

CITY OF CHESAPEAKE PLANNING DEPARTMENT

CURRENT PLANNING DIVISION | SUBDIVISION ADMINISTRATION
306 CEDAR ROAD | SECOND FLOOR | 757-382-6176

CLUSTER DEVELOPMENT: NECESSARY STEPS

*ALL STEPS MUST BE COMPLETED FOR EACH PROPOSED CLUSTER DEVELOPMENT**

*ALL CLUSTER DEVELOPMENTS MUST COMPLY WITH ARTICLE VI OF THE CITY
SUBDIVISION ORDINANCE AND SECTION 6-2200 OF THE CITY ZONING ORDINANCE***

<u>STEP</u>	<u>PRE-APPLICATION MEETING AND ANALYSIS MAP</u>	<u>LIMITED ADDITIONAL INFORMATION</u> <i>See Article VI of the City Subdivision Ordinance for Specifics</i>
1	<p>In accordance with Section 70-203 of the City Subdivision Ordinance a <i>Resources and Site Analysis Map</i> must be prepared by the applicant AND presented to city staff at this meeting.</p>	<p>A pre-application meeting is required between the applicant, the site designer, and city staff to:</p> <ul style="list-style-type: none">• Introduce the applicant to the city's zoning and subdivision ordinances, regulations and procedures;• To discuss the applicant's objectives; and• To schedule site inspections, meetings, and plan submissions. <p>Applicants shall be required to present the existing resources and site analysis map, prepared in accordance with section 70-203 at this meeting.</p> <p style="text-align: right;"><i>Code Reference: CSO 70-202-203 City Subdivision Ordinance (CSO)</i></p>

* Step 7 may not be required for all proposed cluster developments

** Additional City, State, and Federal codes, laws, and policies, are also applicable to cluster developments

<p><u>STEP</u> 2</p>	<p><u>SITE INSPECTION</u> <u>CONFERENCE</u></p>	<p><u>LIMITED ADDITIONAL INFORMATION</u> <i>See Article VI of the City Subdivision Ordinance for Specifics</i></p> <p>After preparing the existing <i>Resources and Site Analysis Map</i>, the applicant shall arrange for a site inspection of the property by city staff and shall make copies of the map available at that on-site meeting.</p> <p>The purpose of the site visit is:</p> <ul style="list-style-type: none"> • To familiarize local officials with the property's existing conditions and special features, and • To identify potential site design issues; and • To provide an informal opportunity to discuss site design concepts, including the general layout of designated conservation land and potential locations for proposed buildings and street alignments. <p>It shall be understood by all parties that no formal recommendations will be offered, and no official decisions can be made at the site inspection.</p> <p><i>Code Reference: CSO 70-204(a)</i></p>
<p><u>STEP</u> 3</p>	<p><u>POST INSPECTION</u> <u>CONFERENCE</u></p> <p>All applicants are strongly advised to review the <i>Four Step Process</i> described in Section 70-210 of the City Subdivision Ordinance.</p>	<p><u>LIMITED ADDITIONAL INFORMATION</u> <i>See Article VI of the City Subdivision Ordinance for Specifics</i></p> <p>Following the site inspection, and prior to the submission of the Sketch Plan Overlay Sheet, the applicant shall meet with city staff to:</p> <ul style="list-style-type: none"> • Discuss the findings of the site inspection • Develop a mutual understanding on the general approach for subdividing and developing the tract in accordance with the four-step design process described in sections 70-210 of this ordinance. • At the discretion of the planning director or designee, this conference may be combined with the site inspection. <p><i>Code Reference: CSO 70-204(b)</i></p>

