

4.7 MODEL RESIDENTIAL CLUSTER DEVELOPMENT ORDINANCE

Residential cluster development is a form of land development in which principal buildings and structures are grouped together on a site, thus saving the remaining land area for common open space, conservation, agriculture, recreation, and public and semipublic uses (Whyte 1964; Unterman and Small 1977; Arendt 1996; Sanders 1980). In many respects, cluster development dates back to one of the earliest town forms. In primitive early settlements, dwelling units were often organized to form a common area or enclosure that residents could use together and readily defend if necessary.

In the United States, the development of Radburn, New Jersey, in 1928 represented the first formal introduction of the cluster development concept. It drew on English town planning principles, notably those of the Garden Cities movement. In Radburn, single-family homes and garden apartments are sited in "superblocks" of 35 to 50 acres (Stein 1957, 34-37). The superblocks have no through traffic and are interspersed with parks and related green spaces on which the residences face. Clustering also became the basic site design concept in such contemporary new towns as Reston, Virginia, and Columbia, Maryland.

Cluster development has a number of distinct advantages over conventional subdivision development. A well-planned cluster development concentrates dwelling units on the most buildable portion of the site and preserves natural drainage systems, vegetation, open space, and other significant natural features that help control stormwater runoff and soil erosion. The common areas function as a trap for nutrients dissolved or suspended in stormwater runoff (Arendt 1994, 278, 281). Cost savings during construction are achieved by the reduction in street lengths and utility installations. Later savings can be realized in street and utility maintenance (less surface area that needs repaving and fewer feet of water and sewer line to maintain). Because dwelling units are placed closer together, refuse and other service vehicles do not have to negotiate over as much street mileage, thus reducing travel time. Where clustering is accompanied by higher-density residential land uses and the provision of pedestrian pathways and bikeways, especially those that link to off-site activity centers, residents of the cluster development may walk and exercise more. Clustering also enhances the sense of community, allowing parents better supervision of children playing in common areas and promoting social interaction among neighbors.

This model ordinance is intended to encourage developers to use cluster development as an alternative to conventional lot-by-lot development and authorizes cluster development as-of-right either in all residential districts or in selected residential districts. Section 110 of the ordinance also offers density bonuses of up to 25 percent when a developer: (a) provides affordable housing as part of the cluster development (thereby helping the local government achieve housing goals that may have been established by the state) and/or (b) conveys land for open space, recreation, or other purposes that is accessible to the public.

Under Section 107 of the model, the local planning commission has the primary responsibility for reviewing and approving a cluster development, although such a function could also be assigned to a hearing examiner. The model ordinance sets forth criteria for the commission to apply in deciding whether to approve the cluster development. (Remember that the responsibilities of the local planning commission vary from state to state.)

The model does not include a severability clause because it assumed this ordinance will be incorporated into a zoning code that will have one already.

This model is based on a sample ordinance appearing in *Nonpoint Source Pollution: A Handbook for Local Governments* by Sanjay Jeer, Megan Lewis, Stuart Meck, Jon Witten, and Michelle Zimet, Planning Advisory Service Report No. 476 (Chicago: American Planning Association, 1997), 81-90.

Primary Smart Growth Principle Addressed: Preserve open space and farmland
Secondary Smart Growth Principle Addressed: Distinctive and attractive places

101. Purpose

(1) It is the purpose of this ordinance to permit residential cluster development in order to:

- (a) encourage creative and flexible site design that is sensitive to the land's natural features and adapts to the natural topography;
- (b) protect environmentally sensitive areas of a development site and preserve on a permanent basis open space, natural features, and prime agricultural lands;
- (c) decrease or minimize nonpoint source pollution impacts by reducing the amount of impervious surfaces in site development;
- (d) promote cost savings in infrastructure installation and maintenance by such techniques as reducing the distance over which utilities, such as water and sewer lines, need to be extended or by reducing the width or length of streets; and
- (e) provide opportunities for social interaction and walking and hiking in open space areas.

