

**PLANNING STAFF REPORT
PRELIMINARY PLAT PHASE ONE
THE OAKS at SLOOP POINT**

SUMMARY:

Hearing Date: March 4, 2014

Applicant: Signature Pender County NC, LP

Property Owner: First Federal Bank

Case Number: Preliminary Plat 11035

Development Proposal: Signature Pender County NC, LP applicant, on behalf of First Federal Bank, owner, is requesting Preliminary Plat approval for Phase One of the approved Master Development Plan for The Oaks at Sloop Point. Phase One (1) includes forty-two (42) single family homes on approximately 25.58 acres. On November 12, 2013 the Planning Board conditionally approved a Master Development Plan for The Oaks at Sloop Point.

Property Record Number, Acreage, and Location: Phase One (1) consists of approximately 25.58 acres, of the overall 143.62 acres in the total Master Development Plan, The Oaks at Sloop Point, which utilizes the former Topsail Greens Golf Course. The proposed development is located to the north of Doral Drive (SR 1693), northwest of Sloop Point Loop Road (SR 1563), south of the approved Cardinal Pointe subdivision and east of US Highway 17 in Hampstead. The subject property may be further identified by PIN 4214-12-8251-0000. The property is zoned PD, Planned Development District.

RECOMMENDATION

The request is consistent with the 2010 Pender County Comprehensive Land Use Plan and Pender County Unified Development Ordinance; therefore planning staff recommends the approval of the Preliminary Plat for Phase One (1) of The Oaks at Sloop Point. Any and all future development, phases or changes to the Master Development Plan are subject to the Planning Board review and approval.

HISTORY

The subject property was previously known as the Topsail Greens Golf Course as recorded in the Pender County Register of Deeds on August 21, 1975 (Map Book 16, Page 73). The property was zoned PD, Planned Development from the adoption of zoning in Pender County (Pender County Zoning Ordinance 1988). On November 12, 2013 the Pender County Planning Board approved the Master Development Plan (Attachment 1) titled The Oaks at Sloop Point.

APPROVED MASTER DEVELOPMENT PLAN

In total, The Oaks at Sloop Point will be developed in three (3) phases for a maximum of 185 single family residential lots. Approximately 58,370 square feet of non-residential development was approved in the Master Development Plan per the PD, Planned Development zoning district requirements. Net density of the approved project was approved at 2.72 units per acre, all other density

calculations for each Phase are required to meet Pender County Unified Development Ordinance Standards.

Lot Requirements

As outlined in the Unified Development Ordinance, Section 4.8.1.D the Master Development Plan established the required lots sizes, yard setbacks, and building height. The applicant was approved for a minimum lot size of 12,000 square feet with a maximum building height of thirty-eight (38) feet and the following proposed yard setbacks:

Setback	Distance
Front	20 feet
Side	10 feet
Rear	20 feet
Corner	15 feet

Services (Wastewater/Water)

The Oaks at Sloop Point Master Development Plan was approved with traditional on-site septic which is contingent upon their submitted soil suitability analysis; subject to review and approval by the Pender County Environmental Health Department prior to Final Preliminary Plat approval.

Additionally, a public water connection to Pender County Utilities was proposed at the time of Master Development Plan submittal. Currently, the applicant has submitted necessary items to Pender County Utilities for review and approval. In conversations with Pender County Utilities staff, the applicant will likely be required to connect waterlines with existing waterlines such that these connections mirror street interconnectivity between the surrounding residential neighborhoods.

Planning Board Conditions of Master Development Plan Approval

At the November 12, 2013 Public Hearing for the Master Development Plan for The Oaks at Sloop Point the following conditions were required of all phases of the development:

1. Provide connection to adjacent property for future development to the northwest of the subject property (documented under case #11067 Cardinal Acres, as submitted to Planning Board in December 2013);
2. Provide connection to identified “Capstone Property” identified by Pender County PIN 4214-22-7567-0000;
3. Allow for “alternative” design for alleyway as shown on Master Development Plan submittal page C-3.4; and
4. Allow for emergency access along the connection to Doral Drive (SR 1693).

PHASE ONE PRELIMINARY PLAT ASSESSMENT

The Preliminary Plat for Phase One (1) of The Oaks at Sloop Point includes forty-two (42) single family homes of the approved 185 total for the Master Development Plan. This portion of the project will access directly off Sloop Point Road (SR 1563) on the southern portion of the tract. As the aforementioned Master Development Plan was approved by the Planning Board in November 2013, the following assessment includes only items that are specific to Phase One (1) of the development.

Landscaping & Buffers

All landscape and buffers in the Phase One (1) submittal for Preliminary Plat are in accordance with Section 8.2.8, *Project Boundary Buffer* of the Pender County Unified Development Ordinance. In multi-family and Planned Developments the following buffers are required; a Buffer A is required along all boundaries adjacent to a street and a Buffer C is required along all boundaries adjacent to single family residential uses or residential lots with a parcel size of less than one (1) acre and when a single family structure is within fifty (50) feet of the boundary of the development. The applicant submitted a C-1 Buffer with a six (6) foot tall fence will be used along the northern and southern project boundaries and Buffer A adjacent to Sloop Point Road (SR 1563). No buffer is required between Phase One (1) and the future development along the western border. Specific buffer requirements from Section 8.2.8 can be viewed in the Appendix.

Open Space

Per the Pender County Unified Development Ordinance, all proposed residential subdivisions shall provide open space in the amount of 0.03 acres per dwelling unit within the subdivision; half of which must be designated active open space. The applicant meets the required open space requirements for Phase One (1) Preliminary Plat. As there are forty-two (42) lots proposed, 1.26 acres is required open space with 0.63 acres which must be active.

With a proposed lot number of ninety-five (95), \$10,000 or 1 recreational unit is required by Pender County Unified Development Ordinance for the Master Development Plan. This will need to be completed prior to Final Preliminary Plat approval. It is the developers' intention to utilize the recreational unit and apply toward off-site bicycle and pedestrian connections to service Kiwanis Park. Staff is currently working with the Wilmington Metropolitan Planning Organization (WMPO) and the developer to facilitate this proposal. If this proposal is unsuccessful staff will work with both the Planning Board and the developer to ensure compliance with this open space requirement. This proposed facility will intend to connect Doral Drive and Hampstead Kiwanis Park with a bicycle and pedestrian path in the reserved NCDOT right of way; a preliminary proposal as well as the Safe Routes to School project area can be seen in Attachment 2 and 3.

Connectivity & Road Design

According to the applicant's narrative the roadways are proposed as public and built to NCDOT subdivision road standards as outlined in the NCDOT Subdivision Manual published in January 2010. There are thirty-nine (39) homes to access off these public roadways. These roadways are subject to NCDOT review and approval through a Driveway Permit, the applicant must submit plans to the NCDOT for approval prior to Pender County approval of this Preliminary Plat submission.

The one cul-de-sac proposed in this Phase I of the Oaks at Sloop Point conforms to the Pender County Unified Development Ordinance requirement in Section 7.5.1.F. where a minimum shoulder section right of way paved at thirty-five (35) feet is required, all other approvals of this cul-de sac are subject to NCDOT requirements.

Additionally, an "alternative" design for alleyway as shown on Master Development Plan submittal page C-3.4 which was approved by the Pender County Planning Board on November 12, 2013. The "alternative" design alleyway is a thirty (30) foot access easement to be recorded with the Preliminary Plat for Phase I. This alleyway will serve as access for the additional three (3) lots. This approved right of way will be sixteen (16) feet wide with two (2) inches of asphalt and six (6) inch of ABC stone.

Traffic

According to the submitted narrative traffic impacts proposed will be minimal based on a calculated using the ITE Trip Generation Manual 8th Edition for a 210 single family home development; 402 daily trips with 32 in the AM peak hour and 42 in the PM peak hour. Phase I traffic was not specifically mentioned in the narrative however, in the review and approval of submitted plans the NCDOT may have additional requirements for this subdivision.

Density

The Master Development Plan for the Oaks at Sloop Point was approved with a density of 2.72 units per acre, Phase I proposes a density of 1.6 units per acre. This is calculated using the total 26.25 acres in Phase I, with the forty-two (42) lots and 1.26 acres of open space. As the required density for a PD, Planned Development Zoning district requires a density of less than five (5) units per acre, per Section 4.8.1.C.1. This is in accordance with PD, Planned Development zoning district requirements.

Environmental Concerns

The Master Development total tract of approximately 143 acres contains portions of environmentally sensitive areas including wetlands and floodplains.

There are approximately 3.24 acres of wetlands on the Master Development Plan subject property, as shown on a wetland declination submitted to the Army Corps of Engineers, subject to review and approval. Any development within these areas may be subject to the permit requirements of Section 404 of the Clean Water Act.

There is a portion of the subject property that is located within the "Approximate Zone A" Special Flood Hazard Area, according to the 2007 Flood Insurance Rate Maps (FIRMs), Map Number 3720420400J, Panel Number 4204 however, this is not located in the Phase I boundary area. Any subsequent Preliminary Plat approvals including the "Approximate Zone A" portion of the property will require a flood study be submitted and approved as required in the Pender County Unified Development Ordinance Section 9.5.3 prior to any development occurring on the site. This study would be required prior to final Plat

After a preliminary analysis, it appears no CAMA Areas of Environmental Concern are located on the project site. CAMA Areas of Environmental Concern are tidal and/or navigable waters within Pender County are classified as Public Trust Area up to the normal high water line or normal water level and are subject to the CAMA. The Public Trust Shoreline AEC extends 30' landward of the normal high water line or normal water level.

The PD, Planned Development zoning district requires a tree survey to be submitted prior to the Final Preliminary Plat approval. All applicable state and federal agency permits including a Stormwater Management Permit, Sediment and Erosion Control Plan, wetlands impact permits, and NCDOT Driveway Permit will be required prior to the approval of the Final Preliminary Plat.

TECHNICAL REVIEW COMMITTEE (TRC) RESPONSES:

On Friday February 18, 2014 the Pender County Technical Review Committee was sent the application, narrative and Master Development Plan for The Oaks at Sloop Point Phase I. The following responses were collected:

Cape Fear Council of Governments RPO

Cape Fear RPO has no comment since the project is in the WMPO.

Four County Electric Company

No response

NC DENR Division of Coastal Management

No comment

NC DENR Division of Forestry

No response

NC DENR, Division of Energy, Mineral, and Land Resources - Land Quality Section

An erosion and sedimentation control plan will be needed for this project. Please note that the Division of Energy, Mineral and Land Resources has not yet received a stormwater permit application for either the Master plan or for this first phase.

NC DENR Division of Waste Management

No response

NC DENR Division of Water Quality

No response

NC DOT Division of Highways

The developer will need submit a Driveway permit and, subdivision plans to our office for review and approval. We have had initial talks with the developer and Engineer, but have not been contacted with the latest plans. If you have any questions, please contact me.

Thank You,

Douglas W. Racine

NC DOT Transportation Planning Branch

No response

NC Office of State Archaeology

No response

NC Wildlife Resources Commission

No response

Pender County Addressing Coordinator

No submitted road names at this time.

Pender County Building Inspections

No response

Pender County Emergency Management

No response

Pender County Environmental Health

All lots will need an application for an Improvement Permit with the Env. Health Section.

Pender County Fire Marshal

No response

Pender County Flood Plain Management

A portion of the property is located in the Approximate A SFHA, therefore the following provisions will apply:

5.3 Standards for Floodplains without Established Base Flood Elevation

Within the Special Flood Hazard Areas designated as Approximate Zone A and established in Section 3.2, where no Base Flood Elevation (BFE) data is available, the following provisions, in addition to the provisions of Section 5.(1) and (2), shall apply:

A. No encroachments, including fill, new construction, substantial improvements or new development shall be permitted within a distance of twenty (20) feet each side from top of bank or five times the width of the stream, whichever is greater, unless certification with supporting technical data by a registered professional engineer is provided demonstrating that such encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge.

B. The BFE used in determining the regulatory flood protection elevation shall be determined based on one of the following criteria set in priority order:

1) If Base Flood Elevation (BFE) data is available from other sources, all new construction and substantial improvements within such areas shall also comply with all applicable provisions of this Ordinance and shall be elevated or flood proofed in accordance with standards in Section 5.(1) and (2).

2) All subdivision, manufactured home park and other development proposals shall provide Base Flood Elevation (BFE) data if development is greater than five (5) acres or has more than fifty (50) lots/manufactured home sites. Such Base Flood Elevation (BFE) data shall be adopted by reference in accordance with Article 3, Section B to be utilized in implementing this Ordinance. A formal adoption of Base Flood Elevation (BEF) data by the Pender County Board of County Commissioners is necessary.

3) When Base Flood Elevation (BFE) data is not available from a Federal, State, or other source as outlined above, the reference level shall be elevated to or above the regulatory flood protection elevation, as defined in Section 2.