<p><u>STEP</u> 4</p>	<p><u>SKETCH PLAN SUBMITTAL</u></p> <p>In accordance with Section 70-205 of the City Subdivision Ordinance, a Sketch Plan of the proposal shall be submitted to the Planning Department for review.</p> <p>The plan shall include all content requirements detailed in Section 70-205 of the City Subdivision Ordinance.</p>	<p><u>LIMITED ADDITIONAL INFORMATION</u> <i>See Article VI of the City Subdivision Ordinance for Specifics</i></p> <p>Purpose:</p> <ul style="list-style-type: none"> • A sketch plan shall be submitted by the applicant as a diagrammatic basis for informal discussion with the planning director, or designee, regarding the design of a proposed cluster development. • The sketch plan also serves as a means of helping applicants establish an overall design approach that preserves special or noteworthy features to the greatest extent possible, while providing for the density necessary as required by the City Zoning Ordinance. <p><i>Code Reference: CSO 70-205(a)(b)(c)</i></p>
<p><u>STEP</u> 5</p>	<p><u>PRELIMINARY SUBDIVISION PLAN AND ACCOMPANYING COMPONENTS</u></p> <p>In addition to the Existing Resources and Site Analysis Map and the Sketch Plan described in Steps 1 and 4, the applicant shall submit a preliminary subdivision plan also known as a preliminary plan</p>	<p><u>LIMITED ADDITIONAL INFORMATION</u> <i>See Article VI of the City Subdivision Ordinance for Specifics</i></p> <p>The following components of the Preliminary Subdivision Plan are required:</p> <ol style="list-style-type: none"> 1. Site Context Map 2. Preliminary Resource Impact and Conservation Plan 3. Preliminary Improvements Plan 4. Preliminary Studies and Reports 5. Preliminary Conservation Land Ownership and Management Plan <p><i>Code Reference: CSO 70-206(a)</i></p>
<p><u>STEP</u> 6</p>	<p><u>PRELIMINARY ENGINEERING CERTIFICATION</u></p> <p>Prior to approval of the Preliminary Plan (Step 5), the applicant must submit a Preliminary Engineering Certification</p>	<p><u>LIMITED ADDITIONAL INFORMATION</u> <i>See Article VI of the City Subdivision Ordinance for Specifics</i></p> <p>At minimum, the preliminary engineering certification shall:</p> <ul style="list-style-type: none"> • Verify the approximate layout of the proposed streets, home lots, and conservation land while also demonstrating compliance with the City Zoning Ordinance and the City Subdivision Ordinance.

		<ul style="list-style-type: none"> • Provide the Planning Director, or designee, the assurance that the preliminary plan can be accomplished in conformance with the city's current ordinances and regulations. • Note any waivers, variances or modifications to city standards needed to implement the preliminary plan as drawn, along with the authority and approval agent for such waiver, variance or modification. <p style="text-align: right;"><i>Code Reference: CSO 70-206(b)</i></p>
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<p><u>STEP</u> 7</p>	<p><u>DEVELOPMENTS REQUIRING A</u> <u>CONDITIONAL USE PERMIT</u></p>	<p><u>LIMITED ADDITIONAL INFORMATION</u> <i>See Article VI of the City Subdivision Ordinance for Specifics</i></p> <p>In addition to the items listed in steps 1 through 6, the following are required for applications in need of a conditional use permit for an increase in allowable density, as specified in section 6-2200 of the City Zoning Ordinance.</p> <p>To assist in determination of the impact of the proposed cluster development on city services and facilities, the following are required:</p> <ol style="list-style-type: none"> 1. Sewer and water feasibility report. 2. School feasibility report. 3. Traffic impact study. 4. Groundwater protection and replenishment study. <p style="text-align: right;"><i>Code Reference: CSO 70-206(c)</i></p>
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<p><u>STEP</u> 8</p>	<p><u>FINAL SUBDIVISION PLANS</u></p> <p>Upon approval of the preliminary plan, a final subdivision plan ("final plan") for the cluster development shall be submitted.</p> <p>The final plan shall be in substantial conformance with the approved preliminary plan for the cluster development.</p>	<p><u>LIMITED ADDITIONAL INFORMATION</u> <i>See Article VI of the City Subdivision Ordinance for Specifics</i></p> <p>The Final Plan must include:</p> <ol style="list-style-type: none"> 1. Final existing resources and site analysis map. 2. Final resource impact and conservation plan. 3. Final conservation land ownership and management plan. 4. Final construction plan/address plans. 5. Additional approvals, certificates, and documents. <p style="text-align: right;"><i>Code Reference: CSO 70-207(a-g)</i></p>
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THE FOLLOWING PAGES CONTAIN THE CITY SUBDIVISION ORDINANCE CODE SECTIONS PERTAINING TO THE FOUR-STEP DESIGN PROCESS, RESOURCE CONSERVATION AND CONSERVATION LAND DELINEATION STANDARDS, STREET LAYOUT, CONSERVATION LAND DESIGN STANDARDS, AND OTHER CLUSTER DESIGN REQUIREMENTS

CSO - Sec. 70-211. - Design process for residential development and conservation land.