102. Definitions

As used in this ordinance, the following words and terms shall have the meanings specified herein:

Comment. *Please remember to consult your state statutes to employ definitions that are consistent with those statutes. These definitions were drawn from different sources and, while useful, may differ from those already established by your state legislation.*

"Affordable" means either a sales price that is within the means of a moderate-income household or a rental amount for housing that is within the means of a low-income household, as those terms are defined in this Section. In the case of dwelling units for sale, housing that is affordable is housing for which the mortgage, taxes, insurance, and fees are no more than [30] percent of the adjusted income for a household whose gross annual income is at or below [80] percent of the median for the area based on household size. In the case of rental housing, housing that is affordable is housing for which the monthly rental amount plus utility costs do not exceed [30] percent of the adjusted income for a household whose gross income is [50] percent of the area median household income adjusted for household size.

Comment. *Definitions of "affordable," "low-income household," and "moderate-income household" may need to be changed here and below. The definitions should comply with current requirements of the applicable federal or state construction or rehabilitation program. In particular, the bracketed percentages may be modified to affect the scope of the definition.*

"Buffer" means land maintained in either a natural or landscaped state and used to screen and/or mitigate the impacts of development on surrounding areas, properties, or rights-of-way.

"Building" means any structure used or intended for supporting or sheltering any use or occupancy.

"Cluster" or **"Clustering"** means a site-planning technique that concentrates buildings and structures in specific areas on a lot, site, or parcel to allow the remaining land to be used for recreation, open space, and/or preservation of features and/or structures with environmental, historical, cultural, or other significance. The techniques used to concentrate buildings may include, but shall not be limited to, reduction in lot areas, setback requirements, and/or bulk requirements, with the resultant open space being devoted by deed restrictions for one or more uses.

"Cluster development, residential" means a land development project in which the site planning technique of clustering dwelling units is employed.

"Common open space" means the portion of the site set aside in perpetuity as open space. This area may include coastal and freshwater wetlands, floodplains or flood-hazard areas, stream corridors, prime agricultural lands, habitats of endangered wildlife, as identified on applicable federal or state lists, scenic views, historical or cultural features, archaeological sites, or other elements to be protected from development, as well as easements for public utilities.

"Development" means the construction, reconstruction, conversion, structural alternation, relocation, or enlargement of any structure; any mine, excavation, landfill or land disturbance; and/or any change in use, or alteration or extension of the use, of land.

"Gross area" means the total area of the site, including the net buildable area and public rights-of-way.

"infrastructure" means the facilities and services needed to sustain residential, commercial, industrial, institutional, and other activities.

"Land development project" means a project in which one or more lots, tracts, or parcels of land are to be developed or redeveloped as a coordinated site for a complex of uses, units, or structures, including, but not limited to, planned development and/or cluster development for residential, commercial, institutional, recreational, open space, and or/mixed uses as are provided for in the zoning ordinance.

”Lot” means either: (a) the basic development unit for determination of area, depth, and other dimensional variations; or (b) a parcel of land whose boundaries have been established by some legal instrument, such as a recorded deed or recorded map, and recognized as a separate legal entity for purposes of transfer of title.

”Low-income household” means a household whose gross annual income does not exceed [50] percent of the area median as adjusted for household size.

”Moderate-income household” means a household whose gross annual income is less than [80] percent of the area median as adjusted for household size.

”Net buildable area” means the portion of the cluster development that may be developed or used for common open space, whether publicly dedicated or private, but excluding private streets, public streets, and other publicly dedicated improvements.

”Site plan” means the development plan for one or more lots on which is shown the existing and/or the proposed conditions of the lot.

”Street, private” means a local roadway serving only abutting lots, not publicly dedicated or maintained by the [local government] but meeting specific municipal improvement standards, and providing access for service and emergency vehicles.

