

**PVPC MODEL BYLAW
BY-RIGHT CLUSTER ZONING BYLAW**

**Prepared by Pioneer Valley Planning Commission
Revised: October 2001**

1.00 Cluster Development

1.01 Cluster Development Allowed By Right

Cluster Development in accordance with this bylaw shall be allowed by right in Residence Zones ____, except not in the Floodplain District. Cluster development shall mean a residential development in which single family residences are clustered together, adjacent to permanently preserved open space.

1.02 Purposes

The purposes of cluster development are to:

1. allow for greater flexibility and creativity in the design of residential subdivisions, provided that the overall density of the development is no greater than what is normally allowed in the district;
2. encourage the permanent preservation of open space, agricultural lands, forest lands and other natural resources and encourage a less sprawling form of development that consumes less open land;
3. maintain the traditional New England rural character and land use pattern in which small villages contrast with open space and farmlands;
4. facilitate the construction of streets, utilities and public services in a more economical and efficient manner;
5. ensure that residential developments respect the natural features of the land, including wetlands, watercourses, forests, prime agricultural land, steep slopes, plants, wildlife, historic sites, scenic areas, and rural character;
6. encourage development out of view from the road, and promote alternatives to strip residential development lining roadsides in the town.
7. provide wildlife corridors connecting open spaces, needed by wildlife to ensure their survival.

1.03 Net Developable Area

1. The net developable area of a parcel for cluster development shall be the total area of all lots shown to be developable under Town of _____ Subdivision Regulations and zoning, and shall be calculated by the following procedure:
 - a. The area of those lots which is determined to be not suitable for on-site sewage disposal shall be subtracted from the developable area of the total parcel.
 - b. Under the supervision of the Conservation Commission, the total acreage of all wetlands, in accordance with the Wetlands Protection Act, M.G.L. Chapter 131, Section 40, shall be identified and their area subtracted from the developable area of the total parcel.

1.04 Flexible Area in Cluster Developments

1. Individual lot areas may be as small as the minimum lot sizes shown in Table 1, provided that the average size for all lots created, including any land reserved as open space, shall be no smaller than the required average lot size, shown in Table 1.
2. The total number of building lots which can be created from any parcel shall be determined by dividing the net developable area (see Section 1.04) by the required average lot size shown in Table 1.
3. All land not used for building lots shall be placed in permanent open space in accordance with Section 1.09 of this bylaw, but not less than 40% of the total parcel area.

1.05 Flexible Frontage in Cluster Developments

1. The frontage of the parcel from which the lots of a cluster development are created (whether or not by subdivision) shall equal or exceed 60 feet for each lot created in the cluster development, as shown in the Table of Cluster Development Dimensional Requirements (Table 1). *[For example, to create a six-lot cluster in a typical R-6 District, the original parcel must have a minimum of 360 foot contiguous frontage along a public way.]*
2. Provided that all other requirements of this bylaw are met, there shall be no frontage required for individual lots within a cluster development, with the exception described in Section 1.05-3 below. Each lot shall have adequate access on a public way (optional: or a common driveway) which meets the standards in this Section.
3. To the extent feasible, all buildings shall be located out of view from any road, and protected open space shall be located adjacent to public ways. Any building lot

which fronts on an existing public road shall have the frontage normally required in the zoning district.

1.06 Dimensional Requirements and Landscaped Buffer

1. All lots within a cluster development shall meet the front, rear and side yard requirements specified in Table 1.
2. All residential structures and accessory uses shall be set back from the boundaries of the development by a buffer strip of at least fifty (50) feet in width which shall include trees and shall be kept in a natural or landscaped condition.

1.07 Site Design Standards

1. Each structure shall be integrated into the existing landscape on the property so as to minimize its visual impact through use of vegetative and structural screening, landscaping, grading, and placement on or into the surface of the lot.
2. Lots shall be laid out and designed, to the greatest extent feasible, to preserve and protect historic and archaeological sites, farmland, wooded stream corridors, forested areas and large trees, scenic views particularly as seen from public roads, ridgelines and hilltops.
3. All buildings, roads and driveways shall be located away from soils which are most suitable for agriculture (based on U.S. Soil Conservation Service classifications for prime farmland soils and soils of state and local importance) to the maximum practical extent. This provision does not apply to the location of on-site septic disposal facilities which must be placed in soils meeting the Massachusetts Environmental Code.

1.08 Utility Requirements

1. On-site Sewage Disposal

The following standards shall apply to developments requiring on-site sewage disposal:

- a. The applicant shall submit a septic system design prepared by a certified engineer and approved by the Board of Health and a plan illustrating the location of water supply wells with the special permit application.
- b. All cluster developments must meet the minimum state Environmental Code (Title V) requirements for minimum setbacks between private water supply wells and septic tanks or soil absorption systems (310 CMR 15.211).

c. All cluster developments must meet the minimum state Environmental Code (Title V) requirements for nitrogen loading limitations (310 CMR 15.214-15.217). For cluster developments with individual lot sizes less than 40,000 square feet, applicants must meet the following standards:

(1) Applicants must designate, on a plan, specific areas of common open space as "nitrogen credit land", based on the following equation:

$$(40,000 \text{ square feet} \times \text{number of lots}) - (\text{total square feet in proposed cluster lots}) = \text{square feet of required nitrogen credit land in common open space}$$

(2) Nitrogen credit land must meet DEP qualifications contained in "Guidelines for Title 5 Aggregation of Flows and Nitrogen Loading 310CMR15.216" including, but not limited, to the following qualifications:

- Must be restricted to prohibit man-made sources of nitrogen, including sewage discharge, nitrogen-based fertilizer or raising and grazing of livestock;
- Must be restricted to prohibit artificially rendered imperviousness (i.e. paved streets, paved parking lots, buildings, structures, etc.);
- Not within a Velocity Zone or Regulatory Floodway identified by FEMA;
- Not under surface water;
- Not already being used as nitrogen credit land.