Pender County Parks and Recreation

Parks and Recreation has no issues with this request.

Pender County Public Library

No response

Pender County Public Utilities

This development does not have approved waterline construction plans yet.

PCU has water available to serve Phase I of this development through our water main extension policy, and will serve this development with water.

Any development beyond Phase I will require the developer to connect the proposed water mains within the development to: Doral Drive, Friendly Lane, and Cardinal Point if Cardinal Point is built. If Cardinal Point is not built a stub for future connection will still be required.

Please let me know if you have any questions.

Pender County Schools

The western half of the property is in the Topsail Elementary School district and the eastern half is in the North Topsail Elementary School district. There are more than 620 students at North Topsail and the capacity is 520, Topsail Elementary has over 530 students with a capacity of 500 students. South Topsail Elementary has 575 students and has a capacity of 540. As you can see the three elementary schools are over capacity and mobile classrooms are being used to house students.

The impact of this proposed subdivision will be shared by North Topsail and Topsail Elementary Schools We are working towards a growth study for the schools but we do not know when we the results will be available. The schools will have to utilize mobile classrooms until a new school is built in the area north of the North Topsail School. This will allow us to ease crowding in the other elementary schools in the area.

I have reviewed the site plan and have the following observations:

- 1. If buses are allowed on the subdivision roads they must designed and built according to the North Carolina Department of Transportation guidelines.*
- 2. The cul-de-sacs must have a minimum diameter of 90 ft.*
- 3. There should be designated bus stops with a covered canopy to protect the children during inclement weather events.*
- 4. The bus stops must not be less than 2/10's of a mile. (Approximately 1,000 ft.).*
- 5. Pender County cannot be held liable for road/highway damage.*
- 6. Appropriate speed limit and other signage must be posted*
- 7. If the road is considered private and buses are requested approval from the homeowners association or owner is required.*
- 8. These comments will apply to any future subdivision.*

Pender County Sheriff's Department

No response

Pender County Soil and Water Conservation District

Soil & Water sees no problem, if all state agencies required permits are approved.

Progress Energy Corporation

No response

US Army Corps of Engineers

No response

Wilmington Metropolitan Planning Organization

- 1. The applicant should provide details on Horizontal Centerline Radius for the subdivision streets within the site.*
- 2. Applicant must provide a driveway detail on the site plan.*
- 3. The proposed 30' private Right of Way does not meet minimum requirements for a private street. Upgrade to NCDOT standards for a local street.*
- 4. The proposed 30' private Right of Way is over 500' in length and does not connect to another street. Provide a cul-de-sac or Turn-around for Pender County Fire Access.*

5. *Revise the proposed cul-de-sac cross section to a minimum of 40' to accommodate School Buses and Fire Engines using the streets.*
6. *The parcel is located outside the Transportation Corridor Official Map filed for R-3300, Hampstead Bypass Corridor; therefore, the parcel does not conflict with the current corridor map for R-3300 Hampstead Bypass.*
7. *Provide a Sidewalk detail and curb ramp detail for the proposed 5 foot sidewalks.*

Evaluation

A) Public Notifications: Public Notice of the proposal for map change has been advertised in the *Pender-Topsail Post and Voice*. Adjacent property owners have been given written notice of the request, and a public notification sign has been placed on the property.

B) Existing Zoning in Area:

The property is located within a PD, Planned Development District. The intent of the PD, Planned Development District is to provide an alternative to a conventional development. The PD, Planned Development District allows 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.

The properties to the north and east are zoned RP, Residential Performance zoning district and the properties to the south and west are zoned PD, Planned Development District.

C) Existing Land Use in Area:

This proposal is located within the area previously known as the Topsail Greens Golf Course. To the north of the Phase I area is future development of this Master Development Plan as well as the existing Topsail Greens Community. The properties immediately northeast of Phase I are low density residential housing communities, Sloop Point South and Cardinal Acres Manufactured Home Park. Along the immediate southern and western boundary of the Phase I is a low density residential subdivision called Greenway Planation and moderate density multifamily (Vista Cove).

