

166 SOUTH MAIN STREET, SUITE 201 ~ ROCKLAND, ME 04841 (207) 594-2299 ~ WWW.MIDCOASTPLANNING.ORG

Compilation of Provisions on Hillside and Ridgeline Protection

The following is a Compilation of Provisions on Hillside and Ridgeline Protection for consideration in the drafting or amending of municipal land use ordinances. New development is occurring increasingly on ridgelines and other high visibility areas for the coastal vistas they provide. Currently, many communities in our region do not regulate this type of development adequately, leaving these areas vulnerable to unplanned or poorly planned development.

Hillside and ridgeline development causes erosion through increased water and pollution runoff that impacts prospective residents as well as those who live at lower elevations nearby. Drainage problems can even lead to landslides. Development on steep slopes (above 15%) requires expensive infrastructure improvements (like septic systems, driveways and roadways) that are difficult to construct and maintain. Such development often results in the creation of crash prone roadways that may limit access for emergency response vehicles (fire trucks and ambulances). Some of these areas are windswept and thus susceptible to wildfires. Residential development at high elevations can compete with existing recreational uses and trails frequented by long time residents. Economically, recreation supports the tourism upon which a number of local businesses depend. Hillside and ridgeline development can threaten natural habitats. Fundamentally, inappropriate development along hillsides and ridgelines can degrade the visual and scenic qualities that often define a community's natural character.

Through the comprehensive planning process, citizens can identify and prioritize which areas should be preserved. Protection can occur through the adoption of land use ordinance provisions and through conservation efforts, like voluntary purchases and easements. It can be very helpful for planning committees and planning boards to see a range of ordinance options in use throughout the country currently. Accordingly, this Compilation may be of assistance for communities deciding what types of provisions could meet their needs. Please contact the Mid-Coast Regional Planning Commission for more information and assistance

Compilation of Provisions on Hillside and Ridgeline Protection

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Significant Ridgeline Protection (Excerpts)

Source: Los Angeles County, CA Zoning Ordinance

- Ridgelines are defined as the line formed by the meeting of the tops of sloping surfaces of land. Significant ridgelines are ridgelines which, in general, are highly visible and dominate the landscape. The location of the significant ridgelines within ______ District(s), and the criteria used for their designation, are set forth on the official Significant Ridgeline Map, which is adopted by reference as part of this ordinance, and on the map and corresponding appendix following this Section.
- The highest point of a structure that requires any permit shall be located at least 50 vertical feet and 50 horizontal feet from a significant ridgeline, excluding chimneys, rooftop antennas, wind energy conversion systems, and amateur radio antennas.
- Where structures on a lot or parcel of land cannot meet the standards prescribed by subsection, above, a variance shall be required. In addition to the required findings set forth in Ordinance, findings shall be made that:
 - o alternative sites within the property or project have been considered and eliminated from consideration based on physical infeasibility or the potential for substantial habitat damage or destruction if any such alternative site is used; and
 - o the proposed project maintains the maximum view of the applicable significant ridgeline through the use of design features for the project such as, but not limited to, minimized grading, reduced structural height, clustered structures, shape, materials, and color that allow the structures to blend with the natural setting, and use of locally indigenous vegetation for concealment of the project.

Model Ordinance for Ridgelines/Hillsides/Viewshed Protection

(Excerpts) Source: NH Department of Environmental Services

•	PURPOSE: The purpose of the Protection District is to protect the
	scenic and ecological resources associated with lands characterized by high
	elevations, steep slopes, and visual sensitivity in a manner that allows for
	carefully designed, low impact development.

• DELINEATION: The _____ Protection District is an overlay district is defined by a visual resource inventory dated _____. The results of the visual resource strategy will be shown on the Visual Resource Map, which is hereby incorporated into this ordinance.

DEFINITIONS:

Design Guidelines: A set of guidelines defining parameters to be followed in a site or building design or development.

Site Disturbance: Any activity that removes the vegetative cover from the land surface.

Visual Impact: A modification or change that could be incompatible with the scale, form, texture or color of the existing natural or man-made landscapes.

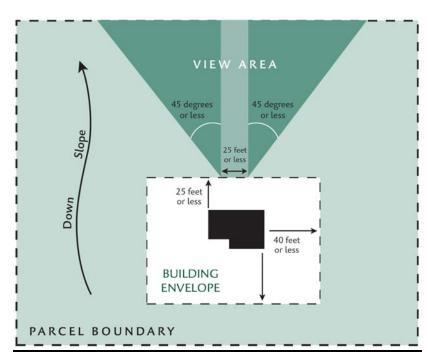
Visual Resource Map: The map depicting the visually sensitive areas, as determined by the visual resource inventory.