”Street, public” means all public property reserved or dedicated for street traffic.

”Structure” means anything constructed or erected that requires location on the ground or attached to something having location on the ground.

103. Applicability; General Provisions

(1) A residential cluster development shall be permitted [as of right in any residential zoning district pursuant to this ordinance *or* as of right in the following zoning districts: *list district names*]:

(a) All principal and accessory uses authorized in the applicable residential zoning district(s) shall be allowed in the cluster development. In addition, multifamily dwellings, duplexes, and townhouses may be permitted for a cluster development located in a residential zoning district that does not otherwise allow attached dwelling units.

(b) Maximum lot coverage, floor area ratios, building height, and parking requirements for the applicable zoning district shall apply to the cluster development. Maximum lot coverage, floor area ratios, and parking requirements, however, shall be applied to the entire site rather than to any individual lot.

(2) The following provisions shall apply to any residential cluster development, regardless of the general requirements of the applicable residential zoning district:

(a) The minimum area of the cluster development shall be [two to five] acres.

Comment. *There is a fair degree of debate about whether the area of a cluster development should be limited. Because cluster development is fundamentally a design review process, in theory, the approach should be applicable to a site of any size. However, it may be that, for smaller sites, a cluster development may not yield any appreciable benefits over conventional subdivisions. Consequently, the decision to authorize cluster development will depend on the policy preferences of the individual local government.*

(b) No minimum width or depth of a lot shall apply.

(c) A minimum separation of [10] feet shall be provided between all principal buildings and structures.

(d) A minimum yard or common open space of a least [25] feet in depth shall be provided, as measured from all public streets and from the side and rear lot lines of the entire cluster development.

(e) Each lot shall have a minimum access of [12] feet to a public or private street. Such access may be shared with other lots.

(f) More than one principal building or structure may be placed on a lot.

(g) Not less than [25] percent of the site shall be conveyed as common open space in the manner provided for in Section [110] below. [Where the site contains floodplains and/or coastal or freshwater wetlands, not less than [50] percent of such floodplains and/or wetlands shall be included in calculating the common open space.]

Comment. *In some states, the identification of floodplains and coastal or freshwater wetlands occurs routinely as part of the land development and subdivision review process. Optional language in Section 103(2)(g) above requires that at least 50 percent of the floodplains and/or wetlands must be included as part of the common open space. By including the land designated as common open space, the calculation of net buildable area gives credit for the land area in which floodplains and wetlands that meet state criteria are located. This is intended to serve as an incentive to employ clustering by allowing the area represented by lands in floodplains and wetlands to be used in determining the maximum number of dwelling units.*

104. Contents of Site Plan

(1) The preliminary and final site plan for a residential cluster development shall include, but shall not be limited to, the following information:

- (a) The maximum number and type of dwelling units proposed
- (b) The areas of the site on which the dwelling units are to be constructed or are currently located and their size (this may take the form of the footprint of the dwelling unit or a building envelope showing the general area in which the dwelling unit is to be located)
- (c) The calculations for the permitted number of dwelling units, derived pursuant to Section [105] below
- (d) The areas of the site on which other proposed principal and accessory uses may be located and their size

Comment. *Uses other than residences may be located on the site. For example, the cluster development may include storage facilities, garages, and recreational buildings. Conceivably, a very large cluster development could also include sites for schools.*

- (e) The areas of the site designated for common open space and their size
- (f) The areas of the site designated for parking and loading and the size of individual spaces
- (g) The number and percentage of dwelling units, if any, that are proposed to be affordable
- (h) The location of sidewalks, trails, and bike paths.

Comment: *This model assumes the local government will require sidewalks as part of the public improvements required for subdivision.*

- (i) The number of acres that are proposed to be conveyed as common open space
- (j) *[Cite any other plans or information otherwise required by the local government for a major land development or subdivision in its land development or subdivision regulations, such as a plan for landscaping and screening.]*

105. Calculation of Permitted Number of Dwelling Units; Density Bonuses

(1) Except as provided in paragraph (3) below, the maximum numbers of dwelling units proposed for a residential cluster development shall not exceed the number of dwelling units otherwise permitted for the residential zoning district in which the parcel is located.

