Article 16. Conservation Design

16.1 PURPOSE

The purpose of conservation design is to achieve a balance between well designed residential development, meaningful open space conservation, and natural resource protection in the countryside by requiring conservation design instead of conventional subdivision. Conservation design standards guide development so that it locates and coordinates areas for development where the conservation of natural features is prioritized, and provides common open space areas for passive and/or active recreational use by residents of the development and, where appropriate, the larger community.

16.2 APPLICABILITY

Conservation design is required for subdivisions in the RR and SR Districts. The Planning Board may authorize conservation design in any residential district following an evaluation of the constrained land and conservation features analyses.

16.3 USES PERMITTED

Only single-family and two-family dwellings are permitted within a conservation design.

16.4 CONSERVATION DESIGN PROCESS

The following provides an overview of the conservation design process:

A. The conservation design subdivision application process is as described in Article 14 and in accordance with this Article.

B. Analysis of constrained land of the property is required, as identified in Section 16.5.

C. Calculation of base density based on remaining developable land.

D. Analysis of conservation features of the property is required, as identified in Section 16.6.

E. The Planning Board will not accept any application that does not include complete constrained land and conservation features analyses sufficient for the Planning Board to make its conservation findings.

F. Calculation of density bonus, if applicable.

G. All constrained land and the conservation features must be placed within the conservation easement.

H. The land area outside of the conservation easement, may be developed according to the density and design standards of Section 16.9.

16.5 CONSTRAINED LAND ANALYSIS

Constrained land is any land classified as:

A. Wetlands.

1. The conservation analysis must show all wetlands as defined by the Federal Clean Water Act and the NYS Department of Environmental Conservation (NYS DEC).

2. U.S. Fish and Wildlife Service National Wetlands Inventory maps, NYS DEC wetlands maps, and other sources required by the City may be used to identify wetlands.

3. If wetlands are present, a wetlands assessment must be submitted prior to consideration of a preliminary plat as required by the U.S. Army Corps of Engineers or the NYS DEC. The name and address of the individual who conducted the wetland assessment must be indicated on the development project plan.

4. Wetlands must be shown on the constrained land analysis by a line denoting the boundary of wetlands or a note stating that no wetlands exist on the site.

B. Watercourses. Topographic maps must be used to determine the presence of watercourses and drainage courses. If engineering studies provide the basis for topographic or flood plain information, they must be approved by a professional engineer.

C. 100-year floodplains as shown on FEMA flood insurance rate maps or more current sources of information.

D. Steep slopes over 25% of a minimum of 2,000sf of contiguous sloped area. The constrained land analysis must show existing slopes greater than 15%. Slopes between 15% to 25% must be distinguished from slopes greater than 25%.

16.6 CONSERVATION FEATURES ANALYSIS

A. Purpose

The purpose of the conservation analysis is to identify additional natural resources outside of constrained land to be preserved. The conservation analysis describes the importance and the current and potential conservation value of all land on the site. The conservation analysis shows those lands with conservation value including, but not limited to, the following:

1. Land exhibiting present or potential recreational, historic, cultural, ecological, agricultural, water resource, scenic, or other natural resource value, as identified in item B below.

2. Open space and recreational resources described in the City's Comprehensive Plan, Urban and Community Forest Master Plan, the Saratoga Springs Open Space Plan and the Saratoga Greenbelt Trail Plan, and any Natural Resources Inventory conducted by the City.

B. Conservation Features Analysis – Required Elements

A conservation features analysis must address, at a minimum, each element of this section, including statements that such resources are not present.

1. Sensitive Soils

The conservation analysis must show sensitive soils as identified on any soil survey prepared for a government body. Soil limitations on development must be noted on the conservation analysis. Severe soil limitations must also be noted and described, which are defined as having one or more of the following characteristics as identified below:

a. Seasonal high water table

b. Subject to flood hazard

c. Poor drainage

d. Wetland/hydric soil conditions

e. High shrink/swell potential

f. Shallow depth to bedrock

g. Excessive slopes

h. High susceptibility to erosion

i. Agriculturally significant soils

2. Woodlands
The conservation analysis must show woodlands indicated by the most current aerial photos from the City or County, or other available sources. Woodlands are areas of trees whose combined canopies cover a minimum of 80% of an area of one acre or more. Such areas must be delineated by a circumferential line extending to the outer perimeter of the tree canopies. Tree varieties and range of size must be indicated. If historic aerial photos of the woodlands are available, those must be included as part of the analysis.

