Chapter 7. OPEN SPACE

7.1 Purpose and Intent

The intent of these requirements is to allow for the usage of centrally located, unencumbered land as neighborhood open spaces and not to permit the use of leftover or otherwise unusable land to fulfill the requirements of this Chapter. Recreational open space as defined by this Chapter is also distinct from those areas that are environmentally significant and must be protected in their pristine state as recreational open space is designed to supplement the human habitat through its use and enjoyment.

7.2 General Provisions

A. Open space is defined as all areas not covered by building or parking lots, dry detention structures, streets, required setbacks, or golf courses.

B. Recreational open space shall be planned and improved, accessible and usable by persons living nearby. Improved shall mean cleared of underbrush and debris and may contain one or more of the following active or passive enhancements: landscaping, walls, fences, walks, statues, utilities, irrigation, fountains, ball fields, and/or playground equipment.

C. Significant stands of trees, stream bed areas, and other valuable topographic features shall be preserved within the recreational open space areas where practical. Areas noted on any adopted Master Plan as open space shall be preserved and dedicated where practical and feasible and may be left unimproved in accordance with the Plan.

D. Playground equipment, statues, and fountains should be located toward the interior of squares and parks away from the public right-of-way to provide for adequate safety of the user.

E. Walls and fences shall be made of brick, stone, wrought iron, or wood and shall not exceed 4 feet in height. (Exception: Fences used in conjunction with ball fields.)

F. Recreational open space should provide focal points for the neighborhood and Town. A central square or green, for example, may comprise a majority of the area required for dedication.

G. Dedicated open space shall be separately deeded to either a homeowner's association, a non-profit land trust or conservancy, Wake County, to the Town of Knightdale (upon approval by the Town Council), or may be held in private ownership with conservation easements recorded in the Wake County Register of Deeds in a form approved by the Town.

7.3 Recreational Open Space Dedication

All residential and mixed-use residential developments with more than 8 total units shall be required to dedicate open space. The amount of recreational open space required for dedication shall be determined using the Recreational Open Space Dedication Matrix. These figures are based upon similar dedication requirements throughout the State of North Carolina with three minor adaptations:

A. First, the matrix was designed to base open space requirements on the number of bedrooms in a given development rather than the usual dedication based upon the dwelling unit. This more accurately reflects the needs of the residents, as the number of bedrooms within a given development is a better representation of the actual number of residents who would use open space.

B. Second, the matrix is established to encourage the preservation of land. By allowing for an increase in densities, the matrix provides for an increasing requirement in open space dedication. For example, a 50-acre subdivision of 100 lots developed at a density of 2 units per acre would generally require 3.44 acres or 7% of dedicated open space. In contrast, this same tract of land subdivided into 400 lots (or condos) at a density of 8 units per acre would require 15.15 acres or 30% of dedicated open space. These figures are based upon an average of 3 bedrooms per unit.

C. Finally, this matrix has been developed with regard to the availability of accessible open space in close proximity to the proposed development. Developments within a ¼ mile (5 minute) walk (along sidewalks or other pedestrian access) to existing publicly dedicated open space (parks, greenbelts, etc.) are granted a reduction in required open space dedication of 25%. Similarly, developments that are adjacent to existing publicly dedicated open space are granted a 50% reduction in required dedication.

Because the open space dedication requirements are based upon preliminary estimations of bedroom units in a given development, changing market conditions and final build-out of a project may yield a different bedroom count. In order to accommodate for variations, this code will permit variations to the estimated number of bedrooms up to 10%. Variations in excess of 10% may allow a payment in lieu of additional dedication. Variations in excess of 25% will require the dedication of additional open space.

For the purposes of good faith estimation, all single family developments will dedicate open space at a rate of 3.5 bedrooms per unit unless otherwise stipulated. Attached homes and apartments will dedicate open space at a rate of 2-4 bedrooms in accordance with building specifications.

RECREATIONAL OPEN SPACE DEDICATION MATRIX					
	Gross Dwelling Units per Acre				Proximity to Parks
	0-2	2-6	6-10	+10	
Estimated Number of Bedrooms X	500	520	550	580	Base
	375	390	413	435	Within ¼ mile
	250	260	275	290	Adjacent to Existing Park
All figures are in square feet					

How to use this matrix:

1. Determine average density for proposed development (Gross Dwelling Units per Acre).
2. Determine average number of bedrooms per dwelling unit (good faith estimate).
3. Multiply number of bedrooms by the number of units to get to the estimated number of bedrooms.
4. Multiply the estimated number of bedrooms by figures shown in the matrix which relate to the density of the site and its proximity to existing open space.