(2) Except as provided in paragraph (3) below, the number of permitted dwelling units on a site shall be calculated in the following manner.

Comment. *The calculations in paragraph (2) are intended to mirror those that a local government would normally employ for determining the maximum number of dwelling units permitted for nonclustered development. Some communities may subtract from the gross area of the cluster development land area in wetlands and/or floodplains, which will reduce the maximum number of dwelling units in the development.*

(a) Measure the gross area of the proposed cluster development site in acres and tenths of an acre.

(b) Subtract from the gross area determined in subparagraph (a) the area of public and private streets and other publicly dedicated improvements, measured in acres and tenths of an acre, excluding common open space (whether or not it is conveyed pursuant to Section [110] below). The remainder shall be the net buildable area;

(c) Convert the net buildable area from acres to square feet (SF), using the equivalency of 43,560 SF = 1 acre; and

(d) Divide the net buildable area by the smallest minimum lot size (in square feet) per unit for a dwelling unit permitted in the zoning district. This figure shall be rounded to the nearest lower number to establish the maximum number of dwelling units to be permitted in the cluster development.

(3) The [local planning commission] may approve an increase of up to [25] percent of the maximum number of dwelling units in the cluster development, as calculated in paragraph (2) above, if:

Comment. *The bonus provisions in paragraph (3) are a means by which a local government can ensure that new housing will benefit low- and moderate-income households and implement state goals for affordable housing. Indeed, should a local government decide it wants to more aggressively provide for affordable housing through cluster development (as well as open space conveyance), it might increase the density bonus from the suggested figure of 25 percent.*

(a) the percent of density bonus is no greater than the percent of dwelling units in the cluster development that are affordable units; and/or

(b) the percent of density bonus is no greater than the percent of the gross area of the cluster development that is both:

1. set aside as and conveyed as common open space pursuant to Section [110] below; and
2. accessible to the public.

Comment. *Note that only when the common open space is both conveyed and is accessible to the public is a density bonus justified. If the common open space was simply conveyed to a private entity (as opposed to the local government), but there was no public access, a density bonus could not be approved.*

106. Procedures for Review

(1) The [local planning commission] shall review and approve a residential cluster development and any amendments thereto as a land development project in the manner provided for in [*cite applicable state statute*], together with any ordinances and regulations adopted pursuant thereto and appearing in [*cite applicable local land development regulations*].

107. Review Criteria

(1) In reviewing a residential cluster development, the [local planning commission] shall determine whether:

- (a) the site plan satisfies the requirements of Sections [103], [104], and [105] above;
- (b) buildings and structures are adequately grouped so at least [25] percent of the total area of the site is set aside as common open space. To the greatest degree practicable, common open space shall be designated as a single block and not divided into unconnected small parcels located in various parts of the development;
- (c) pedestrians can easily access common open space;
- (d) the site plan establishes, where applicable, an upland buffer of vegetation of at least [50] feet in depth adjacent to wetlands and surface waters, including creeks, streams, springs, lakes, and ponds;
- (e) individual lots, buildings, structures, streets, and parking areas are situated to minimize the alteration of natural features, natural vegetation, and topography;
- (f) existing scenic views or vistas are permitted to remain unobstructed, especially from public streets;

- (g) the site plan accommodates and preserves any features of historic, cultural, or archaeological value;
- (h) floodplains, wetlands, and areas with slopes in excess of [25] percent are protected from development;
- (i) the cluster development advances the purposes of this ordinance as stated in Section [101] above; and
- (j) *[other, such as contiguity requirement for common open space]*.