D) 2010 Comprehensive Land Use Plan:

1. **Mixed Use:** The Mixed Use land use classification designates locations where a mixture of higher density/intensity uses is to be encouraged. Mixed Use areas should be characterized by physically and aesthetically unified developments containing a mixture of commercial, office, institutional, and high- and medium-density residential uses, arranged in a walkable, compact, pedestrian and transit friendly manner.
2. **Supporting Comprehensive Plan Policies and Goals:**
 - a. **Growth Management Goal 1A.1** Manage the physical growth and development of Pender County by promoting more intensive land uses in key locations identified for such growth while preserving and protecting the unique physical character and social assets of the predominant rural lifestyle and coastal environment that makes the County a unique place to live.
 - i. **Policy 1A.1.2**
Encourage development in areas where the necessary infrastructure – roads, water, sewer, and schools - are available, planned or can be most cost effectively provided and extended to serve existing and future development
 - b. **Transportation Goal 2B.1** Manage the timing, location and intensity of growth by coordinating transportation improvements in accordance with the Comprehensive Land Use Plan and the Coastal Pender Collector Street Plan.
 - i. **Policy 2B.1.4**
Adopt regulations that require new developments and individual sites throughout the County to provide vehicular and pedestrian interconnectivity to existing or planned adjacent sites and adjoining developments.
 - ii. **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 RECOMMENDATION

The approval is also subject to the all conditions required by the Pender County Planning Board and regulatory State and Federal Agencies. The submitted Preliminary Plat for Phase I of the Oaks at Sloop Point must meet all Pender County Unified Development standards, particularly those outlined in Section 6.4 Preliminary Plat Contents; the following items are outstanding and must be finalized prior to Final Preliminary Plat approval:

1. Certificate of approval by the Pender County Addressing Coordinator for proposed road names;
2. Soil suitability analysis indicating the suitability of the property for individual septic tanks or an Improvement Authorization Permit for each lot unless community sewer is available and a conditioned approval for connection is submitted. The soil suitability analysis of the property shall also indicate the suitability of the soil for the type structures proposed;
3. Approval by NCDOT of connection of subdivision roads with DOT maintained roads (Driveway Permit);
4. Street construction & street drainage plans as approved by DOT District Engineer with letter of approval (for public streets);
5. Acceptance of operation and maintenance of the system by a Public or Community Water system as defined in this Ordinance and;
6. Sediment & Erosion Control Plans as approved by Land Quality (with letter of approval).

The request is consistent with the 2010 Pender County Comprehensive Land Use Plan and Pender County Unified Development Ordinance; therefore planning staff recommends the approval of the Preliminary Plat for Phase One (1) of The Oaks at Sloop Point. Any and all future development, phases or changes to this Master Development Plan are subject to the Planning Board review and approval.

Board Action for Preliminary Plat Phase One:

Motion: _____ **Seconded:** _____

Approved: _____ **Denied:** _____ **Unanimous:** _____

Williams: ___ McClammy: ___ Boney: ___ Baker: ___ Edens: ___ Marshburn: ___ Nalee: ___

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.

2.1.1 Buffer Descriptions and Options

The following descriptions list the specifications of each buffer. The requirements reflect the minimum and the developer may increase the buffer at his/her option. Buffer requirements are stated in terms of width of the buffer and the number of plant units required per one hundred (100) linear feet of buffer. The requirements of a buffer may be satisfied by any of the options under each letter designation or existing equivalent vegetation. All mathematical rounding shall be upward and shall be applied to the total amount of plant material required in the buffer, not to each one hundred (100) foot length. The required canopy and

understory trees shall generally be spread uniformly along the buffer. Shrubs may be clustered when a 98% grass cover is provided in all areas of the buffer other than within 4 ft. of the base of any tree or shrub.

Buffer A

Buffer "A" This buffer is designed primarily for road frontage areas and should run parallel to the street to provide a continuous, aesthetically pleasing streetscape. The requirements for buffer "A" shall be met by any one of the following:
A-1) 15 foot wide strip with 3 canopy trees, 2 understory trees and a grass cover of at least 98 % coverage (except within 4 feet of the base of any tree), per 100 linear feet (width may be reduced to 10' for existing developed lots that are subject to new buffer requirements), or
A-2) 20 foot wide strip with 3 canopy trees, 2 understory trees and either a grass cover of at least 98 % coverage (except within 4 feet of the base of any tree or shrub) or 18 shrubs per 100 linear feet, or
A-3) 25 foot wide strip with 1 canopy tree, 2 understory trees and either a grass cover of at least 98 % coverage (except within 4 feet of the base of any tree or shrub) or 21 shrubs per 100 linear feet, or
A-4) 30 foot wide strip with 1 canopy tree, 2 understory trees and either a grass or other approved vegetative ground cover of at least 98 % coverage (except within 4 feet of the base of any tree or shrub) or 32 shrubs per 100 linear feet.

Buffer B

Buffer "B" This buffer is a medium density planting area to be used primarily along non street boundary lines to provide spatial separation between similar types of uses. The requirements for buffer "B" shall be met by any one of the following:
B-1) 10 foot wide strip with 3 canopy trees, 4 understory trees and a grass cover of at least 98 % coverage (except within 4 feet of the base of any tree), per 100 linear feet, or
B-2) 15 foot wide strip with 3 canopy tree, 2 understory trees and a grass cover of at least 98 % coverage (except within 4 feet of the base of any tree), per 100 linear feet, or
B-3) 20 foot wide strip with 1 canopy tree, 2 understory tree and either a grass cover of at least 98 % coverage (except within 4 feet of the base of any tree or shrub) or 15 shrubs per 100 linear feet, or
B-4) 25 foot wide strip with 0 canopy trees, 5 understory trees and either a grass cover of at least 98 % coverage (except within 4 feet of the base of any tree or shrub) or 21 shrubs per 100 linear feet.

Buffer C

Buffer "C" This buffer is designed to provide a high density screen primarily along non street boundary lines to provide buffer and separation between different categories of uses such as commercial adjacent to residential uses or other non-residential uses adjacent to high density single family residential uses. The requirements for buffer "C" shall be met by any one of the following:
C-1) 10 foot wide strip with a 6 foot high wood stockade, basket weave, or other solid wood fence and 2 canopy trees and a grass cover of at least 98 % coverage (except within 4 feet of the base of any tree), per 100 linear feet, or
C-2) 15 foot wide strip with a 6 foot high wood stockade, basket weave, or other solid wood fence or an evergreen hedge* that will provide a continuous screen at least 6' high within 4 years and 1 canopy tree, 4 understory trees and a grass cover of at least 98 % coverage (except within 4 feet of the base of any tree), per 100 linear feet, or *Reference spacing requirements in plant list for specific species and spacing to achieve evergreen hedge
C-3) 20 foot wide strip with an evergreen hedge that will provide a continuous screen at least 6' high within 4 years and 1 canopy tree or 3 understory trees and a grass cover of at least 98 % coverage (except within 4 feet of the base of any tree), per 100 linear feet, or
C-4) 25 foot wide strip with an evergreen hedge that will provide a continuous screen at least 6' high within 4 years, 2 understory trees and a grass cover of at least 98 % coverage (except within 4 feet of the base of any

tree), per 100 linear feet.

Buffer D

Buffer "D" This buffer is a low density planting area to be used along boundary lines in rural areas between large lots or tracts with substantial buffer width and setbacks to provide spatial separation between uses that are developed at very low density. The requirements for buffer "D" shall be met by any one of the following:

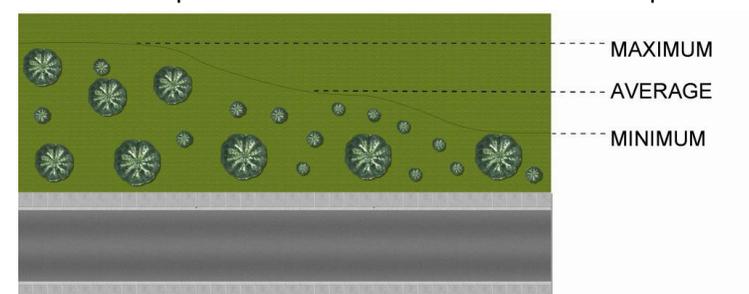
D-1) 15 foot wide strip with 3 canopy trees and a grass or other approved vegetative ground cover of at least 98 % coverage (except within 4 feet of the base of any tree) per 100 linear feet, or

D-2) 20 foot wide strip with 2 canopy trees, 2 understory trees and a grass or other approved vegetative ground cover of at least 98 % coverage (except within 4 feet of the base of any tree) per 100 linear feet, or

D-3) 25 foot wide strip with 1 canopy tree, 3 understory trees and a grass or other approved vegetative ground cover of at least 98 % coverage (except within 4 feet of the base of any tree) per 100 linear feet.

