility Authority that will facilitate the review.
- (17) The following certificates shall appear on the final plat and its copies:
  - a. Certificate of registration by the register of deeds of New Hanover County, unsigned.
  - b. Certificate of accuracy and mapping, signed and sealed.

- c. Certificate of ownership, dedication and jurisdiction, signed and with the corporate seal, if lawfully incorporated.
  - d. Certificate of approval by the subdivision review board, unsigned.
- (18) Accurate delineation of any jurisdictional wetlands as certified by the Army Corps of Engineers, delineation of any non-jurisdictional wetlands, conservation resources, areas of environmental concern (AEC's) and any associated buffers and setbacks.
- (c) *Required statements, certificates and forms.*
- (1) The following statements shall appear on the final plat, as applicable:
- a. Street (as specified in subsection 18-378(d)), utility and drainage maintenance disclosure statements signed by the owner and/or subdivider for private development.
  - b. All structures to be constructed, improved or rehabilitated within the area delineated as the 100-year flood area on the "Flood Boundary and Floodway Map, City of Wilmington," shall be constructed, improved or rehabilitated in conformance with the flood management regulations of the City of Wilmington.
  - c. All lots as depicted on the plat meet or exceed the minimum area and dimensional requirements of the zoning district in which located.
  - d. The availability of water and/or sewer service to the lots in this subdivision is subject to the completion of certain water and/or sewer line extensions, and certificates of occupancy will not be issued for structures on such lots until such extensions are completed and accepted.

(2) Certificate of registration by register of deeds:

State of North Carolina  
 County of New Hanover  
 Filed for registration on the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_ at  
 \_\_\_\_\_ (a.m./p.m.) and duly recorded in Map Book \_\_\_\_\_ at Page  
 \_\_\_\_\_.

\_\_\_\_\_  
 Register of Deeds

(3) Certificate of accuracy and mapping:

I, \_\_\_\_\_, certify that this map was (drawn by me) (drawn under my supervision) from (an actual survey made by me) (an actual survey made under my supervision); deed description in Book \_\_\_\_\_, Page \_\_\_\_\_, Book \_\_\_\_\_, Page \_\_\_\_\_, etc. (other); that the error of closure as calculated by latitudes and departures is 1: \_\_\_\_\_; that the boundaries not surveyed are shown as broken lines plotted from information found in Book \_\_\_\_\_, Page \_\_\_\_\_; that this map was prepared in accordance with G.S. section 47-30 as amended.

Witness my hand and seal this \_\_\_\_\_ day of \_\_\_\_\_ A.D., 20\_\_\_\_\_.

\_\_\_\_\_  
Surveyor

(4) Certificate of ownership and dedication:

I (we) hereby certify that I am (we are) the owner(s) of the property shown and described hereon and that I (we) hereby adopt this plan of a subdivision with my (our) own free consent, establish minimum setback lines, and dedicate all streets, alleys, walks, parks and other sites to public or private use as noted. I (we) hereby dedicate easements to the Cape Fear Public Utility Authority over all private streets for water and sewer lines and appurtenances. Further, I (we) certify the land as shown hereon is within the platting jurisdiction of the City of Wilmington, North Carolina.

\_\_\_\_\_  
Date

\_\_\_\_\_  
Owner

(5) Certificate of approval by the City of Wilmington Subdivision Review Board: The City of Wilmington, Subdivision Review Board, hereby approves for recordation the final plat for \_\_\_\_\_ subdivision provided that said final plat is recorded within ninety (90) days.

\_\_\_\_\_  
Chairman, Subdivision  
Review Board

\_\_\_\_\_  
Date

(6) Acknowledgement of compliance (private developments):

I, \_\_\_\_\_ (name of developer and/or seller), hereby certify that the

streets, parks, open space or other areas delineated hereon and dedicated to private use, and all traffic markings and control devices shall not be the responsibility of the public or the municipality, acting on behalf of the public, to maintain. Furthermore, prior to entering any agreement or any conveyance with any prospective buyer, I shall prepare and sign, and the buyer of the subject real estate shall receive and sign, an acknowledgement of receipt of a disclosure statement. The disclosure statement shall fully and completely disclose the private areas and include an explanation of the consequences and responsibility as to the maintenance of the private areas, and shall fully and accurately disclose the party or parties upon whom the responsibility for construction and maintenance of such private areas shall rest.