(3) All designated nitrogen credit land must be permanently restricted from further development under a "Grant of Title 5 Nitrogen Loading Restriction and Easement on Nitrogen Credit Land".

After approval of the cluster Final Subdivision Plan, applicants must apply to the Board of Health and the Mass. Department of Environmental Protection (DEP) for an aggregate determination of nitrogen loading under 310 CMR 15.216.

d. It is required that septic systems be installed on individually-owned lots.

2. Water Supply

a. In order to meet state Title V requirements for separation distances between drinking water wells and septic systems, private drinking water supply wells may be located in the common open space for a cluster development,

provided that the provisions of Section 1.10 for a homeowner's association are met.

1.09 Common Open Space

1. Common Open Space Requirements

- a. A minimum of 40% of the total development parcel must be permanently protected as common open space. At least 70% of the common open space shall be retained in contiguous areas, unless approved by the Planning Board.
- b. Watercourses, lakes, ponds, wetlands and steep slopes over 25% may not be included in common open space calculations.
- c. The Planning Board may permit up to three (3) percent of the open space area to be paved or built upon for structures accessory to the dedicated use of open space (i.e. pedestrian walks, bicycle paths, playgrounds, farm-related structures).

2. Land Protection Methods for Common Open Space

- a. All land not devoted to buildings, lots, roads and other development shall be permanently protected as common open space for recreation, conservation, forestry or agricultural uses which preserve the land in essentially its natural condition, by the following method:
 - (1) The land shall be owned by a homeowner's association, and a permanent conservation easement or deed restriction must be conveyed to the Town, with Town approval, or to a non-profit trust or conservation organization whose principal purpose is to conserve farmland or open space.
- b. Further subdivision of common open land or its use other than recreation, conservation, forest or agriculture, except for easements for underground utilities or drinking water supply wells, shall be prohibited.

1.10 Homeowner's Association

1. A non-profit, homeowner's association shall be established, requiring membership of each lot owner in the cluster development. The association shall be responsible for the permanent maintenance of all common lands, common open space, recreational and thoroughfare facilities, except drinking water wells. If any drinking water well is located on common open space, the homeowners shall own the well and be responsible for any maintenance or related costs associated with their well. A homeowner's association agreement or covenant shall be submitted with the final

subdivision application guaranteeing continuing maintenance of such common utilities, land and facilities, and assessing each lot a share of maintenance expenses. Such agreement shall be subject to the review and approval of Town Council and the Planning Board, and shall be recorded in the _____ County Registry of Deeds. Such agreements or covenants shall provide that in the event that the association fails to maintain the common open land in reasonable order and condition in accordance with the agreement, the town may, after notice to the association and public hearing, enter upon such land and maintain it in order to preserve taxable values of the properties within the development and to prevent the common land from becoming a public nuisance. The covenants shall also provide that the cost of such maintenance by the town shall be assessed equally against each of the properties within the development.

1.11 Stormwater Management

The Planning Board shall encourage the use of non-structural stormwater management techniques and other drainage systems that reduce impervious surfaces and enable infiltration where appropriate.

1. Stormwater management systems serving the cluster subdivision may be located within the required common open space. Surface systems, such as retention and detention ponds, shall not qualify towards the minimum open space requirement.

1.12 Subdivision Approval Procedures

1. Applicants for cluster development projects shall follow all procedures specified in the the Town of _____ Subdivision regulations.
2. Reviewing agencies

The Planning Board shall submit copies of the preliminary and final subdivision plans to the Board of Health, Conservation Commission, Highway or Public Works Superintendent, Chief of Police, Fire Chief and the Town Engineer for review and comment.

Table 1: Dimensional and Density Requirements for Cluster Development

Zone	Min. Lot Area for Standard Sub-division (sq.ft)	Cluster Min. Lot Area (sq. ft.)	Cluster Average Lot Area (sq. ft.) ²	Cluster Min. Common Open Space (percent)	Min. Frontage for Standard Sub-division (ft.)	Cluster Min. Frontage for Individual Lots (ft.)	Cluster Min. Front Setback (ft.)	Cluster Min. Rear Setback (ft.)	Cluster Min. Side Setback (ft.)	Cluster Min. Distance Between Buildings (ft.)	Cluster Maximum Impervious Surface Coverage of Buildable Land (percent)
R-4	40,000	20,000 ¹	40,000	40	170	40	40	40	10	20	25
R-6	60,000	30,000 ¹	60,000	40	200	40	40	50	10	20	25

¹ All cluster developments must meet minimum state Environmental Code (Title V) requirements, as described in Section 1.08.

² Calculations for average lot areas shall be computed by adding the lot sizes for all lots in the cluster development subdivision, plus common open space, as described in Section 1.09, and dividing by the total number of lots.

³ The frontage of the parcel from which the lot of a cluster development is created shall equal or exceed at least 60 feet per developable lot created in the R-4 district and the R-6 district.