3. Threatened and Endangered Species
The conservation analysis must show generally the habitat and location of flora and fauna designated as rare, threatened, endangered, in need of conservation, or listed as watch list species, as determined by the U.S. Fish and Wildlife Service, NYS DEC, or other sources required by the City, known to exist on the property proposed for development.

4. Existing Wildlife
A general description of existing wildlife seen or known to exist on the subject property must be set forth in a note on the conservation analysis. The note must address potential wildlife management problems (e.g., displacement, residential interactions, road crossings, movement corridors) related to the proposed development.

5. Cultural and Historic Resources
Any cultural or historic resources identified by the City, NYS Office of Parks, Recreation, and Historic Preservation, and any other known or identified cultural or historic resources.

6. Context
In addition to describing the conservation features on-site, an inventory of conservation features within 200 feet of the subject property's boundary is required. In addition to the conservation features outlined in this section, the context analysis should also show any constrained features (per Section 16.5 above) within this 200 foot area.

16.7 EXEMPTION FROM CONSERVATION DESIGN

If, based upon the conservation analysis, the Planning Board determines in its conservation findings that there is no reasonable basis for requiring a conservation subdivision, the Board may approve a conventional development of the site. Such determination will be made during the sketch plat process.

A. In order for the Planning Board to make such a determination, the applicant must demonstrate at least one of the following:

1. The land contains no substantial resources with conservation value and no areas offer an opportunity for restoration.

2. The acreage is too small to preserve a substantial amount of land with conservation value. This criterion cannot be evaded by piecemeal subdivision of larger tracts.

3. The lot configuration is unique and precludes preservation of a substantial amount of land with conservation value.

4. That there are extraordinary circumstances unique to the parcel that demonstrates that conventional subdivision is in the best interest of the adjacent neighborhoods.

B. The applicant must also demonstrate that the property does not adjoin other land that, when combined with open space on the subject parcel, would result in the preservation of a substantial amount of land with conservation value, including any portion of a designated trail corridor, regardless of whether or not the adjoining parcels have been protected as open space.

C. An approval of a conventional subdivision must refer to the conservation findings and may be conditioned upon the protection by conservation easement of select portions of the site identified in the constrained land and conservation analyses and findings as having conservation value.

16.8 CONSERVATION EASEMENT

A. Required Land Area for Conservation Easement

The preliminary plat must show the following land to be preserved by conservation easement:

1. Constrained Land

All land identified as constrained land, as defined in Section 16.5.

2. Conservation Features

a. Conservation features identified in the conservation features analysis, as described in Section 16.6, will be reviewed and analyzed by the Planning Board during the initial preliminary plat review to determine which of the identified areas are most important to preserve. The Planning Board will indicate which of the lands identified in the conservation features analysis are most important to preserve. The Planning Board will make the final determination as to which land has the most conservation value and must be protected from development by conservation easement.

b. The Planning Board will identify the following minimum amounts of land area of conservation features to be preserved in a conservation easement. These minimums are calculated based on land area minus all constrained lands.

i. In the RR District, a minimum of 50% of the conservation features land area.

ii. In the SR District and other residential districts, a minimum of 35% of the conservation feature land area.

c. As part of this analysis, the preliminary plat must also show preferred locations for intensive development and acceptable locations for less dense development.

d. Whenever the Planning Board approves a plat with protected open space, it must make written findings identifying the specific conservation values protected and the reasons for protecting such land (conservation findings).

B. Conservation Easement Requirements

The conservation easement will include all constrained lands and those conservation features identified by the Planning Board in item A above.

1. A perpetual conservation easement restricting development of the land identified in item A above and allowing use only for agriculture, forestry, passive recreation, protection of natural resources, or similar conservation purposes, pursuant to § 247 of the General Municipal Law and/or §§ 49-0301 through 49-0311 of the Environmental Conservation Law, is required. The ownership and maintenance of the land within the conservation easement must meet the standards of Section 15.8.C. Applicants must submit a digital file that indicates the location of the conservation easement that can be integrated into the City's GIS mapping system.

2. The conservation easement may be contained in a separate lot within the development, which does not include any other development. Alternatively, it may be included as a portion of one or more lots within the development where dwellings may be constructed on that portion of the lot not in a conservation easement.

3. Such conservation easement must be approved by the Planning Board and is required as a condition of final plat approval. The Planning Board will require that the conservation easement be enforceable by the City if the City is not the holder of the conservation easement.

4. The conservation easement must be recorded in the County Clerk's Office prior to or simultaneously with the filing of the final plat in the County Clerk's Office. Proof of such recording must be provided to the City prior to a building permit being issued.