Visual Resource Inventory: A system for minimizing the visual impacts of surface disturbing activities and maintaining scenic values. The inventory consists of a scenic quality evaluation, sensitivity level analysis, and a delineation of distance zones

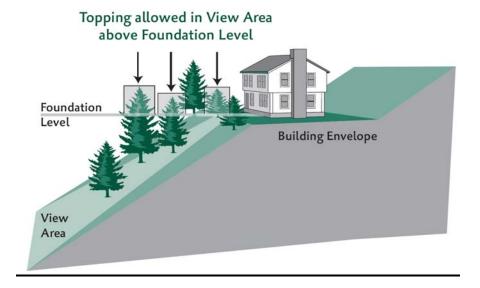
• APPLICATION REQUIREMENTS:

- Uses that will cause more than 20,000 square feet of site disturbance must show the buildable area in two-foot contours.
- An engineering plan will be prepared by a professional engineer that shows specific methods that will be used to control soil erosion and sedimentation, soil loss, and excessive stormwater runoff, both during and after construction.
- A hydrology, drainage, and flooding analysis will be included that shows the effect of the proposed development on water bodies and/or wetlands in the vicinity of the project.
- A grading plan for the construction site and all access routes will be prepared.
- o Architectural plans and renderings clearly depicting all proposed structures to scale and their location on the site in relation to the physical

- and natural features of the parcel, including the proposed grade of the building area and finished floor elevations. Drawings should clearly display building elevation and architectural design, including building materials, exterior colors and window fenestration. All structures proposed, including outbuildings and garages are to be shown.
- A landscaping plan showing existing vegetation and proposed landscaping and clearing plans showing proposed type, size, and location of all vegetation to be preserved and/or installed, along with other landscaping elements such as gazebos, berms, fences, walls, etc. Special attention should be given to existing/ proposed vegetation adjacent to buildings for visibility and screening purposes. A species list of existing vegetation and a plan for maintenance of the existing and proposed landscape should be included. Such a plan shall address specific measures to be taken to ensure the protection and survival, and if necessary, replacement of designated trees during and after the construction and/or installation of site improvements.
- DESIGN GUIDELINES: In order to reduce the visual impact of development in the ______ Protection District, all proposed structures shall meet the following design guidelines:
 - O **Building Envelope:** The building envelope permitted in this district is a rectangle with an up-slope boundary 40 feet or less from the building, side boundaries 40 feet or less from each side of the building, and a downslope boundary 25 feet or less from the building. Accessory structures shall be built within the building envelope. Building envelopes shall be at least 30 feet from property lines.



• Clearing for views: In order to develop a view, trees may be removed beyond the building envelope for a width of clear cutting not to exceed 25 feet and extending outward therefrom at an angle of 45 degrees or less on both sides, to a point down-slope where the tops of the trees are at the same elevation as the ground floor of the building.. The 25-foot opening may be at any point along the down-slope boundary.



- Natural/neutral colors will be used.
- o Reflective glass will be minimized.
- o Only low level, indirect lighting shall be used. Spot lights and floodlights are prohibited.
- No portion of any structure shall extend above the elevation of the ridgeline.
- Structures shall use natural landforms and existing vegetation to screen them from view from public roads and waterways to the extent practicable.
- Cuts and fills are minimized, and where practical, driveways are screened from public view.
- Building sites and roadways shall be located to preserve trees and tree stands.
- COSTS: All costs pertaining to the consideration of an application, including consultants fees, on-site inspections, environmental impact studies, notification of interested persons, and other costs shall be borne by the applicant and paid prior to the planning board's final action.

Hillside and Ridgeline Overlay District (Excerpts)

Source: Escondido, CA Zoning Code

- INTRODUCTION: The hillside protection regulations contained in this section shall apply to all development located within the hillside and ridgeline protection overlay district, as defined in ______, except as specifically noted below. The standards provided with these sections are in addition to the provisions of the underlying land use district and to other applicable provisions of the _____ Zoning Code. Grading plans and building plans shall also be checked for conformance with this section prior to approval. Specific plans need to be in general conformance with this section or have to clearly demonstrate the benefits of any deviation from those standards. The hillside protection regulations shall not be applied to preclude the reasonable development of one single-family residence on a legally created parcel.
- EXEMPTIONS: The hillside protection regulations shall not apply to the following types of projects:
 - Repair or reconstruction of homes damaged or destroyed by fire or other cause;
 - Projects for which a grading or building permit was issued prior to the
 effective date of the ordinance codified in this chapter, which permit was
 still valid as of said effective date and which has not since expired;
 - