

**PLANNING STAFF REPORT**  
**MASTER DEVELOPMENT PLAN**  
**CARDINAL POINTE**

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**SUMMARY:**

**Hearing Date:** December 3, 2013

**Applicants:** Jeff and Nonie Morris

**Property Owners:** Jeff and Nonie Morris

**Case Number:** MDP 11067

**Development Proposal:** The applicant is requesting approval of a Master Development Plan for the Cardinal Pointe subdivision.

**Location and Land Use:** There are nine tracts associated with this request totaling approximately ±104 acres. The proposed project is located on the east side of Highway 17 just north of Sloop Point Loop Road (SR 1563) and adjacent to the former site of Topsail Greens Golf Course in Hampstead. The properties may be identified by PINs: 4204-95-5947-0000; 4204-96-0846-0000; 4214-13-6819-0000; 4214-14-7062-0000; 4204-95-2776-0000; 4214-13-2528-0000; 4204-94-9912-0000; 4214-23-2200-0000; and 4204-95-0573-0000.

**Zoning District of Property:** The property is zoned PD, Planned Development District.

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**HISTORY:**

Prior to 2008, seven of the nine tracts (composing ±84 acres of the proposed ±104 acres) were zoned R-20, while the remaining two tracts were zoned Planned Development (PD), (Pender County Zoning Ordinance 1988). In August of 2008, Stephen Carpenter, applicant, on behalf of Jeff Morris, owner, applied for a general use rezoning of the aforementioned tracts. In September 2008, the Pender County Board of Commissioners approved a Zoning Map Amendment to rezone these properties from R-20 to PD. Today, the northeastern portion of property is occupied by the Cardinal Acres mobile home park. There are approximately 60 structures that run the length of the property. The rest of the property to the south and east remains undeveloped. The application proposes closing the existing mobile home park and allowing the property to be redeveloped to the proposed plan.

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**DESCRIPTION OF PROPOSAL AND EVALUATION:**

Jeff and Nonie Morris, applicants and owners, are requesting the approval of a Master Development Plan for a 3-phase Mixed Use Subdivision. The request consists of developing 268 single family residential units on 51.3 acres, along with 117,612 square footage of commercial use, to be located on ±104 acres. The proposed project is located along the south side of US Highway 17 just north of Sloop Point Loop Road (SR 1563) and adjacent to the former site of the Topsail Greens Golf Course in Hampstead. The subdivision is envisioned to be developed in three phases. The first phase will include the development of 63 homes on the western third of the property (closest to Highway 17), along with the development of a community waste water system planned for the eastern most portion of the property. Phase 2 will include the development of the center portion of the property, building 133 homes, and Phase 3 will develop the remaining property, building 72 homes.

**Project Density:** The Pender County Unified Development Ordinance §4.8.1 calculates residential density by subtracting areas reserved as non-residential development, wetlands, rights of way and parking areas, and active and passive open space (if different from wetlands) from the total acreage of the tract. By that calculation, the net density for Cardinal Pointe is 5.22. However, in this case, the application is proposing more active open space than is required by 1.5 acres. Therefore, 1.5 acres was added to the residential acreage total (51.3) to determine a residential density of 5.08. The table to the right outlines the proposed acreage and density calculations.

<b>Cardinal Pointe Residential Density</b>	
Total Acreage	104.0
Non-Residential Acreage	11.3
Wetlands Acreage	14.5
Right-of-Way Acreage	21.4
Open Space Acreage	20.0
Active	(5.5)
Passive	(14.5)
<i>Developable Land (Residential)</i>	51.3
<i>Non-required Active Open Space</i>	1.5
<b><i>Total Developable Land (Residential)</i></b>	<b>52.8</b>
Total Units	268.0
<b><i>Net Density</i></b>	<b>5.08</b>

**STAFF COMMENT:** With a net density of 5.08 units per acre, Cardinal Pointe, as proposed, does not meet the UDO density limit of 5.0 as set forth in UDO §4.8.1, *Planned Development District*. The applicant will need to decrease the number of proposed lots to 263 or less to meet the required 5.0 density limit.

**Lot Requirements:** As outlined in UDO §4.8.1.D, the MDP establishes the required lots sizes, yard setbacks, and building height. The applicant is proposing a maximum total of 268 single family residential lots, with a minimum lot size of 6,500 ft<sup>2</sup> and a maximum height of 35 ft. The table to the right shows the proposed yard setbacks.

<b>Setback Type</b>	<b>Setback Feet</b>
Front	25 feet
Side	5 feet
Rear	10 feet
Corner	10 feet

**Water/Waste Water:** The applicant is proposing to treat wastewater on site through a collection system designed to meet the needs of the entire subdivision. The system is planned to be placed on the eastern side of the property and completed in Phase I. The applicant is proposing to conduct the soil evaluation and testing after the master plan is approved. At this time, the applicant is considering a wastewater system that will include secondary treatment of the effluent with surface disposal. The project has proposed connection to Pender County Public Water System; subject to review and approval by Pender County Utilities.

**STAFF COMMENT:** In Pender County, all dimensional lots under 12,000 square feet require community or public waste water disposal and water service (§7.8.1, *Water/Sewer Requirements and Connections*). In conjunction with a MDP, sewage treatment facilities must only provide service within the boundary of the approved MDP and they must be completed in Phase I of the development (§5.3.6, *Sewage Treatment Facilities*). Both of these requirements are fulfilled by the current proposal.

However, while the proposal commits to developing a community system, the current proposal does not provide guidance as to capacity or type of wastewater system that will be constructed, nor does it show the approximate location of sewer and water mains, and sewage disposal, per the requirements of UDO §6.1.4.A.8, *MDP Contents – Mixed Use Districts*. Since “any changes to a Sewage Treatment Facility approved in conjunction with a MDP will require Administrator evaluation...including enlarging the footprint or building size, increasing capacity, or increasing in area to be serviced”, if the MDP is approved,

Administrator approval of the Sewage Treatment Facility measurements and calculations will be necessary when the applicant submits those requirements (§5.3.6, *Sewage Treatment Facilities*).

**Open Space:** Currently 20 acres of open space are provided in this proposal with 14.5 acres to be dedicated as passive open space and 5.5 acres to be dedicated as active open space, which meets and exceeds the open space requirements set forth in UDO § 7.6.1 C, *Open Space Requirements*. The applicant is also proposing to make \$30,000 of recreational improvements, or pay Pender County the difference through a payment in lieu of installation.

Dwelling Units	Recreational Unit(s)	Financial Unit
251-300	3.0	\$30,000

**STAFF COMMENT:** The MDP correctly reflects the number of recreational units required, but the design and amount of facilities are to be approved by the Planning Board, Administrator, and Parks and Recreation representative to the TRC at the time of Master Plan approval (§7.6.2, *Recreational Units*.) In this case, the MDP does not provide this information.

Further, while the MDP dedicates enough acreage to meet the open space requirement, it does not differentiate between active and passive open space on the provided maps. Calculated open space requirements should be provided with the MDP (§6.1.4, *MDP Contents*). Along with their delineation, the provided active open space should also demonstrate compliance with the standards set forth in §7.6.1.E, *Standards for Park, Recreation, and Open Space Areas*, with respect to unity, location, and accessibility (§7.6.1.E).

**Road Layout and Construction:** The MDP is proposing all roads except the entrance and exit roads to be dedicated private. All roads are proposed to meet or exceed NCDOT standards except with regards to road radiuses. All other planned construction, geometry and layout of the roads are proposed to comply with NCDOT Subdivision Roads Minimum Construction Standards. The estimated number of daily trips created by this development at build out is estimated by the applicant to be approximately 1,608.

**STAFF COMMENT:** Street Layout and access within an MDP shall conform to Section 7.4, Access and Section 7.5, Street Design, as provided in the UDO (§ 6.1.4.A.24). Section 7.5 requires all private streets to be designed and constructed in compliance with the current NCDOT Subdivision Roads Minimum Construction Standards (§7.5.3.A, *Private Streets*.) The Planning Board may approve, “variations to right-of-way widths and geometric design,” in an MDP, otherwise the roads must be improved to meet NCDOT standards.

The applicant concedes that the road radiuses are not to NCDOT standards. Other standards such as cul-de-sac radiuses, required pavement width, required street separations, and width of the proposed traffic circle also do not appear to meet NCDOT standards. These issues will all need to be addressed to meet Pender County requirements.

Further, subdivisions with private streets are to be built to collector street standards “when any street in the subdivision has the potential to serve more than 200 residential or commercial units” (§7.5.3.C.2). With a proposal of 268 units, the MDP, at a minimum, will need to construct Levi and Jill Drives to collector street standards.

The UDO also requires local residential street intersections to be directly aligned (§7.5.3.C). If they cannot be aligned, they shall be offset centerline to centerline by not less than 125 feet (§ 7.5.3.C). In this case, the

proposed Adam and Eve drives need to be aligned to meet Ordinance requirements. Sight triangles as required in the NCDOT Secondary Roads Standards also need to be provided at all street intersections (§7.5.1.H).

Finally, while the applicant provides the estimated number of trips at build out, estimated AM and PM Peak Hour Trips are not provided (§6.1.4.14).

**Street Connectivity and Access:** Access to the development is proposed off of Highway 17 in two locations. Both of these roads are proposed to be built to NCDOT standards and dedicated public, until they reach Cardinal Drive, at which point the roads will be dedicated private. Access is also provided to Topsail Greens Drive on the northwestern boundary of the property, and a future connection is proposed to allow connectivity to Topsail Greens Drive on the southeastern side of the development. The interior road networks are proposed to be constructed to NCDOT standards, dedicated private, with varying right-of-way widths.

**STAFF COMMENT:** Along with demonstrating a safe and adequate transportation system, MDPs are to demonstrate that the “on-site transportation system will be integrated with the off-site transportation circulation system of the County (§4.8.1.D.8, *Transportation and Circulation System*). Moreover, the layout of the streets as to arrangement, width, grade, character, and location is to conform to the adjoining street systems, as well as existing, planned and proposed streets (§7.5.1.A). Reasonable access will be provided to adjacent property for development (§7.5.1.A).

As, proposed, access to Cardinal Pointe is provided in the following locations:

- The main access to the property is provided from two access points off Highway 17 on the west side of the property. Of concern, however, is that one of the proposed connections to Highway 17 is in the Unnumbered A, meaning that, depending on the Base Flood Elevation, flooding is a possibility at this access point.
- Collector Road “A” provides a potential third access point, connecting the development to Topsail Greens Drive. However, it is worth noting that Topsail Greens Drive is a private road, and therefore, at any time, the Topsail Greens HOA could block access to the Cardinal Pointe neighborhood, rendering the access point moot.
- The proposed Collector Road “D” leads to the vacant tract, known as the Westbrook property.
- Finally, the MDP has two stubs on the east side of the property, however, neither are proposed to connect to any existing or proposed roads, meaning all proposed access to the one mile long property is located solely on the western side. At the Planning Board meeting on November 12, 2013, the Planning Board conditioned approval of the adjoining “Oaks at Sloop Point” subdivision on a public road connection to Cardinal Pointe. To honor that condition, an access point on the eastern portion of the property will be necessary.

The Pender County Comprehensive Land Use Plan encourages vehicular and pedestrian interconnectivity to existing or planned adjacent sites and adjoining development (Policy 2B.1.4). It also recommends that these streets be dedicated public to promote interconnectivity. Per Policy 2B.1.9 of the Plan, “all new streets that have the potential to connect to adjacent developments should be constructed to NCDOT secondary road standards and accepted for public maintenance to ensure future connectivity.”

The proposed walking trails do help with connectivity throughout the development, however, the trails connect to the roadway system and since the roads as proposed do not have sidewalks, walking on the streets would be necessary to utilize the walking trail system.

**Landscaping and Buffers:** All project boundaries adjacent to residential lots are proposed to have a B-1 Buffer, specifically a 10 foot buffer with 3 canopy trees, 4 understory trees, and grass cover of at least 98% coverage, per 100 linear feet. Whereas, property boundaries along road frontages on existing state maintained roadways are proposed to have a Buffer Type A-4, specifically, a 30 foot wide strip with 1 canopy tree, 2 understory trees, and either a grass or other vegetative cover of at least 98% coverage, or 32 shrubs per 100 linear feet.

**STAFF COMMENT:** Buffers are not shown on the maps for the entire MDP; also the MDP proposes Buffer B on several of the outer edges. However, the UDO requires Buffer A along boundaries adjacent to a street (§8.2.8, *Project Boundary Buffer*). Therefore the MDP will need to be corrected to reflect the correct buffering type in several instances as the property is bound by Topsail Greens Drive on the southern portion of the property.

**Environmental Issues:** The ±104 acre Master Plan Boundary contains portions of environmentally sensitive areas including wetlands. On the MDP, the wetlands on the tracts have been estimated and the application notes that the wetlands will be delineated after preliminary approval.

**STAFF COMMENT:** Section 6.1.4, *MDP Contents*, requires a conceptual plan for stormwater management as well as a description and location all stormwater facilities designed to serve more than one parcel. The MDP envisions “ponds...to be located in the planned open areas” while the “planned roads will act as a conduit to capture and convey the stormwater runoff towards the ponds” (Engineer’s narrative). However, the proposed pond locations on the maps do not seem to convey a true conceptual stormwater system plan.

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## PROJECT COMPLIANCE

### A. Zoning Compliance:

These tracts are all zoned PD, Planned Development district. Per §4.8.1 of the Pender County UDO:

“The intent of the Planned Development (PD) District is to provide an alternative to a conventional development. The PD zoning districts allow projects of innovative design and layout that would not otherwise be permitted under this Ordinance because of the strict application of zoning district or general development standards. The PD District encourages progressive land planning and design concepts.”

“In return for greater flexibility in site design requirements, planned developments are expected to deliver exceptional quality community designs that preserve critical environmental resources, provide above-average open space amenities, incorporate creative design in the layout

of buildings, open space and circulation; assure compatibility with surrounding land uses and neighborhood character; and provide greater efficiency in the layout and provision of roads, utilities, and other infrastructure.”

“The PD District shall not be used as a means of circumventing the county’s adopted land development regulations for routine developments.”

The entire section of the Ordinance is included in the Appendix for your review.

**STAFF COMMENT:** The Cardinal Pointe development is compatible with the surrounding land uses and neighborhood character; however, more adequate connectivity and use of creative open space would be desirable.

**B. 2010 Comprehensive Land Use Compliance:**

These tracts are all designated as Mixed Use. The Mixed Use classification is intended for higher density/intensity uses, as well as a “mixture of commercial, office, institutional, and high- and medium-density residential uses, arranged in a walkable, compact, pedestrian and transit friendly manner.” Specific policies addressing interconnectivity include.

**Policy 2B.1.7** Ensure that the Coastal Pender Collector Street Plan, adopted on May 21, 2007, is used consistently when reviewing and approving new development proposals within the Hampstead and Scotts Hill areas of the County. Consider applying Plan recommendations for roadway connectivity to all new developments countywide.

**Policy 2B.1.9** As recommended in the Coastal Pender Collector Street Plan, all new streets that have the potential to connect to adjacent developments should be constructed to NCDOT secondary road standards and accepted for public maintenance to ensure future connectivity.

**STAFF COMMENT:** Cardinal Pointe is a very high density development with planned commercial development on site, which meets the intent of the Mixed Use classification. However, more interconnectivity and pedestrian improvements would be desirable.

