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Model Language for Subdivision Ordinance

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SECTION 400 - Purposes and Applicability

The provisions of this Article shall apply to all subdivision and land development applications in this municipality. For the convenience of applicants, the municipality provides a complimentary Plan Requirements Checklist listing all the documents that this Ordinance requires to be submitted, at each step of the review process. Copies of this checklist are available from the Municipal Office. The checklist also facilitates review by staff and officials, as they review each application for completeness and conformance with relevant ordinance provisions.

SECTION 401 - Sketch Plan Overlay Sheet

- A. A Sketch Plan may be submitted by the applicant as a diagrammatic basis for informal discussion with the Board, the Planning Commission, and the County Planning Commission regarding the design of a proposed subdivision or land development. Sketch Plan submission is strongly encouraged by the municipality as a way of helping applicants and officials develop a better understanding of the property and to help establish an overall design approach that respects its special or noteworthy features, while providing for the density permitted under the zoning ordinance.
- B. To provide a full understanding of the site's potential and to facilitate the most effective exchange with the Planning Commission, the Sketch Plan should include the information listed below. Many of these items can be taken from the Existing Resources and Site Analysis Plan, a document that must in any case be prepared and submitted no later than the date of the Site Inspection, which precedes the Conceptual Preliminary Plan (see Section 402C2). In fact, the diagrammatic Sketch Plan may be prepared as a simple overlay sheet placed on top of the Existing Resources and Site Analysis Plan.
 1. Name and address of the legal owner, the equitable owner, and/or the applicant;
 2. Name and address of the professional engineer, surveyor, planner, architect, landscape architect, or site designer responsible for preparing the plan;
 3. Graphic scale (not greater than 1" = 200 ft.; however, dimensions on the plan need not be exact at this stage) and north arrow;
 4. Approximate tract boundaries, sufficient to locate the tract on a map of the municipality;
 5. Location map;
 6. Zoning district;
 7. Streets on and adjacent to the tract (both existing and proposed);

8. 100-year floodplain limits, and approximate location of wetlands, if any;
9. Topographic, physical, and cultural features including fields, pastures, meadows, wooded areas, trees with a diameter of fifteen inches or more, hedgerows and other significant vegetation, steep slopes (over 25%), rock outcrops, soil types, ponds, ditches, drains, dumps, storage tanks, streams within two hundred (200) feet of the tract, and existing rights-of-way and easements, and cultural features such as all structures, foundations, walls, wells, trails, and abandoned roads;
10. Schematic layout indicating a general concept for land conservation and development ("bubble" format is acceptable for this delineation of Step One of the four-step design process described in Section 602B of this ordinance);
11. Proposed general street and lot layout; and
12. In the case of land development plans, proposed location of buildings and major structures, parking areas and other improvements.
13. General description of proposed method of water supply, sewage disposal, and stormwater management.

SECTION 402 - Documents Required For The Conceptual Preliminary Plan

The application for a Conceptual Preliminary Plan shall provide the name and address of the legal owner or equitable owner of the subject property, and the name and address of the applicant if not the same party, plus the following elements listed below. A deed or agreement of sale evidencing that the applicant is the legal or equitable owner of the land to be subdivided or developed shall be shown.

(Note: The approach advocated in this Article is to return to the original intent of the state enabling legislation, in which "Preliminary Plans" were much more conceptual in nature than they have evolved into within recent years, in many municipalities. The following model provisions strike a balance between the municipality's need for certain kinds of information prior to vesting, while at the same time avoiding the situation in which applicants become "locked in" to highly-detailed and so-called "preliminary" plans that cost them tens of thousands of dollars to prepare. It is not essential that such a high degree of detail be supplied at this early stage, and the practice of transforming "preliminary" plans into very expensive engineering documents has proven to be counter-productive in many cases, with applicants typically refusing to substantially modify their "preliminary" plans.)

A. Conceptual Preliminary Plan Application Submission Requirements

1. The submission requirements for a Conceptual Preliminary Plan shall consist of the following elements, and shall be prepared in accordance with the drafting standards and plan requirements described herein:
 - a. Site Context Map
 - b. Existing Resources and Site Analysis Plan
 - c. Preliminary Resource Impact and Conservation Plan
 - d. Preliminary Improvements Plan
 - e. Preliminary Studies and Reports as set forth in other parts of this ordinance.

B. Drafting Standards

1. The plan shall be drawn to a scale of either 1"=100' or 1"=200', whichever would fit best on a standard size sheet (24" x 36"), unless otherwise approved by the Planning Commission.
2. Dimensions shall be set in feet.

3. Each sheet shall be numbered and the plan shall provide an adequate legend indicating clearly which features are existing and which are proposed.
4. All plans submitted shall be made on sheets no larger than 34" x 44" nor smaller than 17" x 22".

C. Plan Requirements

The following plans and maps shall bear the name, signature, address, and telephone number of the engineer, land surveyor, or landscape architect responsible for preparing the plan or map.

1. Site Context Map

A map showing the location of the proposed subdivision within its neighborhood context shall be submitted. For sites under 100 acres in area, such maps shall be at a scale not less than 1" = 200', and shall show the relationship of the subject property to natural and man-made features existing within 1,000 feet of the site. For sites of 100 acres or more, the scale shall be 1" = 400', and shall show the above relationships within 2,000 feet of the site. The features that shall be shown on Site Context Maps include topography (from U.S.G.S. maps), stream valleys, wetland complexes (from maps published by the U.S. Fish & Wildlife Service or the U.S.D.A. Natural Resources Conservation Service), woodlands over one-half acre in area (from aerial photographs), ridge lines, public roads and trails, utility easements and rights of way, public land, and land protected under conservation easements.

2. Existing Resources and Site Analysis Plan

For all subdivisions (except those in which all proposed lots are to be ten or more acres in area), an Existing Resources and Site Analysis Plan shall be prepared to provide the developer and the municipality with a comprehensive analysis of existing conditions, both on the proposed development site and within 500 feet of the site. Conditions beyond the parcel boundaries may be described on the basis of existing published data available from governmental agencies, and from aerial photographs.

The municipality shall review the Plan to assess its accuracy, conformance with municipal ordinances, and likely impact upon the natural and cultural resources on the property. Unless otherwise specified by the Planning Commission, such plans shall generally be prepared at the scale of 1" = 100' or 1" = 200', whichever would fit best on a single standard size sheet (24" x 36"). The following information shall be included in this Plan:

- a. A vertical aerial photograph enlarged to a scale not less detailed than 1 inch = 400 feet, with the site boundaries clearly marked.
- b. Topography, the contour lines of which shall generally be at two-foot intervals, determined by photogrammetry (although 10-foot intervals are permissible beyond the parcel boundaries, interpolated from U.S.G.S. published maps). The determination of appropriate contour intervals shall be made by the Planning Commission, which may specify greater or lesser intervals on exceptionally steep or flat sites. Slopes between 15 and 25 percent and exceeding 25 percent shall be clearly indicated. Topography for major subdivisions shall be prepared by a professional land surveyor or professional engineer from an actual field survey of the site or from stereoscopic aerial photography and shall be coordinated with official U.S.G.S. benchmarks.
- c. The location and delineation of ponds, streams, ditches, drains, and natural drainage swales, as well as the 100-year floodplains and wetlands, as defined in the Zoning Ordinance. Additional areas of wetlands on the proposed development parcel shall also be indicated, as evident from testing, visual inspection, or from the presence of wetland vegetation.

- d. Vegetative cover conditions on the property according to general cover type including cultivated land, permanent grass land, meadow, pasture, old field, hedgerow, woodland and wetland, trees with a caliper in excess of fifteen inches, the actual canopy line of existing trees and woodlands. Vegetative types shall be described by plant community, relative age and condition.
- e. Soil series, types and phases, as mapped by the U.S. Department of Agriculture, Natural Resources Conservation Service in the published soil survey for the county, and accompanying data published for each soil relating to its suitability for construction (and, in unsewered areas, for septic suitability).
- f. Ridge lines and watershed boundaries shall be identified.
- g. A viewshed analysis showing the location and extent of views into the property from public roads and from public parks, public forests, and state game lands.
- h. Geologic formations on the proposed development parcel, including rock outcroppings, cliffs, sinkholes, and fault lines, based on available published information or more detailed data obtained by the applicant.
- i. All existing man-made features including but not limited to streets, driveways, farm roads, woods roads, buildings, foundations, walls, wells, drainage fields, dumps, utilities, fire hydrants, and storm and sanitary sewers.
- j. Locations of all historically significant sites or structures on the tract, including but not limited to cellarholes, stone walls, earthworks, and graves.
- k. Locations of trails that have been in public use (pedestrian, equestrian, bicycle, etc.).
- l. All easements and other encumbrances of property which are or have been filed of record with the Recorder of Deeds of _____ County shall be shown on the plan.
- m. Total acreage of the tract, the Adjusted Tract Area and the constrained land area with detailed supporting calculations.

3. Four-Step Design Process for Subdivisions in the Conservation Design Overlay District

(Note: This process can also be used in other zoning districts where conservation design is encouraged or required under the municipality's ordinance.

All Conceptual Preliminary Plans in the Conservation Design Overlay District shall include documentation of a four-step design process in determining the layout of proposed greenway lands, house sites, streets and lot lines, as described below. (see also Section 602.B)

- a. Step 1: Delineation of Greenway Lands
 - 1) The minimum percentage and acreage of required greenway lands shall be calculated by the applicant and submitted as part of the Sketch Plan or Conceptual Preliminary Plan in accordance with the provisions of this ordinance and of the zoning ordinance. greenway lands shall include all Primary Conservation Areas and those parts of the remaining buildable lands with the highest resource significance, as described below and in Sections 603.A and B.
 - 2) Proposed greenway lands shall be designated using the Existing Resources and Site Analysis Plan as a base map and complying with Section 104 of the Zoning Ordinance and Sections 602 and 603 herein, dealing with Resource Conservation and Greenway Delineation Standards. The municipality's Map of Potential Conservation Lands in the Comprehensive Plan shall also be referenced and considered. Primary Conservation Areas shall be delineated

comprising floodplains, wetlands and slopes over 25 percent. (The definition of Primary Conservation Areas is independent of the "density factors" applied to various categories of constrained lands to calculate Adjusted Tract Area" in Section 104.C.1 of the zoning ordinance.)

- 3) In delineating Secondary Conservation Areas, the applicant shall prioritize natural and cultural resources on the tract in terms of their highest to least suitabilities for inclusion in the proposed Greenway, in consultation with the Planning Commission and in accordance with Sections 603.A and B herein ("Prioritized List of Resources to be Conserved" and "Other Design Considerations").
- 4) On the basis of those priorities and practical considerations given to the tract's configuration, its context in relation to resources areas on adjoining and neighboring properties, and the applicant's subdivision objectives, Secondary Conservation Areas shall be delineated to meet at least the minimum area percentage requirements for greenway lands and in a manner clearly indicating their boundaries as well as the types of resources included within them.

b. Step 2: Location of House Sites

Potential house sites shall be tentatively located, using the proposed greenway lands as a base map as well as other relevant data on the Existing Resources and Site Analysis Plan such as topography and soils. House sites should generally be located not closer than 100 feet from Primary Conservation Areas and 50 feet from Secondary Conservation Areas, 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.

c. Step 3: Alignment of Streets and Trails

Upon designating the house sites, a street plan shall be designed to provide vehicular access to each house, complying with the standards in Article 7 herein and bearing a logical relationship to topographic conditions. Impacts of the street plan on proposed greenway lands shall be minimized, particularly with respect to crossing environmentally sensitive areas such as wetlands and traversing slopes exceeding 15%. Street connections shall generally be encouraged to minimize the number of new cul-de-sacs to be maintained by the municipality and to facilitate access to and from homes in different parts of the tract (and adjoining parcels).

d. Step 4: Drawing in the Lot Lines

Upon completion of the preceding three steps, lot lines are drawn as required to delineate the boundaries of individual residential lots.

Applicants shall be prepared to submit four separate sketch maps indicating the findings of each step of the design process, if so requested by the Planning Commission or the Board.

4. Note on the Four-Step Site Design Process for Option 5: Hamlets and Villages

The design process for laying out Option 5 Hamlets and Villages shall be a variation on the four-step process for conservation subdivisions, as described in Section 402.C.3 of this Ordinance. In hamlets and villages, where traditional streetscape and "terminal vistas" are of greater importance, Steps Two and Three may be reversed, so that streets and squares are located during the second step, and house sites are located immediately thereafter. The first step is to identify greenway lands, including both Primary and Secondary Conservation Areas.

5. Preliminary Resource Impact and Conservation Plan

- a. A Preliminary Resource Impact and Conservation Plan shall be prepared for all major subdivision and land development applications to categorize the impacts of the proposed activities and physical alterations on those resources shown on the Existing Resources and Site Analysis Plan (as required under Section 402.C.2). All proposed improvements, including but not necessarily limited to grading, fill, streets, buildings, utilities and stormwater detention facilities, as proposed in the other Conceptual Preliminary Plan documents, shall be taken into account in preparing the Preliminary Resource Impact and Conservation Plan, which shall clearly demonstrate that the applicant has minimized site disturbance to the greatest extent practicable.
- b. Using the Existing Resources and Site Analysis Plan as a base map, impact areas shall be mapped according to the following categories: (1) primary impact areas, i.e., areas directly impacted by the proposed subdivision, (2) secondary impact areas, i.e., areas in proximity to primary areas which may be impacted, and (3) designated protected areas, either to be included in a proposed Greenway or an equivalent designation such as dedication of a neighborhood park site.
- c. This requirement for a Preliminary Resource Impact and Conservation Plan may be waived by the Planning Commission if, in its judgment, the proposed development areas, as laid out in the Sketch Plan or in the Conceptual Preliminary Plan would be likely to cause no more than an insignificant impact upon the site's resources.

6. Preliminary Improvements Plan

This plan shall include the following items:

- a. Historic resources, trails and significant natural features, including topography, areas of steep slope, wetlands, 100-year floodplains, swales, rock outcroppings, vegetation, existing utilities, and other site features, as indicated on the Existing Resources and Site Analysis Plan.
- b. Existing and approximate proposed lot lines, lot areas, any existing easements and rights-of-way. For properties subject to the Conservation Design Overlay District, the boundaries of greenway lands shall be indicated.
- c. Approximate location, alignment, width and tentative names of all proposed streets and street rights-of-way, including all street extensions or spurs that are reasonably necessary to provide adequate street connections and facilities to adjoining development or undeveloped areas; preliminarily-engineered profiles for proposed streets.
- d. Approximate location of proposed swales, drainage easements, stormwater and other management facilities.
- e. Where community sewage service is to be permitted, the conceptual layout of proposed sewage systems, including but not limited to the tentative locations of sewer mains and sewage treatment plants, showing the type and degree of treatment intended and the size and capacity of treatment facilities.
- f. Where central water service is to be permitted, the conceptual layout of proposed water distribution facilities including water mains, fire hydrants, storage tanks and, where appropriate, wells or other water sources.
- g. Location of all percolation tests as may be required under this ordinance, including all failed test sites or pits as well as those approved and including an approved alternate site for each lot requiring a sand mound system. All approved sites shall be clearly distinguished from unapproved sites.

- h. Limit-of-disturbance line (must be exact in relation to the retention of existing trees proposed to be saved).
- i. Approximate location and dimensions of proposed playgrounds, public buildings, public areas and parcels of land proposed to be dedicated or reserved for public use.
- j. If land to be subdivided lies partly in or abuts another municipality, the applicant shall submit information concerning the location and conceptual design of streets, layout and size of lots and provisions of public improvements on land subject to his control within the adjoining municipalities. The design of public improvements shall provide for a smooth, practical transition where specifications vary between municipalities. Evidence of approval of this information by appropriate officials of the adjoining municipalities also shall be submitted.
- k. Where the applicant proposes to install the improvements in phases, he shall submit with the Conceptual Preliminary Plan a delineation of the proposed sections and a schedule of deadlines within which applications for final approval of each section are intended to be filed.
- l. Typical street cross-section drawing(s) for all proposed streets shall be shown, including details relating to thickness, crowning and construction materials.
- m. Utilities and Easements.
 - 1) Exact locations of existing utility easements and approximate locations of proposed utility easements.
 - 2) Approximate layout of all proposed sanitary and storm sewers and location of all inlets and culverts, and any proposed connections with existing facilities. (These data may be on a separate plan.)
 - 3) The tentative location of proposed on-site sewage and water facilities.
- n. Approximate location of proposed shade trees, plus locations of existing vegetation to be retained.
- o. Signature blocks for the Planning Commission, Board, and the County Planning Commission shall be provided on the right-hand side of the Preliminary Improvements Plan.

7. Preliminary Studies and Reports

When required by the Board, typically in cases involving large subdivision and land development proposals (with more than 25 lots) or smaller development plans where the Board believes that potential impacts could be significant, the Conceptual Preliminary Plan submission shall include one or more of the following studies to assist in determination of the impact of the application upon municipal services and facilities:

- a. Sewer and Water Feasibility Report
- b. Groundwater Protection and Replenishment Study
- c. Erosion and Sedimentation Control Plan
- d. Traffic Impact Study
- e. Community Association Document
 - 1) A Community Association Document, also known as a Homeowner's Association Document or a Condominium Association Document, shall be provided for all subdivision and land development applications which propose lands or facilities to be used or owned in common by all the residents of that subdivision or land development and not deeded to the municipality.

- 2) The elements of the Community Association Document shall include, but shall not necessarily be limited to the following:
 - a) A description of all lands and facilities to be owned by the Community Association. This description shall include a map of the proposal highlighting the precise location of those lands and facilities.
 - b) Statements setting forth the powers, duties, and responsibilities of the Community Association, including the services to be provided.
 - c) A Declaration of Covenants, Conditions, and Restrictions, giving perpetual easement to the lands and facilities owned by the Community Association. The Declaration shall be a legal document which also provides for automatic Association membership for all owners in the subdivision or land development and shall describe the mechanism by which owners participate in the Association, including voting, elections, and meetings. Furthermore, it shall give power to the Association to own and maintain the common property and to make and enforce rules.
 - d) Statements prescribing the process by which Community Association decisions are reached and setting forth the authority to act.
 - e) Statements requiring each owner within the subdivision or land development to become a member of the Community Association.
 - f) Statements setting cross covenants or contractual terms binding each owner to all other owners for mutual benefit and enforcement.
 - g) Requirements for all owners to provide a pro rata share of the cost of the operations of the Community Association.
 - h) A process of collection and enforcement to obtain funds from owners who fail to comply.
 - 9) A process for transition of control of the Community Association from the developer to the unit owners.
 - 10) Statements describing how the lands and facilities of the Community Association will be insured, including limit of liability.
 - 11) Provisions for the dissolution of the Community Association, in the event the Association should become inviable.

Please Note: See also Section 109 of the Zoning Ordinance, "Ownership and Management of Greenway Land and Common Facilities".

D. Preliminary Greenway Ownership and Management Plan

Using the Conceptual Preliminary Plan as a base map, the boundaries, acreage and proposed ownership of all proposed Greenway areas shall be shown. In addition, the applicant shall also submit a Preliminary Greenway Ownership and Management Plan detailing the entities responsible for maintaining various elements of the property, and describing management objectives and techniques for each part of the property. Such management plans shall be consistent with the requirements of Section 109 of the zoning ordinance ("Ownership and Management of Greenway Land and Common Facilities").

E. Preliminary Engineering Certification

Prior to approval of the Conceptual Preliminary Plan, the applicant shall submit to the Planning Commission a "Preliminary Engineering Certification" stating that the approximate layout of proposed streets, houselots, and greenway lands complies with the municipality's zoning and subdivision ordinances, particularly those sections governing the design of subdivision streets and stormwater management facilities. This certification requirement is meant to provide the Planning Commission with assurance that the

proposed plan is able to be accomplished within the municipality's current regulations. The certification shall also note any waivers needed to implement the plan as drawn.

SECTION 403 - Detailed Final Plan

Final plans shall conform to the Conceptual Preliminary Plan, including any conditions specified by the Board. A Detailed Final Plan shall consist of and be prepared in accordance with the following:

A. Drafting Standards

All drafting standards as required in Section 402.B shall apply. Also, final plans shall be prepared at the scale of 1"=100'. However, Detailed Final Plans for low density "Option 4" subdivisions shall generally not be required to be prepared at scales finer than 1"=200', unless special conditions exist on the site.

B. Existing Resources and Site Analysis Plan

A plan as stipulated in Section 402.C.2 consistent with the terms of Conceptual Preliminary Plan approval and modified as necessary to reflect the proposal for final approval.

C. Final Resource Impact and Conservation Plan

1. This plan shall comply with all of the requirements for the Preliminary Resource Impact and Conservation Plan, as set forth in Section 402.C.5 to reflect all proposed improvements described in the other Detailed Final Plan documents as required under Section 403 herein.
2. In addition to the requirements of Section 402.C.5 the applicant shall submit an accompanying Resource Assessment Report divided into the following sections: (1) description of existing resources (as documented in Section 402.C.2), (2) impacts of the proposed subdivision on existing resources, correlated to the areas depicted in the Final Resource Impact and Conservation Plan, and (3) measures taken to minimize and control such impacts both during and following the period of site disturbance and construction. The qualifications and experience of the preparer of this report shall be provided.

D. Final Improvements Construction Plan

Where public or private improvements other than monuments and street traffic signs are to be required for any subdivision or land development, an Improvements Construction Plan and specifications, prepared by a registered professional engineer, shall be filed, setting forth the precise nature and exact location of the work and all engineering data necessary for completion of the work. The improvements construction plan and specifications shall be subject to approval of the Municipal Engineer and the Board as a prerequisite to approval of the Detailed Final Plan. The Improvements Construction Plan shall conform with the following standards and contain the following information:

1. All information required in Sections 401.B and 402.C.6 relating to existing features and resources on the site.
2. Detailed profile sheets for all proposed streets within the tract.
3. If required, a plan, details and specifications of street lights to be installed, together with the necessary contract for street light installation for approval by the municipality.
4. Detailed design of any stormwater management facilities that may be required.
5. Where off-site or community sewer service is to be provided, the final detailed design of all facilities, including, but not limited to, sewer mains, manholes, pumping stations, and sewage treatment facilities.
6. Where off-site or central water service or water supply is to be provided, the final detailed design, including location and size of water service facilities within the

subdivision, shall be shown, including wells, storage tanks, pumps, mains, valves, and hydrants.

7. Detailed designs for all other improvements as required by this ordinance.

E. Final Stormwater Management and Erosion & Sedimentation Control Plan

F. Final Greenway Ownership and Management Plan

Using the Detailed Final Plan as a base map, the precise boundaries, exact acreage, and proposed ownership of all proposed Greenway areas shall be shown. A narrative report shall also be prepared indicating how and by whom such Greenway areas will be managed, and demonstrating compliance with Article 1 of the Zoning Ordinance.

G. Final Landscape Plan

H. Additional Approvals, Certificates and Documents

1. All offers of dedication of realty or structures and all declarations, easements and covenants governing the reservation and maintenance of undedicated open space, for the Detailed Final Plan shall be in such form as shall be satisfactory to the Board.
2. A copy of such deed restrictions, easements, covenants and declarations which are to be imposed upon the property to comply with the Detailed Final Plan as approved by the Board. All such documents shall be in such form as is satisfactory to the Board.

ARTICLE 5 - Plan Processing Procedures

Contents:

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SECTION 500 - General

- A. All preliminary and final subdivision or land development plans shall be referred to and reviewed by the Planning Commission and shall be approved or disapproved by the Board of Supervisors in accordance with the procedures specified in this Article and in other sections of this ordinance. Any application not processed as required herein shall be null and void unless it was made prior to the adoption of these regulations.
- B. Overview of Procedures: Items 1-4 and 6-11 below are required under this Ordinance. Item 5 (Sketch Plan Submission and Review) is optional but strongly encouraged as an important, valuable and highly recommended step that will speed the review process and may result in lower costs for the project. These steps shall be followed sequentially, and may be combined only at the discretion of the municipality:
 1. Pre-Application Meeting
 2. Existing Resources and Site Analysis Plan, as described in Section 502.C of this Ordinance
 3. Site Inspection by Planning Commission and Applicant
 4. Pre-Sketch Plan Conference
 5. Sketch Plan Submission and Review (diagrammatic sketch, optional step)

6. Conceptual Preliminary Plan: Determination of Completeness; Preliminary Resource Conservation Plan and Sewage Planning Module Submission; Review by Municipal and County Planning Commissions, Township Engineer and County Health Department; and Approval by Supervisors on advice of the Municipal Planning Commission. (In the Conservation Design Overlay District, the Four-Step Design Process described in Section 402.E of this Ordinance must be followed.)
7. Detailed Final Plan, Preparation: Incorporation of all Conceptual Preliminary Plan Approval Conditions, Documentation of all other agency approvals, as applicable.
8. Detailed Final Plan, Submission: Determination of Completeness, Review, and Approval
9. Municipal Board signatures
10. Recording of approved Detailed Final Plan with County Recorder of Deeds

SECTION 501 - Plan Classification For Major and Minor Subdivisions

A. Classification

For purposes of procedure, all applications shall be classified as either major or minor:

1. Minor: Any subdivision in which
 - a. No public or private street is constructed or is required to be widened;
 - b. No other completion of public improvement or guarantee thereof is required other than individual on-lot stormwater management systems;
 - c. No earthmoving activities will take place except those incidental to construction of a single-family dwelling on each lot; and
 - d. No more than three (3) lots are created.
2. Major: any land development or subdivision application not in compliance with Section 501.A.1 or any part thereof, or for any use other than single-family residential, shall be considered a major use plan.

B. Review

1. Major applications shall be subject to all review procedures specified in this article.
2. When an application includes only a portion of a landowner's entire tract, or when such portion is contiguous to an adjoining tract of the landowner, a sketch layout shall be included showing future potential subdivision of all the contiguous lands belonging to the landowner to ensure that subdivision may be accomplished in accordance with current codes and with appropriate access. Submission and review of the sketch plan described in this section shall not constitute approval of the future subdivision shown thereon.

SECTION 502 - Submission and Review of Sketch Plan

(Note: Municipalities shall determine whether an optional or mandatory Sketch Plan best suits their needs. The language below provides for optional Sketch Plans only because Pennsylvania law does not specifically provide for more than two 90-day review periods for subdivision plans. Municipalities that adopt the optional approach should evaluate, at the end of one year, whether applicants are generally choosing to follow the Sketch Plan process. If they are not, the municipality should consider requiring Sketch Plans, as a large number of municipalities in southeastern Pennsylvania have done. If the requirements are not onerous and are seen by applicants as a way to help them avoid delays, or to avoid situations in which they must substantially modify their original plans to comply with ordinance requirements, experience has shown that applicants will not litigate over a Sketch Plan requirement.)

A. Applicability

A diagrammatic sketch plan is strongly encouraged for all proposed minor or major subdivisions. Sketch Plans, as described in Section 401, shall be submitted to the municipality for review by the Planning Commission. Such plans are for informal discussion only. Submission of a Sketch Plan does not constitute formal filing of a plan with the Municipality, and shall not commence the statutory review period as required by the Municipalities Planning Code. The procedures for submission of a diagrammatic Sketch Plan are described in Section 502.F below, and may be altered only at the discretion of the Municipality.

B. Pre-Application Meeting

A pre-application meeting is encouraged between the applicant, the site designer, and the Planning Commission (and/or its planning consultant), to introduce the applicant to the municipality's zoning and subdivision regulations and procedures, to discuss the applicant's objectives, and to schedule site inspections, meetings and plan submissions as described below. Applicants are also encouraged to present the Existing Resources and Site Analysis Plan at this meeting.

C. Existing Resources and Site Analysis Plan

Applicants shall submit an Existing Resources and Site Analysis Plan, in its context, prepared in accordance with the requirements contained in Section 402.C.2. The purpose of this key submission is to familiarize officials with existing conditions on the applicant's tract and within its immediate vicinity, and to provide a complete and factual reference for them in making a site inspection. This Plan shall be provided prior to or at the site inspection, and shall form the basis for the development design as shown on the diagrammatic Sketch Plan (or on the Conceptual Preliminary Plan, if the optional Sketch Plan is not submitted).

D. Site Inspection

After preparing the Existing Resources and Site Analysis Plan, applicants shall arrange for a site inspection of the property by the Planning Commission and other municipal officials, and shall distribute copies of said site analysis plan at that on-site meeting. Applicants, their site designers, and the landowner are encouraged to accompany the Planning Commission.

The purpose of the visit is to familiarize local officials with the property's existing conditions and special features, to identify potential site design issues, and to provide an informal opportunity to discuss site design concepts, including the general layout of designated greenway lands (if applicable), and potential locations for proposed buildings and street alignments. Comments made by municipal officials or their staff and consultants shall be interpreted as being only suggestive. It shall be understood by all parties that no formal recommendations can be offered, and no official decisions can be made, at the Site Inspection.

E. Pre-Sketch Conference

Following the site inspection and prior to the submission of a diagrammatic sketch plan, the applicant shall meet with the Planning Commission to discuss the findings of the site inspection and to develop a mutual understanding on the general approach for subdividing and/or developing the tract in accordance with the four-step design procedure described in Sections 402.C.3 and 602.B of this ordinance, where applicable. At the discretion of the Commission, this conference may be combined with the site inspection.

F. Sketch Plan Submission and Review

1. Copies of a diagrammatic Sketch Plan, meeting the requirements set forth in Section 401, shall be submitted to the Municipal Secretary during business hours for distribution to the Board, the Planning Commission, the Municipal Planner, the Municipal Engineer and applicable municipal advisory boards (such as the Parks Board, the Environmental Advisory Council, the Historic Architectural Review Board, the Shade Tree Commission, and the Open Space Committee) at least seven (7) days prior to the Planning Commission meeting at which the Sketch Plan is to be

discussed. The Sketch Plan diagrammatically illustrates initial thoughts about a conceptual layout for greenway lands, house sites, and street alignments, and shall be based closely upon the information contained in the Existing Resources and Site Analysis Plan. The Sketch Plan shall also be designed in accordance with the four-step design process described in Sections 402.C.3 and 602.B, and with the design review standards listed in Sections 603.A and B.

2. The Planning Commission shall review the Sketch Plan in accordance with the criteria contained in this ordinance and with other applicable ordinances of the municipality. Their review shall informally advise him/her of the extent to which the proposed subdivision or land development conforms to the relevant standards of this Ordinance, and may suggest possible plan modifications that would increase its degree of conformance. Their review shall include but is not limited to:
 - a. the location of all areas proposed for land disturbance (streets, foundations, yards, septic disposal systems, storm water management areas, etc.) with respect to notable features of natural or cultural significance as identified on the applicant's Existing Resources and Site Analysis Plan and on the Municipality's Map of Potential Conservation Lands;
 - b. the potential for street connections with existing streets, other proposed streets, or potential developments on adjoining parcels;
 - c. the location of proposed access points along the existing road network;
 - d. the proposed building density and impervious coverage;
 - e. the compatibility of the proposal with respect to the objectives and policy recommendations of the Comprehensive Plan and the Open Space Plan; and
 - f. consistency with the zoning ordinance.

The Commission shall submit its written comments to the applicant and the Board. The diagrammatic Sketch Plan may also be submitted by the Board to the County Planning Commission for review and comment.

(Note: Municipalities are advised to discuss the optional Sketch Plan review process with their County planning agency to determine whether the County is willing to conduct such a review and if so, whether fees will be charged.)

SECTION 503 - Submission Of Conceptual Preliminary Plan Documents

A. Conceptual Preliminary Plan

1. The Conceptual Preliminary Plan is a preliminarily-engineered scale drawing in which layout ideas are illustrated in more than the rough, diagrammatic manner appropriate for Sketch Plans, but before heavy engineering costs are incurred in preparing detailed alignments and profiles for streets, and/or detailed calculations for stormwater management. If an applicant opts not to submit a Sketch Plan, the Conceptual Preliminary Plan shall include all information required for Sketch Plans listed in Section 401, specifically including the Existing Resources and Site Analysis Plan, plus further details as noted below and in Section 402.
2. The applicant shall complete and sign the application form provided by the Township and shall accompany such application form with the type and number of plans, documents and other submissions required and the appropriate filing fee(s). The applicant must identify the name, address and telephone number of the record holder of legal title to the land involved (if different from the applicant), the nature of the applicant's interest in the land (whether holder of legal or equitable title or otherwise), and the name, address, and telephone number of the agent, if any. No application shall be deemed filed unless all requirements have been met and all fees therefor paid in full.

3. The Existing Resources and Site Analysis Plan shall be presented at the Pre-Application Meeting, and distributed to those municipal officials who attend the Site Inspection described in Section 502.D (which shall occur at the Conceptual Preliminary Plan stage if it has not already occurred at the Sketch Plan stage).

(Note: Note: The timeframe in this section conforms to the enabling legislation for preliminary plans in Pennsylvania. Readers in other states are advised to seek legal counsel regarding statutory time limitations for acting on Preliminary Plan applications.

4. The application "window" and deadline dates for submission of Conceptual Preliminary Plans shall be as follows: Applicants shall submit to the Municipal Secretary, at least 21 days (but not more than 28 days) prior to the date of the next regularly scheduled Planning Commission meeting at which official review is requested, sixteen copies of a complete Conceptual Preliminary Plan and all other required documents and information, including the same number of copies of the Existing Resources and Site Analysis Plan drawn at the same scale (generally 1" = 100' or 1" = 200', at the discretion of the Zoning Officer). All applications shall be accompanied by full payment of the required fees and escrow deposits established in accordance with the terms of this ordinance for proposed subdivisions. The Municipal Secretary shall note the date of receipt of the application, fees, and escrow deposit, and shall forward copies of the proposed plan to the same individuals and bodies named in Section 502.F as recipients of Sketch Plans. The official 90-day review period provided for Preliminary Plans under the Municipalities Planning Code shall commence at the next scheduled meeting of the Planning Commission.
5. The date of receipt is subject to review by the municipality to determine if all required materials, fees and escrow deposits have been submitted by the applicant. If the application is defective or incomplete, the applicant shall be notified in writing within fifteen (15) days of the date of receipt and the application shall be null and void *ad initi*, and shall be deemed withdrawn by the applicant. If no such notice is given to the applicant that the application is defective or incomplete, then the date of filing shall be determined as follows. The review process for the plans required by the municipality shall include no more than ninety (90) days following the date of the next regular meeting of the Planning Commission following the date the application was filed, provided that should said next regular meeting occur more than thirty (30) days following the filing of the application, the said ninety (90) day period shall be measured from the thirtieth day following the day the application was filed. The applicant may agree to extend the time requirement.

SECTION 504 - Review Of Conceptual Preliminary Plan

A. Planning Commission Review

1. The Planning Commission shall review the plan and any recommendations made by County, State and Federal agencies and the Municipal Planner and the Municipal Engineer, to determine conformance of the Plan to this ordinance, the zoning ordinance, and any other relevant ordinances of the municipality.
2. After such review, the Planning Commission shall submit its report to the Board, containing its findings, recommendations, and reasons, citing specific sections of the statutes or ordinances relied upon. A copy of said report shall be given to the applicant.
3. If the applicant agrees that this review period shall be extended for a period of 30 or more days, to provide additional time for him to submit all the required materials and for the Planning Commission to review the same, a written agreement to this effect shall be signed in duplicate, with a file copy being retained by the Planning Commission and by the applicant. Such an extension shall be entered in good faith and for specific reasons relating to the review process, including but not limited to

providing sufficient time for the municipality to receive the written report of the County Planning Commission, the County Health Department, the Municipal Planner and the Municipal Engineer, or to allow the applicant additional time in which to revise his/her application documents.

B. Board Review

1. When the recommendations on the Conceptual Preliminary Plan have been officially submitted to the Board of Supervisors by the Planning Commission, such recommendations shall be placed on the Board's agenda for review and action.
2. In acting on the preliminary subdivision or land development plan, the Board shall review the plan and the written comments of the Municipal Planner, the Municipal Engineer, the Planning Commission, the County Planning Commission and Health Department and all other reviewing agencies, and comments from public hearings. The Board may specify conditions, changes, modifications or additions thereto which it deems necessary or appropriate, and may make its decision to grant preliminary approval subject to such conditions, changes, modifications or additions. Whenever the approval of a Conceptual Preliminary Plan is subject to conditions, the written action of the Board should (1) specify each condition of approval; and (2) request the applicant's written agreement to the conditions within ten (10) days of receipt of the Board's written decision.
3. If the Conceptual Preliminary Plan is not approved, the Board's decision shall specify the defects found in the plan, shall describe the requirements that have not been met, and shall cite in each case the provisions of the Ordinance relied upon
4. Notwithstanding the foregoing procedure, unless the applicant agrees in writing to extend the period for decision, the Board shall render a decision on all Conceptual Preliminary Plans not more than ninety (90) days from the date of the first regular meeting of the Planning Commission held after the complete application was filed. However, if that regular meeting of the Planning Commission occurred more than thirty (30) days after the complete application was filed, the ninety (90) day period shall be measured from the thirtieth day following the date the complete application was filed.
5. The decision of the Board shall be in writing and shall be communicated to the applicant personally or mailed to him at his last known address not later than fifteen (15) days following the decision. The form and content of the decision shall comply with applicable requirements of the Municipalities Planning Code.
6. At the time a revised plan is submitted, it shall be accompanied by the applicant's written and executed agreement of an extension of the period for decision.
7. The decision of the Board shall also be communicated to the governing body of any adjacent municipality, if the plan includes land in that municipality and/or directly abuts its boundaries.

SECTION 505 - Submission Of Detailed Final Plan Documents

- A. Within one year after approval of the Conceptual Preliminary Plan, a Detailed Final Plan and all supplementary data, together with an application form provided by the Municipality and filing fees shall be officially submitted to the Municipal Secretary. The Detailed Final Plan shall conform to the requirements set forth in Section 403. It shall also conform to the Conceptual Preliminary Plan as previously reviewed by the Planning Commission and the Board, and shall incorporate all conditions set by the Municipality in its approval of the Conceptual Preliminary Plan. No application shall be deemed filed unless all requirements have been met and all fees paid in full.
- B. The Board may permit submission of the Detailed Final Plan in phases, each covering a reasonable portion of the entire proposed development as shown on the approved

Conceptual Preliminary Plan; provided that the first Detailed Final Plan phase shall be submitted within one (1) year after approval of the Conceptual Preliminary Plan. Each subsequent phase shall be submitted within one (1) year of approval of the previous phase, provided all phases have been submitted within three (3) years after the date of Preliminary Plan approval.

- C. Unless the filing deadline in Section 505.A is waived or extended by the Board, failure to make timely submission of final plans renders void a Conceptual Preliminary Plan, and the applicant shall be required to file a new application and fee for Conceptual Preliminary Plan approval.
- D. Official submission of the Detailed Final Plan to the Municipal Secretary shall consist of:
 - 1. Three (3) copies of the application for review of final subdivision or land development plan.
 - 2. Sixteen (16) or more copies of the Detailed Final Plan and all supporting plans and information to enable proper distribution and review, as required by the Board.
 - 3. Copies of all applications made or notices provided to Federal, State and County agencies by or on behalf of the applicant for permits, certifications, approvals or waivers required or sought for either subdivision or land development as proposed in the Conceptual Preliminary Plan or in the Detailed Final Plan, including, but not limited to, applications or notices provided to the U.S. Army Corps of Engineers, the U.S. Department of Agriculture Soil Conservation District, the U.S. Environmental Protection Agency, the state Department of Environmental Protection (DEP), or the state Department of Transportation and the County Health Department.
 - 4. Payment of application fees and deposit of escrow, if required, for plan review costs.
- E. Sixteen (16) or more copies of the Detailed Final Plan and all required supplementary data shall be submitted to the Municipal Secretary together with the required fees and escrow deposit as prescribed by resolution of the Board. The Municipal Secretary shall note the date of receipt and shall then forward:
 - 1. Five (5) copies of the Detailed Final Plan and application to the Planning Commission; and
 - 2. One (1) copy each to the Municipal Planner and the Municipal Engineer;
 - 3. Two (2) copies to the Board;
 - 4. Two (2) copies for the municipal files;
 - 5. One (1) copy to the municipal Historical Commission, where applicable;
 - 6. One (1) copy to the municipal Environmental Advisory Council;
 - 7. One (1) copy to the municipal Parks Board;
 - 8. One (1) copy to the municipal Shade Tree Commission;
 - 9. One (1) copy, referral letter and sufficient fee to the _____ County Planning Commission, when required by the Board;
 - 10. One (1) copy to other state and county agencies, including the _____ County Health Department, when required by the Board;
 - 11. One (1) copy to governing body of any adjacent municipality or municipalities if tract to be subdivided abuts or lies partially in that municipality;
 - 12. One (1) copy of the Sedimentation and Erosion Control Plan and application form to the U.S. Department of Agriculture Soil Conservation District, where applicable; and

13. One (1) copy of the Detailed Final Plan showing applicant's correct address to the Municipal Secretary.
- F. Where the final plan is for a minor subdivision, the applicant shall submit the plan in accordance with the requirements of Section 504 above.

SECTION 506 - Review Of Detailed Final Plan

A. General

1. The Detailed Final Plan shall conform in all important respects to the Conceptual Preliminary Plan as previously reviewed and approved by the Board, and shall incorporate all modifications and revisions specified by the Board in its approval.
2. The Detailed Final Plan and supporting data (including reports from the State Department of Environmental Protection, the _____ County Board of Health, the _____ County office of the USDA Natural Resources Conservation Service, and the _____ County Planning Commission) shall comply with the provisions of this Ordinance and those of the zoning ordinance. Failure to do so shall be cause for denying the plan (or, in situations where only minor details are missing and when the official approval deadline allows, tabling the plan).

B. Planning Commission Review

1. The Planning Commission will review the Detailed Final Plan and the recommendations of the Municipal Engineer and any other reviewing agencies, to determine its conformance with the requirements of this ordinance and with those of the zoning ordinance.
2. After such review, and prior to any action by the Board within the required ninety (90) day review period, the Planning Commission shall forward its recommendations, and its reasons to the Board and the applicant. If the plan includes land in any adjacent municipality and/or directly abuts its boundaries, then such notice and recommendation should also be transmitted to the governing body of the adjacent municipality.
3. No recommendations shall be made by the Planning Commission until the municipality has received the written report of the County Planning Commission, the Municipal Engineer, the state Department of Environmental Protection (DEP), the _____ County Health Department and the Department of Transportation, if applicable, and the approval of the _____ County Soil Conservation District, provided, however, that if these reports are not received within forty-five (45) days after transmittal of the Detailed Final Plan to these agencies, then the Planning Commission may act without having received and considered such report.

C. Board Review

1. Prior to the Detailed Final Plan review process, the Board should complete its review of the proposed Sewage Facilities Planning Module in accordance with DEP and _____ County Health Department regulations and procedures. When approved or adopted by the Board, the Planning Module shall be forwarded to DEP for review and approval.
2. No approval of the Detailed Final Plan shall be granted by the Board until the Municipality receives notification of DEP's approval of the Sewage Facilities Planning Module. Should such notification not be received within the time limitations for Detailed Final Plan approval in accord with the Act, the time limitations shall be extended for not more than ninety (90) days at the written consent of the applicant. If the applicant refuses to provide such written consent, the Detailed Final Plan shall be disapproved.

3. When a recommendation on a Detailed Final Plan has been submitted to the Board by the Planning Commission, such plan shall be placed on the agenda of the Board for its review and action.
4. Upon receipt of the Planning Commission's recommendation and other supporting information, the Board may, at one or more regular or special public meetings, review the Detailed Final Plan and shall, within the time limitations set forth herein below, either approve, approve with conditions, or disapprove the plan. Whenever the approval of a Detailed Final Plan is subject to conditions, the written action of the Board shall (1) specify each condition of approval; and (2) request the applicant's written agreement to the conditions within ten days of receipt of the Board's written decision.
5. If the Final Plan is not approved, the decision shall specify the defects found in the plan, shall describe the requirements that have not been met, and shall, in each case, cite the provisions of the Ordinance relied upon.
6. Notwithstanding the foregoing procedure, unless the applicant agrees in writing to extend the time period for decision, the Board shall render a decision on all Detailed Final Plans within the statutory time limitations.
7. The decision of the Board shall be in writing and shall be communicated to the applicant as required by the Act.
8. If at any time the applicant submits a revised Detailed Final Plan, it shall be deemed a new application and shall not be accepted unless it is accompanied by the applicant's written and executed agreement of a ninety (90) day extension of the period required by the Act for decision. No new application fee shall be required for any revision submitted within two years of the first final plan application.
9. Copies of the Detailed Final Plan, as finally approved with the appropriate endorsement of the Board, shall be distributed as follows:
 - a. At least three (3) copies to the applicant of which two (2) shall be recorded in accordance with Section ____.
 - b. One (1) copy to the Municipal Planning Commission.
 - c. One (1) copy to the County Planning Commission.
 - d. One (1) copy to the County Health Department.
 - e. One (1) copy to be retained in the municipal files.
 - f. One (1) copy to the Municipal Engineer. If a new street is proposed, an additional "as built" plan with deed of dedication application shall be submitted.

D. Conditions of Detailed Final Plan Approval

Approval of any Detailed Final Plan shall, in addition to any other applicable provisions of this ordinance, shall be subject to the following conditions:

1. The landowner shall execute a Subdivision Agreement in accordance with Section ___ of this ordinance, verifying that he agrees to construct all required improvements and common amenities, and further verifying that he guarantees completion and maintenance of these improvements and amenities through a type of financial security acceptable to the municipality.
2. Where applicable, the landowner shall execute an Escrow Agreement to cover the cost of all required improvements and common amenities, in accordance with Section ___ of this ordinance.
3. The landowner agrees, if requested, to tender to the municipality a deed of dedication in a form satisfactory to the Municipal Solicitor for streets and

improvements thereto, including street paving, water mains, fire hydrants, storm sewers, inlets, pumping stations and other appurtenances as shall be constructed as public improvements within the public right-of-way and are required for the promotion of public welfare, after all streets and improvements to be dedicated to the municipality are completed and are certified as being satisfactory by the Municipal Engineer. The Board may require that the applicant provide a certificate from a duly licensed title insurance company certifying that the title to be conveyed is good and marketable, free of all liens and encumbrances, except utility easements, before any property is accepted by the municipality.

4. Whenever the landowner is providing greenway land as part of the development, an easement in perpetuity restricting such open space against further subdivision or development shall be executed between the landowner and the Township or a conservation organization acceptable to the Township.
5. The landowner shall submit to the municipality all required permits, approvals or waivers from agencies having jurisdiction over ancillary matters necessary to effect the subdivision or land development, such as Pennsylvania Departments of Transportation, Environmental Protection or Public Utility Commission, U.S. Army Corps of Engineers or Department of Agriculture Soil Conservation District and the _____ County Health Department.
6. All final approvals or waivers required by Federal, State and County agencies for development in accord with the Detailed Final Plan including, but not limited to, approval of the Sewage Facilities Planning Module by the DEP, approval by the U.S. Department of Agriculture Soil Conservation District, and a highway occupancy permit, if required, from the state Department of Transportation shall be presented to the municipality.

ARTICLE 6 - Resource Conservation and Greenway Delineation Standards

Contents:

SECTION 600 – Applicability

SECTION 601 - Planning and Design Standards

SECTION 602 - Design Process For Residential Subdivisions With Greenway Lands

SECTION 603 - Greenway Design Review Standards

SECTION 604 - Dedication Of Greenway Land For Public Use

SECTION 605 - Resource Conservation Standards For Site Preparation and Cleanup

SECTION 600 - Applicability

The standards for resource conservation, as set forth in this Article, shall apply to all subdivision and land developments in the municipality. The standards for Greenway delineation shall apply to all subdivision and land developments within the Conservation Design Residential Overlay District.

SECTION 601 - Planning and Design Standards

A. General Standards to Minimize Adverse Impacts

All subdivisions and land developments shall avoid or minimize adverse impacts on the municipality's natural, cultural and historic resources, as defined below.

B. Groundwater Resources

This section is intended to ensure that the municipality's limited groundwater resources are protected for purposes of providing water supplies for its residents and businesses, and to protect the base flow of the Municipality's surface waters. These regulations shall be applied in conjunction with those provided for in other sections of this ordinance, dealing with groundwater conservation and replenishment.

1. The proposed subdivision and land development of any tract shall be designed to cause the least practicable disturbance to natural infiltration and percolation of precipitation to the groundwater table, through careful planning of vegetation and land disturbance activities, and the placement of streets, buildings and other impervious surfaces in locations other than those identified on the Existing Resources and Site Analysis Plan as having the greatest permeability where precipitation is most likely to infiltrate and recharge the groundwater.

C. Stream Valleys, Swales, Springs, and Other Lowland Areas

The municipality's Open Space Plan describes and maps stream valleys (which include stream channels and flood plains), swales, springs and other lowland areas as resources that warrant restrictive land use controls because of flooding hazards to human life and property, their ground water recharge functions, their importance to water quality and the health of aquatic communities, and their wildlife habitats. They are generally poorly suited for on-site subsurface sewage disposal systems.

1. The following activities shall be minimized:
 - a. Disturbance to streams and drainage swales.
 - b. Disturbance to year-round wetlands, areas with seasonally high water tables, and areas of surface water concentration.
 - c. Because of their extreme limitations, stream valleys, swales and other lowland areas warrant designation as greenway lands. They may also require adjoining buffer lands to be included in the Greenway, to be determined by an analysis of the protection requirements of such areas on a case-by-case basis. In certain instances, seasonal high water table soils may be excluded from the Greenway where it can be demonstrated that they are suitable for low density residential uses and conventional on-site sewage systems.

D. Woodlands

Woodlands occur extensively throughout the municipality, often in association with stream valleys and wet areas, poor and erodible agricultural soils, and moderate to steep slopes.

1. Woodland conditions within the municipality vary with respect to species composition, age, stocking, and health. They range from relatively recent post-agricultural young stands to mature mixed-age forests. Most woodlands in the Municipality 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. A closely related function is their enhancement of ground water recharge.
 - b. As a means of ameliorating harsh microclimatic conditions, in both summer and winter.
 - c. As a source of wood products, i.e., poles, sawtimber, veneer and firewood.
 - d. As habitats for woodland birds, mammals and other wildlife.
 - e. As recreation resources for walkers, equestrians, picnickers and other related outdoor activities.
 - f. As visual buffers between areas of development and adjacent roads and properties.
2. Because of their resource values, all woodlands on any tract proposed for subdivision or land development shall be evaluated by the applicant to determine the extent to which such woodlands should be designated partly or entirely as Greenway or development lands. Evaluation criteria shall include:

- a. Configuration and size.
 - b. Present conditions, i.e., stocking, health and species composition.
 - c. Site potential, i.e., the site's capabilities to support woodlands, based upon its topographic, soil and hydrologic characteristics.
 - d. Ecological functions: i.e., in protecting steep slopes, erodible soils, maintaining stream quality and providing for wildlife habitats.
 - e. Relationship to woodlands on adjoining and nearby properties and the potential for maintaining continuous woodland areas.
3. The evaluation of the tract's woodlands shall be undertaken by a forester, landscape architect, horticulturist or another qualified professional acceptable to the municipality. This evaluation shall be submitted as a report and made a part of the application for a preliminary plan. At a minimum, that report shall include one or more maps indicating boundaries and conditions of woodland areas accompanied by a report addressing the criteria in paragraph 1 above.
 4. In designing a subdivision and land development plan for any tract, the applicant shall be guided by the following standards:
 - a. Healthy woodlands exceeding one acre shall be preserved and designated as Greenway areas, to the maximum extent possible. Proposed site improvements shall be located, designed and constructed to minimize the loss or degradation of woodland areas.
 - b. Subdivisions shall be designed to preserve woodlands along roadways, property lines and lines occurring within a site such as streams, swales, stone fences and hedgerows. Such lines and the native vegetation associated with them shall be preserved as buffers between adjacent properties and between areas being subdivided within a property. Preservation shall include ground, shrub, understory and canopy vegetation.
 - c. Disturbance or removal of woodlands occupying environmentally sensitive areas shall be undertaken only when approved by the Board and on a limited, selective basis to minimize the adverse impacts of such actions. This shall include but not necessarily be limited to, vegetation performing important soil stabilizing functions on wet soils, stream banks and sloping lands.
 - d. No clearing or earth disturbance (except for soil analysis for proposed sewage disposal systems) shall be permitted on a site before the completion of subdivision and land development agreements. The determination of sight distance clearances along roadways shall be made graphically and not by clearing on-site prior to final plan approval.

E. Upland Rural-Agricultural Areas

These areas comprise fields, pastures, meadows, and former agricultural areas in early stages of woodlands succession, with fences, stone walls, tree copses and hedgerows, typically bordered by stream valleys and upland woodlands. These comprise the Municipality's historic working landscape, dotted with historic houses, barns and other structures. They give the municipality much of its rural character. They also contain the greatest concentration of prime agricultural soils. Because of their openness and high visibility, development in these areas is likely to be most readily seen and disruptive to the historic landscape. They sometimes provide habitat for wildlife, in conjunction with nearby woodlands and stream valleys. However, it is recognized that these areas also frequently offer the fewest constraints for development.

1. Several elements of these working landscapes lend themselves to incorporation into the municipality's Greenway network. These include prime agricultural soils and

natural features which visually punctuate the landscape, such as hedgerows, tree copses, stone walls, and visually prominent places such as knolls and hilltops.

2. These areas can also accommodate development, with preferred locations being the non-prime agricultural soils and lower topographic settings where development will be visually less obtrusive. Compact clustered residential designs, with coordinated architectural and landscape architectural themes, are encouraged in highly visible locations where future development cannot be avoided (such as at the far edge of open fields).

F. Slopes

Moderately sloping lands (15 to 25 percent) and steeply sloping lands (over 25 percent) are prone to severe erosion if disturbed. Erosion and the resulting overland flow of soil sediments into streams, ponds and public roads, are detrimental to water quality and aquatic life, and a potential hazard to public safety.

1. Areas of steep slope shall be preserved in accordance with Article ____ of the Zoning Ordinance and as required below.
2. All grading and earthmoving on slopes exceeding 15 percent shall be minimized.
3. No site disturbance shall be allowed on slopes exceeding 25 percent except grading for a portion of a driveway accessing a single family dwelling when it can be demonstrated that no other routing which avoids slopes exceeding 25 percent is feasible.
4. On slopes of 15 to 25 percent, the only permitted grading beyond the terms described above, shall be in conjunction with the siting of a single family dwelling , its access driveway and the septic system (which should typically be designed with a long, narrow drainage field following the land contours.
5. Grading or earthmoving on all sloping lands of 15 percent or greater shall not result in earth cuts or fills whose highest vertical dimension exceeds six feet, except where in the judgment of the Board no reasonable alternatives exist for construction of roads, drainage structures and other public improvements, in which case such vertical dimensions shall not exceed 12 ft. Roads and driveways shall follow the line of existing topography to minimize the required cut and fill. Finished slopes of all cuts and fills shall be as required to minimize disturbance of natural grades.

G. 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 municipality. Some of these have been carefully documented, e.g., by the Statewide Natural Diversity Inventory, whereas for others, only their general locations are known. Subdivision applicants shall take all reasonable measures to protect significant natural areas and features either identified by the Municipality's Map of Potential Conservation Lands or by the applicant's Existing Resources and Site Analysis Plan (as required in Section 502.C) by incorporating them into proposed Greenway areas or avoiding their disturbance in areas proposed for development.

H. Historic Structures and Sites

The municipality's documented historical resources begin with the _____ Indians in the early 18th century and extend through its colonial agricultural, residential and industrial development in the late 18th and 19th centuries. Many of the Municipality's historic structures and sites have been extensively researched and remain intact. The municipality's extensive historic records are maintained by its Historical Commission.

1. All subdivisions and land developments shall comply with Article ----, Historic Preservation Standards of the Zoning Ordinance.

2. Plans requiring subdivision and land development approval shall be designed to protect existing historic resources of all classes. The protection of an existing historic resource shall include the conservation of the landscape immediately associated with and significant to that resource, to preserve its historic context. Where, in the opinion of the Board, a plan will have an impact upon an historic resource, the developer shall mitigate that impact to the satisfaction of the Board by modifying the design, relocating proposed lot lines, providing landscape buffers, or other approved means.
3. Municipal participation, review and approval of the applicant's interaction with the State Historical and Museum Commission with regard to the preservation of historic resources, as required for DEP approval of proposed sewage disposal systems, shall be required prior to Detailed Final Plan approval.

I. Historic Rural Road Corridors and Scenic Viewsheds

The municipality's Open Space Plan identifies a number of historic rural roads in various parts of the municipality. All applications for subdivision and land development shall attempt to preserve the scenic visual corridors along such roads by incorporating them into Greenway areas or otherwise providing for building setbacks and architectural designs to minimize their intrusion. In instances, where such designs fail to satisfactorily protect corridors, applicants will be required to provide naturalistic landscape buffers to minimize their adverse visual impacts. The species specified for such buffers shall be selected on the basis of an inventory of tree and shrub species found in existing hedgerows and along wooded roadside edges in the vicinity of the development proposal.

J. Trails

1. When a subdivision or land development proposal is traversed by or abuts an existing trail customarily used by pedestrians and/or equestrians, the Governing body may require the applicant to make provisions for continued recreational use of the trail.
2. The applicant may alter the course of the trail within the tract for which 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 (For example: Bureau of State Parks publication Non-Motorized Trails).
 - c. The proposed alteration does not coincide with a paved road intended for use by motorized vehicles.
3. When trails are intended for public or private use, they shall be protected by a permanent conservation easement on the properties on which they are located. The width of the protected area in which the trail is located should be a minimum of ten feet. The language of the conservation easement shall be to the satisfaction of the Governing body upon recommendation of the Municipal Solicitor.
4. The land area permanently designated for trails for public use may be credited toward the greenway land requirement described in Section 104 of the Zoning Code.
5. An applicant may propose and develop a new trail. If said trail is available for use by the general public and connects with an existing trail, the land area protected for said trail may be credited toward the open space requirement described in Section 104 of the Zoning Code.
6. Trail improvements shall demonstrate adherence to principles of quality trail design.
7. Trails shall have a vertical clearance of no less than ten (10) feet.

8. Width of the trail surface may vary depending upon type of use to be accommodated, but in no case shall be less than three (3) feet or greater than six (6) feet.
9. No trail shall be designed with the intent to accommodate motorized vehicles.

SECTION 602 - Design Process For Residential Subdivisions With Greenway Lands

- A. Resource Inventory and Analysis.** The tract's resources shall be delineated on an Existing Resources and Site Analysis Plan, as required in Section 402.D.
- B. Four-Step Design Process.** Following the resource inventory and analysis, all residential subdivisions with greenway lands shall generally follow a four-step design process as described below. Applicants will be required to document the design process as described in Section 402.C.3.

1. Step 1: Delineation of Greenway Lands and Development Areas

Greenway lands and development areas shall be delineated according to the following procedure, as illustrated below, using as an example a hypothetical 50-acre subdivision parcel.

Total Tract Area	50 acres
Adjusted Tract Area (ATA)	40 acres
Minimum Greenway Requirements:	
Constrained Land	10 acres
Add	
Secondary Conservation Areas (50% of ATA)	20 acres
Total	30 acres
Development Area (50% of ATA)	20 acres

- a. All lands deducted from the gross tract to determine Adjusted Tract Area, shall be delineated in their entirety as "Constrained Land", comprising 10 acres in the illustration.
 - b. Additional minimum acreage requirements for Greenway areas consist of "Secondary Conservation Areas", to be calculated on the basis of the standards in Section 104 of the Zoning Ordinance. In the example, a minimum of 50% of the Adjusted Tract Area (or 20 acres) must be Class B greenway lands.
 - c. Total Greenway area requirements are the sum of Constrained Land and Secondary Conservation Areas which, in the example, comprise 30 acres. All primary Conservation Areas (flood plains, wetlands, and slopes greater than 25%) shall be contained within the greenway lands.
 - d. The locations and boundaries of Primary Conservation Areas shall follow the actual boundaries of floodplains, wetlands and slopes.
 - e. The locations and boundaries of Secondary Conservation Areas shall be based upon the applicant's analysis of the tract's resource features, using the design standards in Section 403. The applicant shall also be guided by any written recommendations provided by the municipality regarding the delineation of Secondary Conservation Areas lands, following the Site Inspection or the Pre-Sketch Conference.
 - f. Development areas constitute the remaining lands of the tract outside of the designated Greenway areas, which in the above example consist of 20 acres, where house sites, streets and lots are to be delineated in accordance with steps 2, 3 and 4 below.
- ### 2. Step 2: Location of House Sites

- a. Applicants shall identify house site locations in the tract's designated development areas, designed to: fit the tract's natural topography, served by adequate water and sewerage facilities, and provide views of and access to adjoining Greenway areas (without encroaching upon them in a manner visually intrusive to users of such areas). House sites should be located no closer than 100 feet and 50 feet from Primary and Secondary Conservation Areas, respectively.
3. Step 3: Alignment of Streets and Trails
 - a. With house site locations identified, applicants shall delineate a street system to provide vehicular access to each house in a manner conforming to the tract's natural topography and providing for a safe pattern of circulation and ingress and egress to and from the tract.
 - b. Streets shall avoid or at least minimize adverse impacts on the Greenway areas. To the greatest extent practicable, wetland crossings and new streets or driveways traversing slopes over 15 percent shall be avoided.
 - c. Street connections shall generally be encouraged to minimize the number of new cul-de-sacs to be maintained by the municipality and to facilitate easy access to and from homes in different parts of the tract (and on adjoining parcels).
 - d. A tentative network of trails shall also be shown, connecting streets with various natural and cultural features in the conserved greenway lands. Potential trail connections to adjacent parcels shall also be shown, in areas where a Municipal trail network is envisioned.
 4. Step 4: Design of Lot Lines

Lot lines for the subdivision should be drawn as the last step in the design procedure. They should follow the configuration of house sites and streets in a logical and flexible manner.

SECTION 603 - Greenway Design Review Standards

- A. **Prioritized List of Resources to be Conserved.** The design of greenway lands in any subdivision or land development plan shall reflect the standards set forth in Section 601, resources identified on the Map of Potential Conservation Lands and, to the fullest extent possible, incorporate any of the following resources if they occur on the tract (listed in order of significance):
 1. Stream channels, floodplains, wet soils, swales, springs and other lowland areas, including adjacent buffer areas which may be required to insure their protection.
 2. Significant natural areas of species listed as endangered, threatened, or of special concern, such as those listed in the Statewide Natural Diversity Inventory.
 3. Moderate to steep slopes, particularly those adjoining water courses and ponds, where disturbance and resulting soil erosion and sedimentation could be detrimental to water quality.
 4. Healthy woodlands, particularly those performing important ecological functions such as soil stabilization and protection of streams, wetlands and wildlife habitats.
 5. Areas where precipitation is most likely to recharge local groundwater resources because of topographic and soil conditions affording high rates of infiltration and percolation.
 6. Hedgerows, groups of trees, large individual trees of botanic significance, and other vegetational features representing the site's rural past.
 7. Class I, II and III agricultural soils as defined by the USDA Natural Resource Conservation Service.