2.1.2 Buffer Depth Averaging

While the buffer depth is normally calculated as parallel to the property line, design variations are allowed and are calculated on the average depth of the buffer per 100 feet of linear width measured along the property line. Minimum depth of buffer in any case shall not be less than 50% the required depth of the buffer chosen. Maximum depth shall not be more than 150% the required depth of the buffer chosen.



2.1.3 Project Boundary Buffer

The following are the buffering requirements of listed permitted uses in each district and certain special types of development. Special uses may be required to meet additional buffer requirements, but shall in all cases be required to have at a minimum the same buffer as permitted uses. Existing vegetation that meets or exceeds the requirements of the specific buffer is desired and allowed instead of any required new plantings.

Buffers Required for Mobile Home Parks - Mobile home parks shall be required to have the following buffers:

Location of Buffer for Mobile Home Parks	Type Buffer
Along all boundaries adjacent to a street	Buffer A
Along all boundaries adjacent to single family residential uses or residential lots with a parcel size of less than 1 acre and when a single family structure is within 50' of the boundary of the park	Buffer C
Along all other boundaries	Buffer B

Buffers Required for Multifamily and Planned Developments - Multifamily and Planned Developments shall be required to have the following buffers:

Location of Buffer for Multi-family & Planned Developments	Type Buffer
Along all boundaries adjacent to a street	Buffer A
Along all boundaries adjacent to single family residential uses or residential lots with a parcel size of less than 1 acre and when a single family structure is within 50' of the boundary of the development	Buffer C

Along all other boundaries	Buffer B
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Buffers Required for Shopping Centers - Shopping centers shall be required to have the following buffers:

Location of Buffer for Shopping Centers	Type Buffer
Along all boundaries adjacent to a street	Buffer A
Along all boundaries adjacent to Residential Districts or uses and adjacent to single family residential uses or residential lots with a parcel size of less than 1 acre and when a single family structure is within 50' of the boundary of the development	Buffer C
Along all other boundaries	Buffer B

Buffers Required for All Non-residential Uses (Excludes Industrial Uses) in All Residential Districts, (RA, RP, RM, MH) - Residential uses in Residential Districts are not required to have buffers, except as required for mobile home parks, Multifamily and Planned Developments. All commercial or uses other than residential uses (excluding industrial uses) in the Residential Districts shall provide the following buffers: Uses in these districts that require a special use permit will in addition, provide other buffers as specified in the special use permit.

Location of Buffer for Non-residential Uses in the Residential Districts	Type Buffer
Along all street boundaries of the Development	Buffer A
Along all boundaries adjacent to single family residential uses or residential lots with a parcel size of less than 1 acre and when a single family structure is within 50' of the boundary of the development	Buffer C
Along all other non-street boundaries	Buffer B

Buffers Required for the Commercial Districts - All uses in the General Business and Office & Institutional Districts shall be required to have the following buffers:

Location of Buffer for GB and OI Districts	Type Buffer
Along all boundaries adjacent to street right-of-ways	Buffer A
Along all non-street boundaries adjacent to Residential Districts and adjacent to single family residential uses or residential lots with a parcel size of less than 1 acre and when a single family structure is within 50' of the boundary of the development	Buffer C
Along all other boundaries	Buffer B

Buffers Required For The Industrial Districts And Industrial Uses In Any Other Districts

Location of Buffer for Industrial Districts	Type Buffer
Along all street boundaries	Buffer D
Along all non-street boundaries adjacent to Residential Districts when adjacent to single family residential structures within 50' of the project boundary	Buffer C
Along all other boundaries	Buffer D

Buffers Required in the Watershed Overlays (WS-PA & WS-CA).

Type Use	Buffer Requirement Watershed Districts
Bona fide Farms	Bona fide Farms in the Watershed Critical Area District (WSCA) shall maintain a 10 foot permanently vegetated buffer adjacent to all perennial waters as shown on the most recent edition of the USGS 1:24000 (7.5 minute) topographic map. The buffer shall remain vegetated and shall be used only for access and utilities.
Silviculture Activities	Silviculture activities shall maintain buffers (Streamside Management Zones) as described in the Division of Forest Resources Rules and Best Management Practices Manual.

All activities, other than bona fide farms and silviculture activities	All activities, other than bona fide farms and silviculture activities shall maintain a 30 foot vegetated buffer adjacent to all perennial waters as shown on the most recent edition of the USGS 1:24000 (7.5 minute) topographic map. The buffer shall remain vegetated and shall be used only for access and utilities.
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