**C. Surrounding Land Uses:**

The properties to the west and south of these properties are zoned PD. The properties to the North and East are zoned RP, Residential Performance.

To the west, Cardinal Pointe is bounded by Highway 17. The property to the south is developed with single family homes, in the Subdivision known as Topsail Greens, and a hole from the old golf course previously associated with that Subdivision, borders the property to the southwest. The property to the east is undeveloped, forested land, as is the tract to the north of the property.

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**TECHNICAL REVIEW COMMITTEE (TRC) RESPONSES:****Cape Fear Council of Governments RPO**

*The Cape Fear RPO has no comment.*

**NC DENR Division of Water Quality**

*The existing Cardinal Acres project mentioned in the narrative is currently permitted to Mr. Morris under SW8 050122 for a 15 lot low density subdivision. There would be no option to “redevelop” that project as an exclusion to the rules, but there is an option to modify or rescind that permit if that development will be encompassed or modified by the proposed Cardinal Pointe development.*

*The consultant has planned for the stormwater, but there are no specific measures or drainage areas or calculations available for review until the sewer / septic situation is resolved. Needless to say, a stormwater permit will be required, but it looks like it will be well into next year before we see an application.*

**NC DOT Division of Highways**

*We have had no contact concerning this subdivision. Driveway permit will be required, Doug Racine is the contact person, 910-346-2040.*

**Pender County Addressing Coordinator**

*The following names are acceptable: Levi, Eve, Adam, Jill, and Midway. One road name starting with Cardinal is acceptable but not three.*

**Pender County Emergency Management**

- 1. NCFC 505.1-Streets and roads shall be identified with approved signs. Temporary signs shall be installed at each street intersection when construction of new roadways allows passage by vehicles. Signs shall be of an approved size, weather resistant and be maintained until replaced by permanent signs. (Note for project)*
- 2. NCFC Section C105-Fire Hydrants shall be placed with average spacing of 500 ft. (Note for project)*
- 3. NCFC Section 103.4-Dead end in excess of 150 ft shall have a dead end fire apparatus access roads turn around. (South East Private Access to sewage treatment plant)*
- 4. Cul-de-sac shall be 96’ across (All circle turn around at dead end with a turning radius entering the cul-de-sac of 28’ min)*
- 5. All turns shall have a min. turning radius of 28’ min (C22 C23, C39, C40, C41, C2, C43, C44, C50, C51, C53, C58, C63, C64, C65, C66, C121, C151, & C149.*
- 6. NCFC Section D107-One or Two Family developments where the number of dwelling units exceeds 30 shall have two access roads or connect with future development. (Access to Topsail Greens Drive is a must on this project in phase 3).*

**Pender County Flood Plain Management**

*Any SFHA boundary will need to delineated. In addition, if open space is being dedicated in lieu of providing the study for the Approximate A SFHA; those areas and area size will need to be shown on the plat.*

**Pender County Parks and Recreation**

*Parks and Recreation has no issues with this request.*

**US Army Corps of Engineers**

*Thanks for the opportunity to review this project. A jurisdictional determination for this site is currently pending and no permit has been issued, nor permit request been submitted to date.*

**Wilmington Metropolitan Planning Organization**

1. *The submitted Trip Generation numbers for the project do not appear to be in accordance with the ITE Trip Generation manual. Although the project has projected 268 homes, the submitted Trip generation numbers are less than the adjacent Oaks at Sloop Point project, which has 185 single family homes.*
2. *Many subdivision streets are not in accordance to the minimum Pender County UDO standards and NCDOT Subdivision Roads Minimum Construction Standards, including minimum CL for Curves on subdivision roads, minimum distance between Centerlines of Intersecting Streets, , and minimum Right-of Way for a Public Street for Cardinal Circle.*
3. *Applicant must remove the offset of the centerline for Adam Dr and Eve Drive.*
4. *The applicant has created an unsafe condition with the minimum distance between centerline of intersections on opposite streets, (dog-leg). The dog-leg between Amanda Lane and Connector Road "A" and Amanda Lane and Cardinal Pointe Drive are both less than 90'. The submitted design has 2 dog-legs and attempts to connect 4 streets and a traffic circle within 200'.*
5. *The applicant shows a walking trail on the site plan, however, no internal or public sidewalks are provided.*
6. *Applicant does not show sufficient access or connectivity to adjacent development such as the Oaks at Sloop Point.*

**No response:** Four County Electric Company  
 NC DENR Division of Coastal Management  
 NC DENR Division of Forestry  
 NCDENR Division of Energy, Mineral, and Land Resources  
 NC DENR Division of Waste Management  
 NC DOT Transportation Planning Branch  
 NC Office of State Archaeology  
 NC Wildlife Resources Commission  
 Pender County Building Inspections  
 Pender County Environmental Health  
 Pender County Public Library  
 Pender County Public Utilities  
 Pender County Schools  
 Pender County Sheriff's Department  
 Pender County Soil and Water Conservation District  
 Progress Energy Corporation

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**STAFF RECOMMENDATION:**

Planning Staff is submitting this proposal for Planning Board disposition. Staff notes the following outstanding Ordinance items:

1. Density must be reduced to 5.0 or below (§4.8.1.c.).
2. The approximate location of sewer and water mains, and sewage disposal must be shown. (§ 6.1.4.A.8). Once MDP approval is granted, any changes to the proposed Sewage Treatment Facility will need approval from the Administrator (§5.3.6).
3. Street Layout and Access:
  - a. All road must be constructed to meet NCDOT standards (§7.5.3)

- b. The layout of the streets as to arrangement, width, grade, character, and location must conform to the adjoining street systems, as well as existing, planned and proposed streets (§7.5.1.A).
  - c. Adam and Eve Drives should be directly aligned (§7.5.1.C).
  - d. Sight triangles as required in the NCDOT Secondary Roads Standards need to be provided at all street intersections (§7.5.1.H).
  - e. Levi and Jill Drives must be dedicated public and built to collector street standards (§7.5.3.C.2).
  - f. Estimated AM and PM Peak Hour Trips must be provided (§6.1.4.14.)
  - g. A connection to the recently approved “The Oaks at Sloop Point” subdivision is required, per the Planning Board conditioned approval for that subdivision.
4. Buffers need to meet ordinance requirements and be delineated on all outside boundaries of the MDP (§6.1.4.A.11 and §8.2.8).
  5. The design and amount of recreational facilities need to be shown on the MDP (§7.6.2).
  6. The active open space needs to be identified and meet the standards of §7.6.1.E, including unity, shape, location, access.
  7. The unnumbered A SFHA on the MDP must be delineated.

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**APPENDIX:**

**4.8.1 PD: Planned Development District**

Intent - The intent of the Planned Development (PD) District is to provide an alternative to a conventional development. The PD zoning districts allow projects of innovative design and layout that would not otherwise be permitted under this Ordinance because of the strict application of zoning district or general development standards. The PD District encourages progressive land planning and design concepts. Some of these techniques and concepts include but are not limited to:

- 1) To preserve in perpetuity unique or sensitive natural resources such as groundwater, floodplains, wetlands, streams, steep slopes, woodlands and wildlife habitat.
- 2) To protect prime agricultural land and preserve farming as an economic activity.
- 3) To permit clustering of houses and structures in a manner that will reduce the amount of infrastructure, including paved surfaces and utility easements, necessary for residential development.
- 4) To reduce erosion and sedimentation by minimizing land disturbance and removal of vegetation in residential development.
- 5) To protect scenic views.
- 6) To promote interconnected greenways and corridors throughout the County.
- 7) To create contiguous green space within and adjoining the development site.
- 8) To preserve important historic and archaeological sites.

A. General Intent/Purposes of the PD District

- 1) Allowing greater freedom in providing a mix of land uses in the same development, including a mix of housing types, housing prices, lot sizes, densities, and non-residential uses in a planned development;
- 2) Promoting quality urban design and environmentally sensitive development by allowing development to take advantage of special site characteristics, locations, and land uses;
- 3) Encouraging quality urban design and environmentally sensitive development by allowing increases in base densities when such increases can be justified by superior design or the provision of additional amenities such as public and/or private open space.
- 4) In return for greater flexibility in site design requirements, planned developments are expected to deliver exceptional quality community designs that preserve critical environmental resources, provide above-average open space amenities, incorporate creative design in the layout of buildings, open space and circulation; assure compatibility with surrounding land uses and neighborhood character; and provide greater efficiency in the layout and provision of roads, utilities, and other infrastructure.
- 5) The PD District shall not be used as a means of circumventing the county's adopted land development regulations for routine developments.

**B. General Use**

- 1) **Uses Allowed and Size** - A planned development may contain any or all of the uses specified in the table of uses and in accordance with a master plan, provided such uses are consistent with the Table of Uses in Section 5.2 and the Comprehensive Plan. In order to develop under the PD District a minimum of two types of uses will be required. This must be a mix of residential and non-residential uses. Mixed use development may occur by having two or more principal uses located in the same building (e.g., retail on ground floor, office space above) or by having two or more principal uses located in different buildings sited on the same lot or parcel (e.g., freestanding child day care center located on the same parcel as an office building).

**C. Number of Dwelling Units (Density)**

- 1) **Determination** - The number of dwelling units in a project utilizing the PD development standards shall be a maximum of 5 units per net density. The density is calculated as total tract acreage subtracting the following:
  - a) Areas reserved as non-residential development
  - b) Total wetland calculations
  - c) Rights of way and parking areas
  - d) Active and Passive open space
    - i) Passive open space may be subtracted out of the total wetland delineation at time of Master Plan if calculated to be less than total wetland area.

**D. Development Standards** - Development in a PD District shall be subject to all applicable regulations unless otherwise waived or modified by the County in the terms of the approved master land use plan. In no case shall the decision-making body waive or modify the following standards for a proposed PD District:

- 1) Stream buffers required by the State of NC
- 2) Ownership requirements for any open space, buffers, or streetscapes unless otherwise permitted within this Ordinance;
- 3) Preservation of existing vegetation in streetscapes, floodplains, and/or buffers;

- 4) The minimum lot width and minimum yard requirements are established with the Master Plan may be modified by the Planning Board through the PD process however; the minimum distance between structures shall be as required by NC Building Code.
- 5) Street connectivity requirements;
- 6) Sidewalk and greenway requirements;
- 7) Stormwater control or LID requirements;
- 8) Transportation and Circulation System. The planned development's master plan shall demonstrate a safe and adequate on-site transportation system that addresses vehicular, bicycle, transit and pedestrian circulation. The on-site transportation system shall be integrated with the off-site transportation circulation system of the County.
  - a) Creative design of circulation routes and traffic ways is encouraged. A base characteristic of a PD is that the internal circulation routes or streets do not follow fixed linear geometric lines as do most streets. Instead, circulation routes are curvilinear and of meandering character, to preserve tree and landscape features. Slower-paced traffic movements and private restrictions for extremely low speed limits.
  - b) Pedestrian-oriented communities also are encouraged to enhance the quantity of pedestrian activity and to improve the quality of the pedestrian experience. Planned subdivisions must adhere to the design standards for drainage and paving in this Ordinance.
  - c) Where the development is bound by two (2) or more NC DOT on-system roads, at minimum access to each road shall be provided.
  - d) Adequately constructed and maintained bike and/or hiking trails shall be counted toward the open space requirement. Bicycle lanes and multi-use pathways that extend the minimum right-of-way width shall be designed in accordance with the North Carolina Bicycle Facilities Planning and Design Guidelines Manual.