

ARTICLE 10.

EXCEPTIONALLY DESIGNED PROJECTS

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ARTICLE 10.

EXCEPTIONALLY DESIGNED PROJECTS

Sec. 18-541. Purpose.

This Article applies to development within areas classified as Watershed Resource Protection or Conservation Areas in the Coastal Area Management Act (CAMA) Land Classification Map, and will be used to determine density increases under Article 5 of this chapter. In areas identified as Watershed Resource Protection or Conservation on the most recently adopted CAMA Land Classification Map, impervious surface area for any residential development is limited to twenty-five (25) percent of the total buildable area with allowable increases subject to the conditions in this Article. In the conservation land class, residential density is also limited to two-and-one-half (2.5) units per acre with increases as allowed under this Article and applicable zoning district. Impervious surface area for any redevelopment project that meets all current LDC standards is limited to the existing impervious area, with allowable increases in density and/or coverage subject to the conditions in this Article.

(Ord. No. O-2006-112, § 1, 11-21-06)

Sec. 18-542. General.

This provision specifies the development practices criteria necessary to increase density on lands classified as Watershed Resource Protection or Conservation. Greater development density shall be allowed if certain conditions are met. These "development bonuses" are intended as incentives for developers to practice environmentally preferred design techniques. An incremental bonus of additional dwelling units per acre and additional impervious surface will be allowed for projects that reach the threshold points earned through adding features of an "exceptionally designed project", provided the baseline criteria are met. The provisions of this Article do not apply to sites zoned MX.

(Ord. No. O-2006-112, § 2, 11-21-06)

Sec. 18-543. Baseline criteria.

The following are the necessary elements of exceptionally designed projects. These items are the baseline requirements which must be met in order for any development to be considered as an exceptionally designed project.

- (a) *Site Assessment.* A detailed natural resource inventory and assessment shall be prepared before the conceptual site design is developed to identify and prioritize the natural resources requiring management through project planning. The inventory shall identify high-quality natural areas as part of the site analysis and shall be used to incorporate site sensitivity into the design.
 - (1) The assessment shall involve professionals of the disciplines necessary to adequately assess any aspect to the satisfaction of the City Manager.
 - (2) The assessment shall list the names and qualifications of the persons who were primarily responsible for preparing any part of the assessment.

- (3) The assessment shall provide a concise inventory of existing environmental and natural site attributes and a full and accurate disclosure of the environment as it would be altered by the project under consideration
 - (4) The assessment shall inform decision makers and the public of reasonable alternatives that would avoid or minimize adverse impacts or enhance the quality of the environment.
 - (5) The assessment shall describe the direct and indirect consequences of the proposed project and any conflicts between proposed project development activities and federal, state, and local rules and regulations intended to protect the environment.
 - (6) Site context maps shall be provided to show the relationship of the site to patterns of existing development and/or natural features on other properties within two thousand (2,000) feet radius around outside boundaries of the project site. The map must reflect an awareness of possible incompatibilities and illustrate potential opportunities for creating interconnected networks of streets, trails, habitats, and greenway lands.
- (b) *Development Plans.* A conceptual site development plan drawn to scale must be submitted to the development services department that demonstrates to the satisfaction of the City Manager that all the requirements of this section are met. The plan must technically and visually illustrate the development potential achievable for the project site, and demonstrate that the innovative design proposal will achieve a net improvement in the functional value of the streams and wetlands and their buffers over that existing on the subject property and beyond that which is achievable using the provisions of Article 14, Division III herein. The plan must clearly demonstrate how the project meets the criteria in this section to qualify for any density adjustment.
- (c) *Low Impact Development (LID) Techniques.* The project shall manage stormwater onsite through Low Impact Development (LID) techniques.
- (1) Definition. LID combines resource conservation, a hydrologically functional site design, and pollution prevention measures to reduce development impacts on water quality and to better replicate natural watershed hydrology. Through a variety of small-scale site design techniques integrated in a series, LID controls runoff discharge, volume, frequency, and quality to mimic predevelopment runoff and hydrologic conditions.
 - (2) The following elements are necessary in order for a project to be considered as including LID design and qualify for any density adjustments in this section:
 - a. Small scale techniques to manage precipitation as close as possible to where it hits the ground.