5. A land management plan, approved by the Planning Board, must be included in the conservation easement. The conservation easement must provide that if the City Council finds that the land management plan has been violated in a manner that renders the condition of the land a public nuisance, the City may, upon 30 days written notice to the owner, enter the premises for necessary maintenance, and that the cost of such maintenance by the City will be assessed against the landowner or, in the case of an homeowner's association, the owners of properties within the development. If unpaid, it will become a tax lien on such property or properties.

6. The conservation easement must be clearly delineated and labeled on the final plat as to its use, ownership, management, method of preservation, and the rights, if any, of the owners of lots in the subdivision and the public to the land under the easement. The final plat must clearly show that the land is permanently preserved for conservation purposes by a conservation easement required by this section, and include deed recording information in the County Clerk's office for the conservation easement.

16.9 DIMENSIONAL AND SITING STANDARDS

The following dimensional and siting standards apply with a conservation design.

A. Density

The permitted residential density for the development as a whole is calculated as follows:

1. Subtract the constrained land (Section 16.8.A) from the total area of the parcel to determine developable land.

2. Divide the developable acreage by the minimum lot size for a single-family dwelling of the zoning district. Fractions of less than one-half are disregarded and fractions of one-half or more are rounded up. This determines the total number of lots allowed within the development.

3. The constrained land and 50% of the remaining developable land must be placed in conservation easement. The remaining land will include the dwellings.

4. Density may be increased by up to 20%, at the discretion of the Planning Board where it finds one of the following:

a. The project provides exceptional open space or public recreation benefits. Examples of such benefits include, but are not limited to: the provision of a new recreational opportunity available to the public in an area where there has not been such an opportunity; the provision of public access to an important natural or park area; and the permanent protection of an important environmental resource.

b. The project provides a desirable mix of affordable housing. Examples include the provision of at least 20% of the housing mix below the median housing price. Such houses or lots must be set aside for purchase by low and moderate income households, as those terms are currently defined by the City's Community Development Office. The Board may establish such other conditions with respect to the purchase and occupancy of affordable housing, as it deems appropriate.

5. There is no minimum lot size in a conservation design. The Planning Board will determine appropriate lot sizes in the course of its review of a conservation design based upon the purposes and design criteria established in this Article.

B. Dimensional Standards

The applicant will propose dimensional standards for lots within a conservation design in conformance with Table 16-A: Dimensional Standards for Conservation Design below. The Planning Board as indicated in Table 16-A below may modified the standards as part of the approval.

Table 16-A: Dimensional Standards for Conservation Design	
Minimum Lot Area	Determined by Planning Board
Minimum Lot Width	Determined by Planning Board
Maximum Building Coverage	Unless modified by the Planning Board: 2 or more acres: 20% 1 acre to less than 2 acres: 25% Less than 1 acre: 30%
Maximum Impervious Surface Coverage	Unless modified by the Planning Board: 2 or more acres: 20% 1 acre to less than 2 acres: 40% Less than 1 acre: 60%
Maximum Building Height	No modification allowed from underlying zoning district
Minimum Front Setback	20' unless modified by the Planning Board
Minimum Interior Side Setback	15' unless modified by the Planning Board
Minimum Corner Side Setback	10' unless modified by the Planning Board
Minimum Rear Setback	30' unless modified by the Planning Board

C. Lot Arrangement

1. Lots must be arranged in a manner that protects land of conservation value, and facilitates pedestrian and bicycle circulation. Permitted building locations or areas ("building envelopes") must be shown on the final plat.

2. For developments of more than 40 residential dwellings, dwellings must be clustered according to the following standards. The Planning Board may waive this requirement as part of conservations design approval.

a. Each residential cluster is limited to no more than 20 dwellings.

b. Residential clusters should be located a minimum of 150 feet apart lot line to lot line, separated by greenbelts or other natural features. The greenbelts may include bike paths or hiking trails, but no development is permitted within these separation areas.

c. Residential clusters must be located to minimize negative impacts on the natural, scenic, and cultural resources of the site.

d. Residential clusters must be sited to achieve the following goals:

i. Minimize disturbance to natural areas. Clear-cutting is prohibited.

ii. Prevent downstream impacts due to runoff through adequate on-site stormwater management practices.

iii. Protect scenic views of open land from adjacent roads to the extent practical.

e. Whenever possible, open space must connect with existing or potential open space on adjoining parcels and local or regional recreational trails.

f. Whenever possible, fragmentation of woodland areas and other natural ecosystems must be avoided. Contiguous swaths of undisturbed or restored habitat should be preserved to create corridors for the movement of wildlife and natural resources, and to promote biodiversity.

16.10 DESIGN STANDARDS

A. Landform

Landform is the gradient, slope form, and orientation of development in relationship to the shape of the land. Landform is the signature element that is essential for achieving an environment that has its own identity or sense of place.