Four-step design process. All cluster developments shall follow a four-step design process as described below. Applicants will be required to document the design process as part of the preliminary plan submission.

1. Step 1: Designation of conservation land.

a. The minimum percentage and acreage of required conservation land shall be calculated by the applicant and submitted as part of the preliminary plan in accordance with the provisions of this article and section 6-2200 of the zoning ordinance. Required conservation land shall be shown on the preliminary plan as SCAs. Designated conservation land shall also include all PCAs.

b. The proposed conservation land shall be designated using the existing resources and site analysis map as a base document for ensuring compliance with section 6-2200 of the zoning ordinance. The city's map of potential conservation lands in the comprehensive plan shall also be referenced and considered. PCAs shall include all floodplains, water features, tidal wetlands, and Chesapeake Bay preservation area (CBPA) resource protection areas, as well as other areas listed in section 5-600 of the zoning ordinance as being deducted from the total parcel acreage calculating net developable area.

c. In delineating SCAs, as defined in the zoning ordinance, the applicant shall prioritize natural and cultural resources, including historical structures and sites and non-tidal wetlands, in terms of their highest to least suitability for inclusion in the proposed conservation land, in consultation with the planning director or designee, and in accordance with [section 70-211](#) below ("Prioritized List of Resources to be Conserved" and "Other Design Considerations").

d. SCAs shall be delineated to meet at least the minimum area percentage requirements for required conservation land in a manner clearly indicating their boundaries as well as the types of resources included within them. Such delineation shall be based on prioritized resources, practical consideration of the property's configuration, the property's relation to resources on adjoining properties, the applicant's objectives, and staff recommendations.

2. Step 2: Location of home sites. Potential home sites shall be tentatively located using the proposed delineation of conservation land as a base map, as well as other relevant data on the existing resources and site analysis map, such as topography and soils. Home sites shall not be located closer than 100 feet from PCAs or 50 feet from SCAs, taking into consideration the potential negative impacts of residential development on such areas, as well as the potential positive benefits of such locations to provide attractive views and visual settings for residences.

3. Step 3: Alignment of streets and trails. Once home sites are identified, the applicant shall delineate a street system to provide vehicular access to each home in a manner conforming to natural topography and providing for a safe pattern of circulation and ingress and egress. Streets shall avoid or at least minimize adverse impacts to the designated conservation land. To the greatest extent practicable, new streets or

driveways shall not cross conservation lands or traverse slopes over 15 percent. Street connections shall generally be encourage to minimize the number of new cul-de-sac to be maintained by the city and to facilitate easy access to and from homes in different parts of the tract and on adjoining parcels. A tentative network of recreational trails shall also be shown, connecting streets with various natural and cultural features in the designated conservation land. Potential trail connections to adjacent parcels shall also be shown in areas where a city trail network is envisioned.

4. *Step 4: Design of lot lines.* Lot lines for the residential lots should be drawn as the last step in the design procedure. Lot lines should follow the configuration of home sites and streets in a logical manner.

CSO - Sec. 70-209. - Resource conservation and conservation land delineation standards.

The following standards for conservation land delineation shall apply to all residential cluster developments in the city.

A. *General standards to minimize adverse impacts.* All cluster developments shall avoid or minimize adverse impacts on the city's natural, cultural, and historic resources.

B. *Groundwater resources.* In order to ensure that the city's limited groundwater resources are protected, the proposed cluster development shall be designed to cause the least practicable disturbance to natural infiltration and percolation of precipitation to the groundwater table. This shall be accomplished through limitation of land disturbance activities and the careful planning and placement of streets, buildings, and other impervious surfaces.

C. Chesapeake Bay preservation areas, wetlands, floodplains and other sensitive areas. The city's Chesapeake Bay preservation area district map and map of preservation areas describe and depict water features, wetlands, resource protection areas and other sensitive natural features as resources that warrant land use management to promote groundwater recharge functions, water quality protection and the health of aquatic communities and wildlife habitats. Such areas are generally poorly suited for subsurface sewage disposal systems. Accordingly, Chesapeake Bay preservation areas, tidal wetlands, floodplains, and other lowlands warrant designation as conservation land. In certain instances, seasonal high water table soils may be excluded from the designated conservation land where the applicant can demonstrate that they are suitable for low density residential uses with on-site sewage systems.

D. *Woodlands.*

1. *Benefits.* Woodlands occur extensively throughout the city, often in association with stream corridors, wetlands, and poor and erodible agricultural soils. Woodland conditions within the city vary with respect to species composition, age, inventory, and health. They range from relatively recent post-agricultural young stands to mature mixed-age forests. Most woodlands in the city represent one or more of the following resource values:

- a. As soil stabilizers, particularly on moderate to steep slopes, thereby controlling erosion into nearby streams, ponds, impoundments, and roads.
- b. As a means of enhancing groundwater recharge.
- c. As a means of ameliorating harsh microclimatic conditions promoting energy conservation and providing stormwater retention in all seasons.
- d. As a source of wood products.
- e. As habitats for woodland birds, mammals and other wildlife.

f. As recreation resources for walkers, equestrians, bikers, and other related outdoor activities.

g. As visual buffers between areas of development and adjacent roads and properties.

2. *Assessment.* Because of their resource values, all woodlands on any tract proposed for cluster development shall be evaluated by the applicant to determine the extent to which such woodlands should be designated partly or entirely as conservation land. Evaluation criteria shall include:

a. Configuration and size.

b. Present conditions (e.g., inventory, health, and species composition).

c. Site potential (e.g., capability to support woodlands based on topographic, soil, and hydrologic characteristics).

d. Ecological functions in protecting steep slopes and erodible soils, maintaining stream quality, and providing wildlife habitats.

e. Relationship to woodlands on adjoining and nearby properties and the potential for maintaining continuous woodland areas or corridors.

3. *Report.* The evaluation of the tract's woodlands shall be undertaken by a forester, landscape architect, horticulturist, or other qualified professional. This evaluation shall be submitted as a report and made a part of the final plan. At a minimum, the report shall include one or more maps indicating boundaries and conditions of woodland areas accompanied by a report addressing the criteria listed above.

4. *Preservation.* In designing a cluster development, the applicant shall be guided by the following standards:

a. Healthy woodlands exceeding one acre shall be preserved and designated as conservation land to the maximum extent possible. Proposed site improvements shall be located, designed, and constructed to minimize the loss or degradation of woodland areas.

b. Cluster developments shall be designed to preserve woodlands along streets, trails, property linear-type features on a site, such as streams, swales, fences, and hedgerows. Such features and the native vegetation associated with them shall be preserved as buffers between adjacent properties and areas being subdivided for residential cluster development.

c. Preservation shall include ground cover, shrubbery, understory and canopy vegetation.

d. Disturbance or removal of woodlands designated as conservation land shall be permitted only when expressly approved by the director of development and permits, or designee. Disturbance shall be on a limited and selective basis to minimize the adverse impacts of such actions. This approval shall include, but not necessarily be limited to, trees and other vegetation performing important soil stabilizing functions on wet soils, stream banks and sloping land.

e. No clearing or land disturbance (except as necessary for sewage disposal systems) shall be permitted on a site before the approval of final plan approval. In addition, determination of sight distance clearances along streets shall be made graphically and not by clearing on site prior to final subdivision plan approval.

E. *Upland rural agricultural areas.* Upland rural agricultural areas include fields, pastures, meadows, and former agricultural areas in early stages of woodlands succession, typically bordered by streams and upland woodlands. Such areas constitute the city's historic working landscape and may be dotted with historic houses, barns, fences, stone walls and other structures. Upland rural agricultural areas give the city much of its rural character. They also contain the greatest concentration of prime agricultural soils. Because of

openness and high visibility, development in these upland rural agricultural areas is likely to be most readily seen and disruptive to the historic and natural landscape. These areas sometimes provide habitat for wildlife, in conjunction with nearby woodland and streams. Accordingly, where feasible, these areas should be incorporated into the designated conservation land.

F. *Significant natural areas and features.* Natural areas containing rare or endangered plants and animals, as well as other features of natural significance, exist throughout the city. Some natural areas have been carefully documented through the department of conservation and recreation, natural heritage division, whereas in other cases, only general locations are known. Applicants shall take all reasonable measures to protect significant natural areas and features identified by the city's map of potential conservation areas or shown on the existing resources and site analysis map by incorporating them into the designated conservation land or, at a minimum, avoiding their disturbance in areas proposed for development.

G. *Historic buildings, structures and sites.* Care should be taken to preserve remaining buildings, structures and sites with historic significance. Records of the city's remaining historic and archeological sites are maintained by the Virginia Department of Historic Resources and by the department of planning. Plans for cluster development approval shall be designed to protect existing historic resources of all classes. The protection of existing historic resources shall include conservation of the landscape immediately associated with, and significant to, the resource as necessary to preserve its historic context. Where, in the opinion of planning director or designee, a cluster development may have an adverse impact on a historic resource, the applicant shall take steps to mitigate the negative impact to the satisfaction of the city by modifying the cluster design, relocating proposed lot lines, providing landscape buffers, or designating the area as part of the required conservation land.

H. *Scenic byway corridors and scenic viewsheds.* The city's comprehensive plan identifies scenic byways in various parts of the city. All applications for cluster development shall attempt to preserve the scenic visual corridors along such roads by incorporating them into designated conservation land or otherwise providing for building setbacks and architectural designs to minimize intrusion. In instances in which such design fails to satisfactorily protect corridors, an applicant will be required to provide natural landscape buffers to minimize adverse visual impacts. The vegetative species designated for such buffers shall be based on the use of native species to the greatest extent feasible, as approved by the director of development permits, or designee.

I. *Trails.*

1. *Existing trails.* When a cluster development proposal is traversed by or abuts a trail customarily used by pedestrians, cyclists and/or equestrians, or one that is shown on the city's trail plan, the planning director or designee may require the applicant to make provisions for continued use of the trail. The applicant may later alter the course of the trail within the tract for which the cluster development is proposed under the following conditions:

- a. The points at which the trail enters and exits the tract remain unchanged;
- b. The proposed alteration exhibits quality trail design according to generally accepted principles of landscape architecture; and
- c. The proposed alteration does not coincide with an existing or proposed street intended for use by motorized vehicles.

2. *Conservation.* Trails intended for public or private use shall be protected by a permanent conservation easement. The width of the protected area in which the trail is located shall be a minimum of ten feet or the existing width of the trail, whichever is greater. The language of the conservation easement shall be

approved by the city attorney. Any land area permanently designated for trails for public use may be credited toward the required conservation land under section 6-2200 of the zoning ordinance.

3. *Improvements.* Trail improvements shall adhere to principles of quality trail design, including, but not limited to:

a. Trails shall have a vertical clearance of no less than ten feet.

b. The width of the trail surface may vary depending upon the type of use to be accommodated, but in no case shall the improved surface be less than five feet wide.

c. No trail shall be designed or preserved with the intent to accommodate motorized vehicles, nor shall any such trail be used by motorized vehicles.

CSO - Sec. 70-210. - Street layout.

A. Street layout in residential cluster developments.

1. *Street arrangement and relation to topography.* The location of streets should respect the natural features and topography of the site.

2. *Cul-de-sac.* Although cul-de-sac in cluster developments are strongly discouraged, the use of cul-de-sac is sometimes warranted in order to protect special natural features. Cul-de-sac shall not be longer than 500 feet or ten times the minimum lot width for the zoning district, whichever is greater. The distance of a cul-de-sac shall be measured from the centerline intersection to the center point of the cul-de-sac. The turnaround circle of each cul-de-sac shall be of adequate size to accommodate a required landscaped island at its center. These islands shall be planted with large canopy shade trees of type and species recommended in the landscape provisions in article 19 and section 6-2200 of the zoning ordinance. The requirement for a center island may be waived by the director of planning or designee where necessary for school bus turnaround.