\_\_\_\_\_  
Date

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_  
Signature of Developer  
and/or Seller

(7) Recordation agreement form:

State of North Carolina

AGREEMENT

County of New Hanover  
\_\_\_\_\_

(a corporation organized under the laws of \_\_\_\_\_) hereby authorizes the City of Wilmington to record in the Office of the Register of Deeds, New Hanover County, that map of

\_\_\_\_\_

\_\_\_\_\_ subdivision as approved by the Subdivision Review Board on behalf of the City of Wilmington, North Carolina, at their meeting on the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_. This the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

\_\_\_\_\_  
BY: \_\_\_\_\_

TITLE: \_\_\_\_\_

ATTEST:\_\_\_\_\_

Secretary

Corporate Seal

- (8) Certificate of disclosure--North Carolina Coastal Area Management Act (CAMA), if applicable, to be signed by the owner:

I (we) hereby certify that prior to entering any agreement or any conveyance with a prospective buyer, I (we) shall prepare and sign, and the buyer of the subject real estate shall receive and sign a statement which fully and accurately discloses that the buyer may have responsibility to obtain a development permit (minor or major) and the agency to which an application must be filed in order to obtain said permit prior to any undertaking or activity subject to the requirements of the North Carolina Coastal Area Management Act.

\_\_\_\_\_  
Date

\_\_\_\_\_  
\_\_\_\_\_  
Signature of Owner(s)

- (9) Certificate of disclosure; City of Wilmington Floodplain Management Regulations, if applicable, to be signed by owner:

I (we) hereby certify that prior to entering any agreement or any conveyance with a prospective buyer, I (we) shall prepare and sign, and the buyer of the subject real estate shall receive and sign, a statement which fully and accurately discloses that the subject real estate, or a portion of the subject real estate, is located within a flood hazard area and that the buyer must satisfy the requirements of the City of Wilmington floodplain management regulations prior to the issuance of building permits.

\_\_\_\_\_  
Date

\_\_\_\_\_  
\_\_\_\_\_  
Signature of Owner(s)

- (10) Review Officer Certificate

MAP REVIEW OFFICER

I, <hr/> , review officer of New Hanover County, certify that the map or plat to which this certification is affixed meets all statutory requirements for recording. <hr/> _____ Map Review Officer _____ Date
--

(11) Certificate of approval by the Cape Fear Public Utility Authority:

The Cape Fear Public Utility Authority hereby approves for recordation the final plat for \_\_\_\_\_ subdivision.

\_\_\_\_\_  
 Authorized Official, Cape Fear Public Utility Authority

\_\_\_\_\_  
 Date

**Secs. 18-422--18-430. Reserved.**

### **DIVISION V. CLUSTER SUBDIVISION**

**Sec. 18-431. Purpose.**

Cluster development is a form of subdivision development for single family units that permits flexibility in dimensional requirements, such as reducing lot size and setbacks, in order to allow more flexible design than is permissible under the conventional subdivision process. Cluster development preserves natural open space and provides common open space for active and passive recreation use. Such subdivisions are allowed only in the R-20, R-15, R-10 and R-7 zoning districts.

The Cluster Development Option shall not be permitted for properties located within the boundaries of designated National Register or Local Historic Districts or the 1945 corporate limits.

**Sec. 18-432. Permitted uses.**

The uses allowed in each district as described elsewhere are allowed in the cluster option of the R-20, R-15, R-10 and R-7 with the following modifications:

*Housing Type*

- R-15: Single-family detached townhouses
- Single-family attached townhouses (maximum of four (4) units per structure)

R-10: Single-family residential, duplex  
Single-family detached townhouses  
Single-family attached townhouses (maximum of four (4) units per structure)

R-7: Single-family residential, duplex  
Single-family residential, triplex  
Single-family detached townhouses  
Single-family attached townhouses (maximum of four (4) units per structure)

(1) The following shall be permitted only on parcels of that certain size described below: dwellings, attached (including townhouses) or multi-family buildings, of up to twelve (12) units per structure. For purposes of this section 18-432(1), the twelve (12) unit allowance per structure shall only be permitted if that parcel upon which the structure is constructed is at least three hundred (300) acres, and parcels of less than three hundred (300) acres cannot be combined after January 1, 2009 to satisfy the three hundred (300) acre requirement.