(2) The [local planning commission] may, in its opinion, apply such special conditions or stipulations to its approval of a residential cluster development as may be required to maintain harmony with neighboring uses and to promote the objectives and purposes of the comprehensive plan and the zoning and subdivision ordinances.

(3) If the [local planning commission] finds that the requirements of paragraph (1) above are satisfied, it shall approve the residential cluster development, subject to any special conditions or stipulations pursuant to paragraph (2) above, any density bonus pursuant to Section [105] above, and any reductions [and/or waivers] pursuant to Section [108] below.

Comment. *While these review criteria are intended to guide the planning commission in the evaluation of the proposed cluster development, they cannot replace a sensitive and creative site planner who has the responsibility of designing cluster development or an experienced professional planner whose responsibility it is to review the proposal and advise the planning commission on necessary design changes.*

108. Reduction [and/or Waiver] of Certain Physical Design Requirements

(1) In approving a residential cluster development, the [local planning commission] may reduce the pavement width of any public or private streets that would otherwise be required by the [subdivision regulations *or other design specifications for roads*] to [22] feet.

(2) An applicant who wants the reduction of pavement width of public or private streets as provided for in paragraph (1) above, shall submit a statement of justification for the reduction [and/or waiver] along with the final site plan.

Comment. *Most local governments have adopted standard design specifications for streets. This Section allows the planning commission to reduce street pavement widths in order to minimize impervious surfaces on the site as well as limit the portions of the site that must be regraded to accommodate wider streets. If a street proposed in a cluster development is to be used as a connector from an adjoining development or as a through street, it is probably not a candidate for a reduction in width. There is no firm rule, however, on when a reduction or waiver should be allowed and determinations should be made on a case-by-case basis.*

The 22-foot pavement width shown in brackets assumes a 15-foot travel lane and a seven-foot parking area. If parking were desired on both sides of the street, a 28-foot pavement would accommodate two seven-foot parking lanes and a 14-foot wide travel lane (Southworth and Ben-Joseph 1997; Livable Oregon n.d.; Ewing 1996, 69-72).

109. Controls on Resale and Re-rental of Affordable Housing Units Used as Basis for Density Bonus

(1) Affordable dwelling units used as the basis for approving a density bonus in Section [105] above shall be subject to a deed restriction and a mortgage lien to ensure that newly constructed low- and moderate-income sales and rental units remain affordable to low- and moderate-income households for a period of not less than [30] years, which period may be renewed.

(2) The deed restriction and mortgage lien shall be approved by the [local government] law director and shall be enforceable by the [local government] through legal and equitable remedies.

Comment. *If the density bonus is to be given on the basis of a guarantee of the provision of affordable housing, there must be a mechanism that ensures the housing, whether it is for sale or for rent, will remain affordable for a reasonable period of time. This is done through a deed restriction and mortgage lien approved by the local government's law director (New Jersey n.d.).*

110. Conveyance of Open Space

(1) Common open space provided by a residential cluster development shall be conveyed as follows:

(a) To the [local government] and accepted by it for park, open space, agricultural, or other specified use or uses, provided that the conveyance is approved by the [local planning commission] and is in a form approved by the [local government] law director; or

(b) To a nonprofit organization whose principal purpose is the conservation of open space, to a corporation or trust owned or to be owned by the owners of lots or dwelling units within the residential cluster development, or to owners of shares within a cooperative development. If such a corporation or trust is used, ownership shall pass with the conveyances of the lots or dwelling units. The conveyance shall be approved by the [local planning commission] and shall be in a form approved by the [local government's] law director (see Diehl et al. 1988 for model language for easements).

(2) In any case, where the common open space in a residential cluster development is conveyed pursuant to subparagraph (1)(b) above, a deed restriction enforceable by the [local government] shall be recorded that provides that the common open space shall:

(a) be kept in the authorized conditions(s); and

(b) not be developed for principal uses, accessory uses (e.g., parking), or roadways.

References for Section 4.7, Model Residential Cluster Development Ordinance

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