3. *Loop lanes and turning-Ts.* Alternatives to the use of cul-de-sac include the use of loop lanes and "turning Ts" (hammerhead turn-arounds). Loop lanes shall be designed as two one-way lanes, separated by a central bio-retention area or planting strip at least 60 feet wide. Such streets shall be limited in length to a maximum of 700 feet. Turning-Ts shall be limited to streets no longer than one-fourth mile in length.

4. *Pavement width.* All minimum pavement widths shall meet the requirements of the city public facilities manual or the statewide fire prevention code, whichever is more stringent.

5. On-street parking.

a. Where on-street parking is permitted, the applicant shall be responsible for installing "No Parking" signs in accordance with the direction of the director of development and permits, or designee, prior to the issuance of a certificate of occupancy for the first dwelling unit in the cluster development.

b. Where permitted, on-street parking spaces shall be delineated on the final plan and marked on the street by the applicant.

6. *Alleys.* Alleys shall be permitted with appropriate dimensions, including minimum widths set forth in the zoning ordinance, as determined by the director of development and permits, or designee, and in accordance with applicable landscaping standards.

7. *Reverse curves.* Reverse curves shall be allowed on low-speed minor streets with a minimum radius of 250 feet.

8. *Roadway grading.* Clearing and grading across the entire right-of-way is not required on residential subdivision streets, but only across paving areas.

9. *Curbs and stormwater.* Bioretention areas to manage stormwater may be utilized in lieu of curbs and gutter for lots greater than 10,000 square feet in area, subject to specifications of the director of development and permits, or designee. Such measures are intended to promote the recharge of local groundwater resources. Lots 10,000 square feet in area or less shall have curb and gutter if required by section 70-167 unless waived pursuant to section 70-86.

10. *Shared driveways.* Shared driveways in rural areas zoned A-1 agricultural district shall be limited to serve a maximum of three dwellings. Shared driveways shall be designed and constructed in accordance with the minimum standards specified in the Chesapeake Public Facilities Manual.

CSO - Sec. 70-212. - Conservation land design standards.

A. *Prioritized list of resources to be conserved.* The design of conservation land in any cluster development shall reflect the standards set forth in this article and section 6-2200 of the zoning ordinance. Designated conservation land shall incorporate the following resources if they occur on the parcel (listed in order of significance):

1. Tidal wetlands, open waters and CBPA resource protection areas (designated as PCAs).
2. Stream channels, floodplains, non-tidal wetlands, wet soils, swales, springs, and other lowland areas, including adjacent buffer areas that may be required to ensure their protection.
3. Significant natural areas of species listed as endangered, threatened, or of special concern, such as those identified by the Virginia Department of Conservation and Recreation, Division of Natural Heritage.
4. Moderate to steep slopes, particularly those adjoining watercourses and ponds, where disturbance and resulting soil erosion and sedimentation could be detrimental to water quality.
5. Healthy woodlands, particularly those performing important ecological functions, such as soil stabilization and protection of streams, wetlands, and wildlife habitats.
6. Areas where precipitation is most likely to recharge local ground water resources because of topographic and soil conditions affording high rates of infiltration and percolation.
7. Hedgerows, groups of trees, and large individual trees of botanic, historical or aesthetic significance.
8. Class I, II, and III agricultural soils as defined by the USDA natural resource conservation service.
9. Historic structures and sites.
10. Visually prominent topographic features such as wooded shorelines, canebrake, and scenic viewsheds as seen from public roads (particularly scenic byways).
11. Existing and planned trails connecting the tract to other properties in the city.

B. *Other design considerations.* The configuration of designated conservation land shall comply with the following standards:

1. Conservation land shall be free of all buildings and structures except historic buildings and structures, stone walls, fences, and other structures related to approved passive or active recreational uses. The planning director or designee may grant approval of structures and improvements required for drainage, stormwater management, sewage disposal, and water supply within the conservation land, provided that such facilities will not be detrimental to the conservation land. Areas required for such uses shall not be

credited toward minimum conservation land requirements for the cluster development, unless such land is approved for passive recreational use.

2. Conservation land shall not consist of less than three acres or have a length-to-width ratio of less than 4:1. At no point shall the land be less than 75 feet in width. Notwithstanding this, the planning director or designee may allow exceptions to the minimum width and length-to-width ratios for lands specifically designed and designated as neighborhood greens, playing fields, or trail links.

3. Conservation land shall be directly accessible to the largest number of lots possible within the cluster development. Non-adjoining lots shall be provided with safe and convenient pedestrian access to conservation land.

4. Conservation land designated for active recreational uses shall not interfere with dwelling units, parking, driveways, and roads.

5. Conservation land shall be interconnected wherever possible to provide a continuous network of natural areas within and adjoining the cluster development.

6. Conservation land shall be located so as to provide buffers to adjoining parks, preserves and other protected lands.

7. Conservation land shall include pedestrian, bicycle and recreational trails for use by the residents of the cluster development. Consideration shall be given to providing public access to such trails if they are linked to other publicly accessible land within the city. Provisions shall be made for access to the conservation land as necessary for utility installation and maintenance and for emergency access purposes.

8. Conservation land should not be divided by public or private streets, except where necessary for proper traffic circulation. Streets shall not be counted toward meeting required conservation land.

9. Conservation land shall be suitably landscaped by retaining existing natural cover and wooded areas and/or installing vegetation according to an approved landscaping plan to protect conservation resources.

10. Conservation land shall be preserved with permanent conservation easements approved by the city attorney and duly recorded in the office of the clerk of the circuit court or by dedication to the city or an approved property owners association, conservation organization, conservation land trust or one or more individuals.

11. Conservation land shall be consistent with the city's zoning ordinance and comprehensive plan.

C. *Ownership and maintenance.* The applicant shall demonstrate compliance with conservation land ownership and maintenance standards in this article and section 6-2200 of the zoning ordinance

CSO - Sec. 70-213. - Other cluster design requirements.

A. *Sidewalks.* Sidewalks are required on both sides of the street in all cluster developments. Notwithstanding this requirement, a recreational trail network which provides pedestrian connectivity to such areas as conservation land, schools, playgrounds, shopping areas, adjacent neighborhoods and high-volume streets, may be installed in lieu of the required sidewalks, subject to approval by the planning director or designee. Sidewalks and recreational trails may utilize alternative paving materials, depending on their intended use, provided that the planning director or designee approves same.

B. *Street trees.* Canopy trees as defined in section 19-600 of the zoning ordinance are one of the most important amenities of a cluster development. Where possible, canopy trees shall be planted in "tree lawns" at least four feet wide located between the sidewalk and the curb or edge of right-of-way pavement. Utilities

shall be located either within the tree lawn area or in a special utility easement located beyond the sidewalk. The final plan may address barriers, such as bio-barriers, that will direct root systems away from public utilities. Plant materials that are easily maintained or removed shall be used in utility easements. Prior written consent from the public utilities department will be required for landscaping located in a water or sewer easement. Street trees shall require a performance guarantee to assure replacement for 18 months after planting. The city may invoke this performance guarantee if the director of development and permits, or designee, determines that a tree is diseased, dying or dead.

C. On-lot sewer disposal and wells. In those cases where public utility systems are not available or required private sewer disposal systems may be located on the best available soils, including where necessary, village greens, playing fields, or designated conservation land. Location of these individual sewer disposal systems shall be subject to the approval of the city health department or other appropriate regulatory authority. In addition, a conditional use permit is required for any central disposal system, including without limitation, private sewage package plants, and for any septic disposal system that is dependent on one or more off-site regional drainfields designed to serve more than one residential dwelling unit.

D. Location of public utilities. To the extent practicable:

1. Water meters shall be placed in the center of lots.
2. Sanitary sewer lines shall be placed to the left or right of the water line, no less than ten feet from said line.
3. Other utilities. Gas, power, telephone, and cable/telecommunication lines shall be installed within ten feet of the left side or right property line.

E. Stormwater management facilities. Stormwater management and drainage facilities may be integrated into the designated conservation land as permitted by section 6-2200 of the zoning ordinance, but shall not be counted toward meeting required conservation land.