8. Historic structures and sites.
9. Visually prominent topographic features such as knolls, hilltops and ridges, and scenic viewsheds as seen from public roads (particularly those with historic features).
10. Existing trails connecting the tract to other locations in the municipality. (see also Section 108.A)

B. Other Design Considerations. The configuration of proposed greenway lands set aside for common use in residential subdivisions shall comply with the following standards:

1. They shall be free of all structures except historic buildings, stone walls, and structures related to Greenway uses. The Governing body may grant approval of structures and improvements required for storm drainage, sewage treatment and water supply within the Greenway provided that such facilities would not be detrimental to the Greenway (and that the acreage of lands required for such uses is not credited towards minimum Greenway acreage requirements for the tract, unless the land they occupy is appropriate for passive recreational use).
2. They shall generally not include parcels smaller than three acres, have a length-to-width ratio of less than 4:1, or be less than 75 feet in width, except for such lands specifically designed as neighborhood greens, playing fields or trail links.
3. They shall be directly accessible to the largest practicable number of lots within the subdivision. Non-adjoining lots shall be provided with safe and convenient pedestrian access to greenway land.
4. They shall be suitable for active recreational uses to the extent deemed necessary by the Governing body, without interfering with adjacent dwelling units, parking, driveways, and roads.
5. They shall be interconnected wherever possible to provide a continuous network of Greenway lands within and adjoining the subdivision.
6. They shall provide buffers to adjoining parks, preserves or other protected lands.
7. Except in those cases where part of the greenway is located within private houselots, they shall provide for pedestrian pathways for use by the residents of the subdivision. Consideration shall be given to providing for public access on such trails if they are linked to other publicly-accessible pathway systems within the municipality. Provisions should be made for access to the greenway lands, as required for land management and emergency purposes.
8. They shall be undivided by public or private streets, except where necessary for proper traffic circulation.
9. They shall be suitably landscaped either by retaining existing natural cover and wooded areas and/or according to a landscaping plan to protect Greenway resources.
10. They shall be made subject to such agreement with the municipality and such conservation easements duly recorded in the office of the County Recorder of Deeds as may be required by the Governing body for the purpose of preserving the common open space for such uses.
11. They shall be consistent with the municipality's Comprehensive Plan and its Open Space Plan.

C. Ownership and Maintenance. Applicants shall demonstrate compliance with Greenway ownership and maintenance standards in Section 109 of the Zoning Ordinance.

SECTION 604 - Dedication Of Greenway Land For Public Use

- A. Land Setasides for Public Recreational Use and the "Fee-In-Lieu" Alternative

The following standards shall apply to new subdivisions. All actions by the Governing body under this section must also be consistent with the provisions of the state enabling legislation.

1. Applicants for new residential developments involving ten or more dwelling units shall be required to set aside five percent of their gross tract acreage as undivided recreational land designated for public usage. Such land shall be suitable for active and/or passive recreation, with at least half the land suitable for active sports, where such facilities are required by the Governing body.
2. In lieu of a setaside for public usage, two alternatives exist for the applicant proposing subdivision involving ten or more dwellings:
 - a. The applicant may offer a setaside limited to recreational usage by the residents of the proposed subdivision. If land is set aside in this manner for private recreational use, it shall also be permanently protected through a conservation easement enforceable by the municipality and/or a land trust, prohibiting future nonrecreational (or commercial recreational) uses.
 - b. The applicant may offer to pay a fee to the municipality in lieu of any recreational land setaside. Situations in which it would be appropriate for the municipality to accept such offers include cases where the land would not provide a particular public benefit because of its small size or location. Exceptions to this rule, where public use of relatively small land areas would still be appropriate, include situations in which the land could be used to buffer or extend public parks or public schoolgrounds, or could provide potential linkage in a future township trail network.
 - c. The decision whether to accept a fee-in-lieu offer by the applicant shall lie with the Board, which shall also establish the amount of the fee in lieu, based upon the municipality's estimated cost of acquiring land that is similar in area and attributes, which would better serve public recreational needs. In appraising alternative sites, the municipality shall be guided by the site selection criteria contained in its Open Space Plan. Such estimates shall be based on discussions with realtors or appraisers familiar with land values in the locality. All such fees collected shall be deposited in an interest-bearing account earmarked for recreational land or facility provision by the municipality, and the applicant shall be informed of the use to which the fee will be put. Alternatively, the Board may establish a flat fee (based on discussions with realtors or appraisers familiar with land values in the area) for general use with subdivision applicants.
3. In Option 3 and 4 subdivisions involving fewer than five dwelling units where, in the judgment of the Governing body, there would be no particular public benefit accruing from a public dedication (as described above), or from a setaside for shared private recreational usage among the subdivision lot owners, the applicant may offer to place a conservation easement on certain areas of land within individual houselots where certain environmentally-sensitive features are present, without conferring common access rights or privileges for the subdivision residents or the broader public. The percentage of land that is thus protected shall generally be not less than twenty percent (20%) of the gross land area of the subdivision. This land may be access-restricted not only from the public but also from other residents in the subdivision.
4. In Option 1 and 2 subdivisions with fewer than ten dwelling units, where there would be no particular benefit accruing from a public dedication (as described above), the recreational land that is part of the requirement for undivided open space shall be designated for private shared recreational usage among the subdivision lot owners.

SECTION 605 - Resource Conservation Standards For Site Preparation and Cleanup
A. Conservation Practices During Site Preparation and Clean-Up

1. Protection of Vegetation from Mechanical Injury. Where earthwork, grading, or construction activities will take place in or adjacent to woodlands, old fields or other significant vegetation or site features, the Governing body may require that the limit of disturbance be delineated and vegetation protected through installation of temporary fencing or other approved measures. Such fencing shall be installed prior to commencing of and shall be maintained throughout the period of construction activity.
2. Protection of Vegetation from Grading Change. Grade changes to occur at any location of the property shall not result in an alteration to soil or drainage conditions which would adversely affect existing vegetation to be retained following site disturbance, unless adequate provisions are made to protect such vegetation and its root systems.
3. Protection of Vegetation from Excavations
 - a. When digging trenches for utility lines or similar uses, disturbances to the root zones of all woody vegetation shall be minimized.
 - b. If trenches must be excavated in the root zone, all disturbed roots shall be cut as cleanly as possible. The trench shall be backfilled as quickly as possible.
4. Protection of Topsoil
 - a. No topsoil shall be removed from the site.
 - b. Prior to grading operations or excavation, topsoil in the area to be disturbed shall be removed and stored on site.
 - c. Topsoil removed shall be redistributed and stabilized as quickly as possible following the establishment of required grades for a project or project phase. All exposed earth surfaces shall be stabilized by hydroseeding on slopes of less than ten percent, and by sodding, hydroseeding, or rip-rap on slopes exceeding ten percent.
 - d. Grading and earthmoving operations shall be scheduled to minimize site disturbance during the period from November 1 to April 1, when revegetation of exposed ground is difficult.

ARTICLE 7 - Supplemental Design Standards for Option 5 Hamlets and Villages

Contents:

SECTION 700 – Purposes

SECTION 701 - Site Design and Building Location and Design

SECTION 702 - Streets and Streetscape Design

SECTION 703 – Modifications

SECTION 704 - Illustrated Design Principles

SECTION 700 - Purposes

- A. This article is established to provide opportunities for creating compact housing developments of a traditional character in the form of hamlets and villages.
- B. In order to ensure that new higher density development in the municipality will be compatible with historic village and hamlet building patterns in the rural parts of the County, and that they will reinforce the "sense of place" and neighborhood feeling experienced in traditional rural settlements, the standards herein are proposed to control the location, scale and physical character of such new development, as well as the manner in which they would fit into the existing pattern of fields, woodlands and developed areas.

SECTION 701 - Site Design and Building Location and Design

- A. **The Four-Step Site Design Process for Hamlets and Villages**

1. The design process for laying out hamlets and villages shall be a variation on the four-step process for conservation subdivisions, as described in Section 502.E of this Ordinance. In hamlets and villages, where traditional streetscapes and "terminal vistas" are of greater importance, Steps Two and Three are generally reversed, so that streets and squares are located during the second step, and house sites are located immediately thereafter. The first step is to identify greenway lands, including both Primary and Secondary Conservation Areas.

B. Standards in both Hamlets and Villages

1. All lots shall front onto a street or a green (except for flag lots, where permitted).
2. At least two-thirds of the buildings shall have pitched gabled roofs with roof pitches between 8/12 and 12/12, and the orientation of those gable ends shall be mixed, with some facing the street and others with the ridgeline parallel to the street.
3. Readers are referred to Section 704, Illustrated Design Principles.

C. Building Design Standards for the Mixed Use/Commercial Subdistrict

1. New commercial buildings may be either traditional in their architectural character, or be a contemporary expression of traditional styles and forms, respecting simply the scale, proportion and character of village shops. The massing of larger commercial buildings shall be softened in a variety of ways, including the use of projecting and recessed sections, to reduce their apparent overall bulk and volume.

To harmonize with the traditional scale of commercial buildings in historic hamlets and villages, new commercial buildings shall not contain more than 10,000 sq. ft. (above grade), and those with more than 6,000 sq. ft. of floorspace (above grade) shall be of two-story construction.

2. Buildings shall not be less than one and one-half stories in height, and at least half the buildings in any single development for commercial, mixed-use and institutional buildings shall be two stories in height, with respect to the average ground grade along the front building line.
3. Buildings shall generally be designed for multiple uses, with offices and/or residential units above, and shall generally have traditional sloping roofs with overhanging eaves. Desired roof materials include shingle (both wood and asphalt composition) and metal formed to resemble "standing seams." Roof color should be traditional (which encompasses a wide variety of hues, but which does not include white or tan composition shingles, or shiny unpainted metal). The use of dormers and gables is encouraged to provide visual interest.
4. Exterior wall materials may include stucco, wood clapboarding (including vinyl or aluminum imitation clapboard siding), native stone, or brick of a shape, color and texture very similar to that found in the historic villages and boroughs of the County. Specifically prohibited shall be brick that is white, tan, spray-painted, or used; except on rear walls, all forms of concrete block shall also be prohibited. In addition, concrete block and metal buildings shall also be excluded from this subdistrict.
5. Shopfront design shall be based upon historic examples in the area, with large display windows having low sills and high lintels. Traditional canvas awnings without interior illumination shall be encouraged, and all signs shall be of wood or metal, preferably with dark background colors and light-colored lettering.
6. Landscaping around commercial buildings and their parking lots shall emphasize native species trees, shrubs and flowers to reduce maintenance, help ensure longevity, and to reinforce the natural spirit of the area. Species should be selected partly on the basis of their visual interest at different times of the year (spring blossoms, summer foliage, autumnal berries, winter bark and foliage). Examples of appropriate shrub selections include viburnum, laurel, lilac, clethra (sweet

pepperbush), winterberry, chokeberry, holly and red-osier dogwood. Interesting non-native shrub species that are recommended include: caryopteris (bluebeard), pyrocantha (firethorn), winged euonymus (burning bush), and spirea. An excellent source book is Elizabeth DuPont's *Landscaping with Native Plants in the Middle Atlantic Region*, published by the Brandywine Conservancy in 1978.