1. Locally distinct natural landform features should generally be left in a natural state.

2. Natural rural landforms are typically soft and roll due to the rounding effect of wind and water over time. Geometric landforms may also be present in areas of shallow bedrock or seasonal flooding. The character and diversity of the natural landform should be reflected in grading to accommodate development.

3. Minimize cuts and fills. When grading is necessary, slopes should be graded to mimic existing slopes and blend smoothly into the surrounding landform. Graded slopes should be a maximum of 1:5 and gradually blend into surrounding slopes.

B. Vegetation

Vegetation is the review of varying plant forms and their relationship to development and its mass on the landscape. In addition to the benefits plants offer the ecological system (soil stabilization, clean air, wildlife habitat) their presence or absence, how they are configured or arranged, and their species has a significant influence on development character. In the rural environment vegetation, not structures, is the primary determinant of how far we can see and where we look. Every effort should be made to:

1. Preserve existing vegetation patterns and species mix and density.

2. Select and place new vegetation in ways that enhance the indigenous vegetation characteristics.

3. Vegetation in undeveloped rural areas is typically clustered. Rural vegetation should not be in geometric patterns that are associated with the urban environment.

4. Use existing vegetation and topography to screen new buildings if possible.

C. Structures

The height, placement, form, and pattern of building envelopes can establish an urban or rural character to any development. The intent of this section is to identify building envelopes, forms and patterns that are complementary to and reflective of rural characteristics.

1. Building envelopes in rural areas should be designed to maximize the preservation of the site's natural features (e.g., landform, vegetation), whereas, in more urban environments, sites are more often modified to accommodate the building.

2. The placement of building envelopes in relationship to rights-of-way critically affects the character of a community. Varied setbacks provide a different experience than a street where buildings are placed uniformly along a street.

3. Rural placement is historically deeper and more varied than in urban environments and therefore recommended.

4. When building envelopes must be placed in open fields they should be oriented to and reflect the alignment and orientation of the site's natural features.

5. Site building envelopes so that treetops and crest lines of hills as seen from public places and roads will screen future buildings. Use vegetation as a backdrop to reduce the prominence of the structure. Wherever possible, open up views by selective cutting of small trees and pruning lower branches of large trees, rather than by clearing large areas or removing mature trees.

6. The dominant visual context from the rural roads should be of natural and agricultural features, with structures visually subservient. Typically, development should be interior lot development with 70% of the immediate highway viewshed preserved.

7. The following structural guidelines apply only to structures in conservation subdivisions, which are also located in architectural review districts. The intent in these areas is to have the mass and roof forms of structures contribute to the rural character of the development. These guidelines are examples of the preferred way to design and site uses but they should not considered the only acceptable solution.

a. Massing of structures or structural elements influences rural character. Historically, rural buildings were often an assemblage of additions. These additions over time created a complexity of roof forms that have become icons associated with our rural agrarian environments.

b. Rural roof form options include, but are not limited to, symmetrically pitched or hip roofs with or without gables and horse barn-type roof ends.

D. Circulation Systems

Circulation systems are comprised of both vehicular, pedestrian, and bicycle systems. In general, rural systems are curvilinear in alignment, a pattern that evolved out of historic systems following the lines of least resistance (e.g., stream corridors) following natural landforms.

1. Whenever possible, roads (and the resultant lot layout) should be planned and designed so the site's cultural and environmental features are preserved and enhanced.

2. Vehicular and pedestrian circulation systems should retain and reuse historic farm roads, railroads, trolley lines and lanes. This guideline allows a development to build upon the site's historic context while minimizing clearing and disruption of the landscape. Care should be taken to apply this guideline only where its implementation would not destroy the historic lanes, hedgerows, and stonewalls it was meant to preserve. Otherwise, vehicular and pedestrian circulation systems should be arranged to reflect the patterns of the site landform, vegetation, water bodies and vegetation massing.

3. Minimize clearing of vegetation at the edge of the road, clearing only as much as is necessary to create a driveway entrance with adequate sight distance. Use curves in the driveway to increase the screening of buildings.

4. Rural road edges are historically unprotected (e.g., no curbs or gutters, with only a shoulder for user safety).

5. Trail systems connecting destination areas should be designed in accordance with the guidelines of the Saratoga Greenbelt Trail Plan, comprised of flexible materials (e.g., asphalt, stone dust, bark, wood chips), and connect areas of concentrated development.

6. Trails should be informal in nature and occur in rear yards.

7. Sidewalks should only be used to connect facilities within areas of concentrated development.