Accessory apartments are only allowed with single family detached homes.

**Sec. 18-433. Development standards.**

(a) *Acreage Minimum.* The minimum site area for a cluster residential development shall be three (3) acres.

(b) *Density:* The net density of the development shall not exceed the following:

R-20: 2.2 u/ac  
R-15: 3.0 u/ac  
R-10: 4.4 u/ac  
R-7: 6.2 u/ac

Primary Conservation Areas, as defined below, which do not include CAMA designated areas of environmental concern (AECs) or areas of the floodplain, wetlands, streams, or natural ponds in which development is prohibited, may be included for calculation of net density.

Coastal Area Management Act (CAMA) resource protection areas: Residential units shall not be clustered at a density greater than two and one half (2.5) units per net tract acre in areas classified Conservation, or Resource Protection in the Wilmington-New Hanover CAMA plan, except if the standards for exceptional development, as listed in Article 10 of this chapter, are followed. When calculating the net density for a site that includes portions that are in Resource Protection or Conservation areas and portions that are outside those designated areas, the net density for the entire site is calculated by determining the number of allowed units for each portion separately and then summing the number of units permitted for each portion to determine the total number of allowed units for the entire site. For any portion of the site within the Conservation and Resource Protection areas, the maximum density of two and one-half (2.5) units per acre shall be used and for the portion of the site outside the Conservation and Resource

Protection areas, the maximum density for the underlying zoning district shall be used. This formula is used even when all or most of the development occurs on the areas outside the Conservation and Resource Protection areas due to the cluster design. To the extent that the development uses the standards for exceptionally designed projects as listed in Article 10 of this chapter, allowable density in Resource Protection areas may be allowed to increase up to the maximum allowed in the underlying zoning district as described in subsection (b) above.

(c) *Dimensional requirements.* The following alternative dimensional requirements may be followed instead of the standards outlined in each district of Article 5 of this chapter.

- (1) No minimum lot size.
- (2) No minimum lot width.
- (3) No structures within ten (10) feet of right-of-way. With respect to development zoned R-7 and utilizing the cluster subdivision regulations, no structures shall be permitted within five (5) feet of the right-of-way excluding fences, site walls, and steps (to dwelling units) not exceeding six (6) feet in width. In instances where a ten (10)-foot non-municipal easement is required, the structure setback from right-of-ways in all districts shall be no less than ten (10) feet.
- (4) Minimum roadway frontage per parcel, thirty (30) feet.
- (5) Minimum ten (10) feet between structures, or as required by the Building Code, whichever is greater.
- (6) Perimeter buffer of twenty-five (25) feet shall be maintained in a natural state except for hand clearing of underbrush. This buffer shall not count towards the open space requirements. Essential site improvements as governed in this Article, may encroach in this area. In the R-7 District, the twenty-five (25)-foot perimeter buffer may be waived when the adjoining zoning district is part of (1) the subject development and (2) contains compatible uses as determined by the Technical Review Committee.
- (7) Zero lot-line subdivisions are permitted under this option.
- (8) With respect to development zoned R-7 and utilizing the cluster subdivision regulations, all attached dwellings or multi-family buildings exceeding four (4) units per structure shall not be located within four-hundred (400) feet from existing residential uses or platted residential lots.
- (9) With respect to developments zoned R-7 and utilizing the cluster subdivision regulations, maximum height may be increased for attached or multi-family buildings, up to forty-five (45) feet, if the side and rear yard setbacks are increased an additional five (5) feet.

(d) *Primary Conservation Areas:* Each cluster development shall protect Primary Conservation Areas. Developments shall not disturb these areas. Primary Conservation Areas include:

- (1) All wetlands, natural lakes, ponds, rivers, creeks or marshes
- (2) All areas of Class IV soils as defined in "A Classification of Soils in New Hanover County for Septic Tank Suitability," which includes soil types designated in the "Soil Survey of New Hanover County" as Johnston (Jo), Dorovan (Do), Pamlico Muck (Pm), and Tidal muck (Tm)
- (3) Areas within the 100-year floodplain and floodways
- (4) Protected species habitat
- (5) A thirty-five (35) foot buffer around all natural ponds and wetlands and on both sides of streams measured from the top of the bank. When the required buffer is located on a stream or pond or wetland greater than five (5) acres, the buffer requirement may be met by providing an average buffer of thirty-five (35) feet, provided the following criteria are met:
  - a. Calculations are provided that show that the net buffer area provided is overall greater than would be achieved by a consistent thirty-five (35) foot buffer.
  - b. Wetland buffer areas may not be reduced to less than thirty-five (35) feet where the wetland narrows to a width of less than seventy-five (75) feet.
  - c. Buffer width of thirty-five (35) feet shall be maintained along each side of streams.
  - d. In no case may the buffer width be reduced to less than twenty (20) feet.
  - e. The buffer width may not be reduced along more than fifteen (15) percent of the perimeter of the wetlands.
- (6) Forested areas and significant tree clusters as defined in this chapter.
- (e) *The following disturbances may be allowed in primary conservation areas:*
  - (1) improvements that would either protect or enhance the enjoyment of the conservation area. Such measures not causing significant impact include, but are not limited to, walkways, self-guided trails, and protective fences.
  - (2) access to other parts of the parcel. If a part of the parcel may be developed but would be inaccessible due to the existence of a conservation area, a road and/or

utilities may be constructed through the conservation area. The road and/or utilities shall be designed to minimize the impact to the conservation area to the greatest extent practical.

- (3) access to the waterfront. If the entire waterfront along a parcel is inaccessible due to the existence of required conservation area, a boat ramp or pier may be built for boating facilities in the conservation area, subject to relevant state and federal permits. The facilities shall be designed to minimize impact to the conservation area to the greatest extent practical.

(f) If less than forty (40) percent of the total area is designated as Primary Conservation Area, then developments are subject to additional open space requirements as defined in this section to reach a total of forty (40) percent open space.

(g) *Open Space.*

- (1) A minimum of forty (40) percent of the total land area shall be reserved as common or public open space including, at minimum, all of the area delineated as Primary Conservation Areas.
- (2) No more than twenty-five (25) percent of that land reserved for common open space shall be improved for passive or active recreation. Such improved common open space must be located so that access is convenient to all residents of the cluster development. Improvements shall not be made that impact the resource intended to be protected in Primary Conservation Areas.
- (3) Storm water facilities that are not designed and maintained as amenities integrated into the improved common open space shall not count towards open space requirements.
- (4) Open space shall not be isolated in one (1) portion of a parcel. Open space shall be contiguous, with a minimum width of fifty (50) feet, and be directly accessible to the largest practicable number of lots. For developments over ten (10) acres, open space may be designated as separate, noncontiguous parcels, but no such parcel shall be less than one (1) acre nor have a length-to-width ratio greater than four to one (4:1) except for buffers or primary conservation areas. A green trails system shall connect all such noncontiguous open space. Primary Conservation Areas are not subject to this requirement as their location is predetermined through existing conditions.
- (5) Open space shall be permanently protected by conservation easement, protective covenants, or similar devices. Open space shall be in common ownership of a homeowners' association, which shall be required to maintain open space as governed by the subdivision regulations found in this Article.
- (6) Pedestrian access to open space shall be provided to all parcels without direct

access to open space.

- (7) Requirements of this section supersede the recreation space requirements of subsection 18-383(d) of this article.
- (8) Tree clusters and significant tree clusters (see definition section) may only be removed for essential site improvements as defined in Article 15 of this chapter.

(h) *Tree Protection:* In addition to the above standards, developments shall not "clear-cut" any areas designated as Open Space. A tree protection plan shall be required, including an aerial photograph, which demonstrates that the design of the cluster development satisfies the requirements of this chapter. Clearing and grading shall be limited to that necessary for essential site improvements. Trees shall not be removed from individual homesites until building permits are issued.

(i) *Circulation/Streets.* All lots within the cluster development shall face and be serviced by existing streets or new streets constructed within the cluster development boundaries. Lots shall not face on existing collector or arterial streets.

(j) *Existing Contours:* Site layout and development shall be conducted in a manner that retains existing contours to the maximum extent practicable and minimizes disturbance of soils and vegetation.

(Ord. No. 0-2006-107, § 1, 11-7-06)

**Secs. 18-434--18-445. Reserved.**