- b. Strategic placement of linked lot-level controls that are customized to address specific pollutant load and stormwater timing, flow rate, and volume.
- c. Use of devices that allow infiltrating rainfall water to groundwater and evaporating rain water back to the atmosphere (raingardens, cisterns, dry wells, filter strips, etc.) to reduce runoff volume.
- d. Site fingerprinting (minimal disturbance techniques) to minimize the extent of clearing and grading, thereby minimizing the hydrologic impacts. Site fingerprinting includes restricting ground disturbance by identifying the smallest possible area for disturbance and clearly delineating it on the site. With Site fingerprinting, land cover impacts are reduced through minimal disturbance techniques that include the following:
 - i. Reduce paving and compaction of highly permeable soils to preserve absorptive capacity.
 - ii. Minimizing the size of construction easements and material storage areas, and siting stockpiles within the development envelope during the construction phase of a project.
 - iii. Delineating and flagging the smallest site disturbance area possible to minimize soil compaction on the site and restricting temporary storage of construction equipment in these areas.
 - iv. Siting building layout and clearing and grading practices to avoid removal of existing trees of all sizes where possible.
 - v. Minimizing imperviousness of site by reducing the total area of paved surfaces.
 - vi. Disconnecting as much impervious area as possible by breaking it up with pervious surfaces (grass filter strips in parking lots, raingardens, swales, etc.) to increase opportunities for infiltration and reduce water runoff flow.
 - vii. Maintaining existing topography and associated drainage divides to encourage dispersed flow paths.

Sec. 18-544. Scaled criteria.

The following are scaled development practices criteria, which to the degree they are met may qualify a development to be considered as an exceptionally designed project for the purpose of awarding density bonuses. Specific items are given weighted scores in Table 1. Each level within Table 1 represents an additional five (5) points (e.g. A1 = 5, A2 = 10, A3 = 15, etc.). The overall score shall be determined

by adding all points acquired within each *Area* in Table 1. Incremental increases in density and/or impervious surface area may be permitted pursuant to Table 2, based on the score awarded by incorporating the specific improvements. Scoring shall not credit the same element of the project toward points in more than one area.

- (a) *Wetland Function.* Ensure the perpetual maintenance of characteristic wetland functions and habitat through preservation of contiguous natural wetlands. To qualify for points, the wetland feature to be preserved must be greater than one (1) acre in size and must be wetland area that is not otherwise subject to protection under some other local, State or Federal regulatory provision. Additional bonus points may be earned by enhancing or restoring impacted wetlands or constructing new wetlands. To qualify, wetland restoration, enhancement, and construction must conform to the Stream Mitigation Guidelines published April 2003 by the US Army Corps of Engineers and the Technical Guide for Stream Work in North Carolina published by the NC DENR Divisions of Water Quality and Land Resources in April 2001, or subsequent revisions.
- (b) *Shoreline/Riparian/Wetland Buffers.* Increase the setback of buildings, improvements, and new structures such as houses, sheds, and other buildings and hardened surfaces, etc. from lakes, streams, and wetlands. Increase protected areas, or vegetated buffers, around aquatic resources. The buffer and setback is measured perpendicularly from the most landward limit of the top of the stream bank (or from the normal pool elevation of reservoirs or the edge of the wetland resource as determined by the jurisdictional line for 404 wetlands or the delineation of the applicable Conservation Resource(s) on the site inventory). To qualify for any density bonus consideration, the setback or vegetated buffer must be beyond that which is otherwise required by local State or Federal regulatory provisions as set forth in Table 1 of this chapter.
- (c) *Impervious Surfaces.* Limit the amount of imperviousness of the development by use of reduced pavement width and length in streets and driveways, planted strips between parking lot rows and other methods which may be submitted for approval to the City Manager. Reduce impervious surface from building and parking footprints by use of multi-story buildings and structured parking, shared parking, and grassed overflow parking.
- (d) *Porous Pavement:* Decreased imperviousness of hardened surfaces through use of porous pavement surfaces. To qualify, soil evaluations must show that permeability is suitable for pavement to properly function to infiltrate water from rainfall into the underlying soils. Only those surfaces that are not required to be made pervious by the parking standards are considered in calculating the percentage pavement in this category.
- (e) *Flood Zone Storage Capacity.* Credit may be given to projects that maintain flood plain storage capacity and reduce uses in the flood plain that are dangerous to health, safety and property due to water or erosion hazards. To qualify, projects may not include filling, grading, dredging and other development which may increase erosion or decrease floodplain storage volumes.
- (f) *Constructed Wetlands.* Development of constructed wetlands for replacement of lost

wetland functions and habitat and for use in stormwater quality control. To qualify, the constructed wetlands must be constructed in accordance with NC Division of Water Quality Stormwater Best Management Practices Manual or some other design approved by the City Manager and must be planted with appropriate native vegetation. Project plans must demonstrate that the hydrology, soils, and vegetation are appropriate to support the wetland feature proposed.