D. Building Design Standards for Residential Areas

1. Single-family homes on the smaller village-scale lots (especially those less than 8,000 sq. ft.) shall generally be designed so that approximately two-thirds are oriented with their gable-ends facing the street. At least 35% of the houses shall have a covered front entry porch, raised a minimum of eighteen inches above ground level. When front porches are screened, they may be located within 10 feet of the front property line (those enclosed with windows shall observe the minimum 15 ft. front setback).
2. Homes may be located at or within five feet of side lot lines if that side either has no windows, or window sills are at least 64 inches above the finished floor elevation. Such design allows houses to be located off-center on their lots, so that one side yard may be larger and therefore provide more usable outdoor space.
3. Residences housing more than one family shall be designed to emulate traditional buildings of this nature in historic settlements in the County, or shall be designed to resemble large single-family residences.
4. Stucco and painted wood clapboard siding shall be encouraged, as shall pitched roofs with slopes between 8/12 and 12/12. Housing styles, shapes and materials should be varied, within the overall theme of traditional village dwellings found in the rural parts of the County (which may also include contemporary interpretations of vernacular building forms).
5. If garages, carports or other accessory structures designed for accessory parking of automobiles in the Residential Areas are front-loaded (i.e. having their large entry door facing the street), they shall generally be set back at least 10 feet further (see also Section 104.G.5.a) from the front property line than the foremost facade of the principal building facing the front property line (stoops, porticos, open colonnades and open porches excluded).
6. Off-street parking for multi-family residences shall generally be located at the rear of the lot, in garages accessed by lanes or alleys.

SECTION 702 - Streets and Streetscape Design

A. Street Design

1. New streets proposed to be created as a part of any development proposal shall be integrated closely with the municipality's Official Map of existing and future streets. The Official Map shall show the realignment and redesign of certain intersections and road segments to facilitate traffic flow and improve safety.
2. Rectilinear street layouts are generally preferred, with occasional diagonal elements to enhance visual interest, although curvilinear layouts shall be acceptable when designed to interconnect and to produce terminal vistas of protected open space or prominent structures.
3. Streets shall be aligned so that their terminal vistas are of greens or other open space, or civic or institutional buildings, wherever possible. (see also Section 104.G.2.c) Where this is not possible, every effort shall be made to terminate those streets with buildings of above-average size, whose architecture shall be encouraged to be special in one way or another (See Section 704, Illustrated Design Principles).

4. Streets shall be interconnected as far as practicable (employing cul-de-sacs only where essential), and they may also be supplemented with back lanes or alleys. Where cul-de-sacs are deemed to be unavoidable, continuous pedestrian circulation shall be provided for by connecting sidewalks that link the end of the cul-de-sac with the next street (or open space).
5. To the greatest extent practicable, streets shall be designed to have maximum lengths of 600 feet between intersections, and maximum lengths of 1,200 feet before terminating at three-way "T" intersections or angling off in a diagonal direction. (This design approach helps to reduce traffic speed, making the development more friendly to pedestrians.) Blocks greater than 600 feet long shall generally be provided with cross-block pedestrian connections at mid-block locations.
6. Streets shall be laid out to promote pedestrian circulation and ease of access from all points in the Residential Areas to the Village Mixed Use/Commercial Area.
7. Easements shall be reserved to permit streets to be extended to allow adjoining properties to be connected in the future, if so desired
8. Collector streets shall generally connect existing municipal roads to central greens in each subdistrict.
9. The street width standards listed below take into account the need for on-street parking spaces, which generally increase as lot widths decrease.

Table 702A.1 Street Design Standards for Hamlets and Villages

	Total Lanes	Parking Lanes	Pavement Width	Shoulders	R.O.W
Primary Collector					
No Parking	2	0	20' (22' curbed)	4' grassed	50'
Lots 80'+	2	0	22' (24' curbed)	4' grassed	50'
Lots 40' - 80'	3	1	28' (30' curbed)	4' grassed	50'
Lots <40'	4	2	34' (36' curbed)	4' grassed	50'
Secondary Collector					
Lots 80'+	2	0	20' (22' curbed)	4' grassed	50'
Lots 40' - 80'	3	1	26' (28' curbed)*	4' grassed	50'
Lots <40'	4	2	32' (34' curbed)*	none	60'
Local Access					
Lots 80'+	2	0	18' (20' curbed)	3' grassed	50'
Lots 40' - 80'+	3	2	24' (26' curbed)	4' grassed	50'
Lots <40'	3	2	26' (28' curbed)*	4' grassed	50'
Lanes or Alleys	1	0	12'	2' grassed	20'
Shared Drives	1	0	10'	3' grassed	N/A

* The paved width may be reduced by 6 feet when streets are "single-loaded" (lots on one side only), or when driveways are accessed only from rear service lanes or alleys.

B. Street Trees

1. The coordinated planting of deciduous shade trees within the right-of-way of all streets is a central unifying feature of development in villages and hamlets.
2. Such trees shall be 2" to 2.5" in diameter, measured at chest height, when planted, and shall be spaced at intervals no greater than forty feet along both sides of each street, including arterial roads, but not including rear access lanes or alleys.
3. Species shall be selected according to the following criteria:
 - a. cast moderate shade to dense shade in summer;
 - b. long-lived (over 60 years);

- c. mature height of at least 50 feet;
- d. be tolerant of pollution and direct or reflected heat;
- e. require little maintenance, by being mechanically strong (not brittle) and insect- and disease-resistant;
- f. be able to survive two years with no irrigation after establishment; and
- g. be of native origin, provided they meet the above criteria

Among the species that are recommended in this ordinance are sycamore or London Plane, sweet gum, red maple, green ash, Shademaster golden locust, littleleaf linden and Village Green Zelkova. For further relevant information, readers are specifically referred to Street Tree Factsheets, Henry Gershold, Editor, School of Forest Resources, Pennsylvania State University, 1989.

- 4. Readers are referred to Section 704, Illustrated Design Principles.

C. Streetscape Standards

- 1. Shade trees shall generally be planted in planting strips (sometimes called "tree lawns") at least four feet wide, located between the pavement or curb and the continuous sidewalk or footpath system (which shall also be required).
- 2. All village streets shall be provided with sidewalks, preferably of brick, stone or concrete paving block in commercial areas. Street lighting in villages shall utilize cast-iron posts that are decorative but not overly ornate and, in order to ensure consistency, the final decision on their style, height, color and brightness shall rest with municipal officials.
- 3. Sidewalks shall be constructed in villages along at least one side of all streets on which on-street parking is provided, and in front of civic, institutional or community uses (however, they are not required in back lanes or alleys). They shall be constructed of brick pavers, rectangular flagstones, or concrete "paving bricks" or "flagstones." Exceptions may be made for sidewalks of poured concrete, but not for asphalt.
- 4. In village commercial areas and in neighborhoods where lot sizes are 15,000 sq. ft. or less, on-street parking shall be provided in parking lanes parallel to curbs (which should also be required at such building densities, to channelize runoff and to protect the paved edge from damage by parked vehicles). Parking lanes shall be encouraged to be surfaced with alternative materials, textures or colors (such as asphalt with red-colored stone chips steamrolled in just after the asphalt is laid). Such on-street parking shall be supplemented, wherever necessary, by off-street parking areas that are screened from the street by landscaping and low fences or walls (vehicle "hood-height").
- 5. Buildings in the Village Mixed Use/Commercial Area shall generally be located close together with minimal-side yard areas, in order to form a fairly continuous row of shop fronts.
- 6. Readers are referred to Section 704, Illustrated Design Principles.

SECTION 703 - Modifications

- A. The Board may, with a positive recommendation from the Planning Commission and after a public hearing, permit by Conditional Use approval the modification of the provisions of this Article, in order to encourage a well-planned traditional town center. Applicants must demonstrate that such modifications would not substantially diminish the traditional character of the proposed development, and that they would be within the spirit of this

Article. However, in terms of modifying any dimensional requirement (lot area, width, setbacks, etc.), such modification may not be greater than twenty-five percent.

- B. Any conditional use to permit such a modification shall be subject to the following criteria:
1. The design and modifications shall be in harmony with the purposes and the land-use standards contained in this article;
 2. The design and modifications shall generally enhance the development plan, the central core area, the streetscapes, and the neighborhoods, or at least not be any less desirable than the plan that could be created in conformance with this article;
 3. The design and modifications shall not produce lots or street systems that would be impractical or detract from the appearance of the District, and shall not adversely affect emergency vehicle access or deprive adjoining noncommercial properties of adequate light and air.
 4. Increased residential density or intensification of nonresidential uses shall be offset by corresponding special efforts by the applicant to improve the appearance of the development through enhanced architectural and landscaping efforts.
 5. The applicant shall demonstrate that the proposed modifications will produce equal or better results, from the municipality's perspective, and represent the minimum modification necessary.
- C. If the Board determines that the applicant has met his/her burden, it may grant a modification of the requirements of this article. In granting modifications, the Board may impose such conditions as will, in its judgment, secure the objectives and purposes of this article.

SECTION 704 - Illustrated Design Principles

The illustrated design principles can be found on pages 196-222 in "Growing Greener: Putting Conservation into Local Plans and Ordinances" (1999, Island Press), the companion book to this CD-ROM. They were selected to provide guidance to applicants, designers, local officials, and interested residents, with respect to the intended ultimate visual appearance of the Hamlets and Villages. If a conflict occurs between the ordinance text and the information contained in the Illustrated Design Principles, the former shall prevail. These illustrations and their captions are not intended to be used as regulatory language but rather as guidelines. The illustrated commentary included throughout this VIC CD-ROM provide visual examples within the context of specific ordinance provisions.

For further information and considerably more detail about these design principles, readers are referred to a sister publication entitled "Crossroads, Hamlet, Village, Town: Design Characteristics of Traditional Neighborhoods, Old and New" (American Planning Association, Planning Advisory Service Report Number 487/488, September 1999) by Randall Arendt, pages 43-94.