EXAMPLE:

A developer wants to subdivide a 50 acre tract of land into 120 lots. The average number of bedrooms per lot is 3.5 (some 3 bedroom, some 4 bedroom). The tract is not within ¼ mile walking distance to any publicly dedicated open space. How much open space is required for dedication?

The density (in dwelling units per acre) is 2.4. There are an estimated 420 bedrooms. Using the multiplier of 520 as shown in the matrix, the required amount of useable open space to be required is 218,400 square feet or 5.01 acres or 10% of the total area.

7.4 Payment in Lieu of Open Space Dedication

If recreational open space within a development is physically impractical due to unusual topographic conditions, then the Town Council may, at its discretion, accept either an equitable amount of land in another location or a fee paid to the Town in lieu of dedication. A combination of open space dedication and payments-in-lieu of dedication are permitted.

Payments in lieu of dedication shall be approved as part of the Development Plan. Any disagreement in the amount of required payment shall be calculated based on an average tax value per acre of the land. All payments made in lieu of dedication shall be made at the time of Construction Document approval. Failure to submit the required fee along with such applications will delay approval of such submissions until payment is rendered. All funds received for payment in lieu of dedication shall be used for the acquisition, development, or redevelopment of public open space within the Town.

7.5 Recreational Open Space Criteria

Criteria for evaluation of land proposed for improved active and/or passive recreational open space shall include the following:

A. Location

Land for recreational open space shall be centrally and internally located so as to serve the needs of the residents of the subdivision or the residents of the immediate area within which the subdivision is located.

B. Type

Up to one half of the recreational open space shall be provided for passive recreation purposes such as walking, jogging, cycling, relaxation, etc. Preservation of natural resources or cultural resources such as steep slopes, rock outcroppings, mature woodlands or water resources may also be counted provided there is some method for public enjoyment and appreciation of such resources. At least one half of the recreational open space shall be provided for active recreation purposes such as playgrounds, tennis courts, ball fields, volleyball courts, etc. In addition, 10-foot multi-use path infrastructure constructed as required by *Appendix C: Town of Knightdale Bike Route and Greenway Plan*, while passive in nature, shall be credited as active recreational open space for the area of the public greenway easement. *See Section 7.5(F).*

C. Topography

The average slope of land for active recreation shall not exceed seven and one-half percent (7 1/2 %). The average slope of land for passive recreation shall not exceed the average slope of the entire subdivision or development, and in no case shall the average slope exceed fifteen percent (15%).

D. Shape

The shape of land for active recreation shall be sufficiently square or rectangular to be suitable for, but not limited to, playground, courts, or playfields. The shape of land for passive recreation shall be sufficient to encompass the walking or jogging path, natural or cultural resource or other proposed area.

E. Unity

Land provided for recreational open space shall form a single parcel except where the Town Council determines that two (2) or more parcels are more suitable to the needs of a particular subdivision. The Town Council may require that such parcels be connected by a path contained within a strip of recreation area which shall have a minimum width of thirty (30) feet. A maximum width of fifty (50) feet may be required where slope, parallel utility lines or other site conditions warrant additional width.

F. Accessibility

All recreational open space shall be conveniently accessible to all residents of the subdivision, and shall have at least fifty (50) feet of frontage on at least one public street within the subdivision. All multi-use path greenways shall be located on an easement of 20 feet in width that guarantees access by pedestrians and non-motorized vehicles, except for multi-use paths required by Appendix C which shall be located on an easement of 30 feet in width.

G. Usability

Areas including ponds, lakes, wetlands, floodplains, or easements for public utility transmission lines shall not receive credit in the computation for the amount of active recreational open space required.

H. Comprehensive Plan Compatibility

For subdivisions which abut or include areas designated on the Town's Parks and Recreation Plan, the Town may require that the required recreational open space be located in accordance with the proposed site or portion of an existing site as shown thereon.

7.6 Recreational Open Space Credits

A. Parkways: For each street segment within a development that is single-loaded (buildings on one side only) and is adjacent to recreational open space, the length times half of the width of said street segment right-of-way shall be credited 100% of the area against the passive recreational open space square foot requirement.

B. Historic Resources: Historic resources determined by the Administrator as candidates for local historic district or local historic landmark designation per Chapter 160A, Article 19, Part 3C of the North Carolina General Statutes, and are identified for preservation as part of a development proposal shall be credited 200% of the area against the passive recreational open space square foot requirement. In the case of historic buildings "preservation" shall constitute active rehabilitation and use of the building or deeded transfer of the building(s) and associated property to a local historic preservation organization enabled to receive such transfers.

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