- (g) *Stormwater Controls.* Reduce total pollutant load leaving the site and minimize changes in overall site hydrology by use of LID techniques, or a combination of LID and conventional techniques. To qualify for bonus points in this category, the following guidelines shall be met:
- (1) Site design and impervious cover reduction practices shall be used to the maximum extent practicable to minimize runoff volume;
 - (2) Serial combinations of the following techniques shall be used to result in a post-development time of concentration (T_c) equal to the pre-development T_c :
 - a. Vegetated swale conveyance of runoff;
 - b. Disconnecting impervious surfaces;
 - c. Lengthening of flow path;
 - d. Increasing resistance (roughness) of flow path;
 - e. Maximize use of sheet flow over vegetated surface;
 - f. Increase flow over pervious soils to increase filtration;
 - g. Flattening grades;
 - h. Use of decentralized bio-infiltration, and infiltration, and storage (cisterns);
 - i. Iterations and combinations of the above as approved by the City Manager.
 - (3) The entire retention storage volume must be retained and infiltrated.
 - (4) All added landscaping areas shall be made hydrologically functional for retention.
 - (5) The stormwater management plan shall include an approved maintenance plan and schedule.
- (h) *Undeveloped Open Space.* Conserve in perpetuity at least ten (10) percent of the site (minimum of one (1) acre) in undeveloped, undisturbed natural open space. This area must be protected from disturbance during the construction process (e.g., not graded, driven

upon, nor used for construction storage, staging, nor parking) and must be permanently protected by dedicating to the City or third party approved by the City Manager, by restrictive covenants, by a conservation easement, or by some other method approved by the City. Areas that are required to be set aside for conservation areas, or active recreation or areas that are cleared for utility easement can not be counted to qualify for bonus points in this category. Areas that are required to be protected in a natural state by any provision of the City or other regulatory program will not count toward meeting the qualifications for this category. Previously disturbed areas that are re-vegetated to pre-disturbance plant community types may qualify for credit in this category.

- (i) *Greenways*. Establish interconnecting greenway corridors and opportunities for future connection. The plans must assure connection and access across the property for any relevant greenway corridor that is part of a greenway network, current or future. The land of this corridor may be dedicated (deeded) to the City or a conservation agency or held in common ownership by a homeowners association and must be a minimum of thirty (30) feet in width or of a wider width as necessary to be consistent with the intended use, planned use on adjacent properties, or use identified in any City or County greenway plans. The project plan shall include a maintenance plan to be included in the homeowners association documents if ownership is held by a homeowners association.
- (j) *Habitat*. Preserve and protect blocks of intact native habitat.
 - (1) Qualifying habitat includes:
 - a. Native woodlands;
 - b. Unregulated wetlands;
 - c. Unique habitats as defined by the North Carolina Natural Heritage Program;
 - d. Ecologically highest quality natural areas as identified by the New Hanover County Natural Areas Inventory; or
 - e. Target preservation areas as identified by any City of Wilmington natural areas preservation plan.
 - (2) Areas that are required to be protected by any provision of the City or other regulatory program do not qualify for this category. To qualify, the area must be a minimum of one-half (1/2) acre and must be dedicated to the City or another agency approved by the City Manager or must be protected by a conservation easement.
- (k) *Shared Facilities/Utilities*. Provide shared-use (rather than individually owned) facilities, such as shared community boating facilities or water access, whenever possible. To qualify, the facility may only be made available to residents within the subdivision and must be developed in accordance with any other applicable regulations.

- (l) *Resource Enhancement.* Undertake projects such as bank stabilization, riparian buffer restoration, in-channel habitat improvements, and similar projects that improve or maintain the quality of a significant natural resource or reduce the project's impact. Qualifying projects must demonstrate an improvement in the quality of at least one (1) ecological function or value of the resource, include a monitoring and maintenance plan, and the area must be protected by a covenant or conservation easement. Restoration must be performed in conformance with the Stream Mitigation Guidelines published April 2003 by the US Army Corps of Engineers, the Guidelines for Riparian Buffer Restoration published by the NC DENR Division of Water Quality, and Technical Guide for Stream Work in North Carolina published by the NC DENR Divisions of Water Quality and Land Resources.
- (m) *Xeriscaping:* Utilize xeriscaping and drought tolerant landscape plantings on a project to reduce irrigation and fertilizer needs. The term xeriscape refers to a water-conservative approach to landscaping using selection of plants native to the area or to similar climates whose growing requirements are appropriate to the local climate, placement of plants to minimize watering requirements, and measures to avoid wasting water to evaporation and run-off. To be considered for points under this category, the project plan shall demonstrate that it is consistent with the seven (7) basic principles of xeriscaping: planning & natural design, limiting turf areas, selecting and zoning plants appropriately, improving the soil, using mulches, irrigating efficiently, and appropriate maintenance. The plan shall include a schedule of maintenance.

Table 1. Exceptional Development Practices Converted to Points

	Area	1	2	3	4	5	6	7
A	Wetlands	Preservation-50% onsite	Preservation-75 % onsite	Preservation-100 % onsite		Restoration/Creation-10 % of non-wetland area-min 1 ac in addition to/contiguous with preserved wetlands	Restoration/Creation-25% of non-wetland area-min 1 ac in addition to/contiguous with preserved wetlands	
			Enhancement-25% of preserved wetlands	Enhancement-50% of preserved wetlands	Enhancement-75% of preserved wetlands	Enhancement-100% of preserved wetlands		
B	Buffers-Wetlands/riparian/resources /habitat		35' vegetated		50' vegetated		100' or more vegetated	
C	Impervious Surfaces	20--24%		15--20%		Less than 15%		
D	Flood Zone storage area-volume of storage, cf	preservation of existing area in natural condition		enhancement of existing flood zone		removal of existing structures in floodplain		restoration of impacted storage areas
E	Stormwater-Retention		5/10/25 year storm		5/25/50 year storm		10/50/100 year storm	

F	Stormwater-Pollutant Reduction		90% TSS removal	95% TSS removal	97% TSS removal			
G	Site design-LID			post-development time of concentration (Tc) mimics predevelopment Tc for 10-year event	post development site hydrology mimics predevelopment hydrology			
H	Decreased impervious surface through use of approved porous surface		25% of total paved surface		50% of total paved surface		100% of total paved surface	
I	Species/Native Habitat or Ecological Communities Preservation	20%-preservation of existing habitat	40%-preservation of existing habitat	60% preservation of existing habitat	80%-preservation of existing habitat	100%-preservation of existing habitat	50%-enhancement of existing habitat	75%-enhancement of existing habitat
J	Share Water resource facilities-docks/water access	X						
K	Other Resource Enhancement stream/riparian		100--500 linear feet		500--1,000 linear feet		> 1,000 linear feet	
L	Greenways	200--500 linear feet		500--1,000 linear feet		> 1,000 linear feet		
M	Open space (unimproved natural areas)	10%--15% of total area		16%--25% of total area		> 26% of total area		
N	Replanting (restoration) of a native plant community as a buffer for an existing natural area or restoration of any undeveloped open space		10%--15% of total area		16%--25% of total area		> 26% of total area	
O	xeric landscaping	25% of total required landscaping		50% of total required landscaping		100% of total required landscaping		

Table 2. Density Allowances for Exceptional Development Projects

Zoning District	Symbol	Base Density	Units	Points						Max Density	units	
				10	20	30	40	60	80			100

Residential District	R-20	2.5	du/ac	n/a	n/a	n/a	n/a	n/a	n/a	n/a	2.2	du/ac
Residential District	R-15	2.5	du/ac	2.75	3						3.0	du/ac
Residential District	R-10	2.5	du/ac	3	3.5	4	4.4				4.4	du/ac
Residential District	R-7	2.5	du/ac	3	3.5	4	5	6.2			6.2	du/ac
Residential District	R-5	2.5	du/ac	3	3.5	4	5	6	7	8.7	8.7	du/ac
Residential District	R-3	2.5	du/ac	4	5	6	8	10	13	14.5	14.5	du/ac
Manufactured Housing Park District	MHP	2.5	du/ac	4	5	6	7	8	9	10.9	10.9	du/ac
Multiple-family Residential District-Low Density	MF-L	2.5	du/ac	3	3.5	4	5	6	8	10	10	du/ac
Multiple-family Residential District-Medium Density	MF-M	2.5	du/ac	4	5	6	8	10	13	17	17	du/ac
Multiple-family Residential District-Medium High Density	MF-MH	2.5	du/ac	5	6	8	10	15	20	25	25	
Multiple-family Residential District-High Density	MF-H	2.5	du/ac	6	7	8	10	15	20	30	36	du/ac
Historic District-Residential	HD-R	2.5	du/ac	4	5	6	7	10	13	14.5	14.5	du/ac
Central Business District	CBD-R	2.5	du/ac	6	7	8	10	20	30	36.3	36.3	du/ac

	BASE IMPERVIOUS AREA (%)								Max. Impervious	
ALL DISTRICTS	25	30	35	40	45	55	65	75	75	%

(Ord. No. O-2006-112, §§ 3--5, 11-21-06)

Secs. 18-545--18-550. Reserved.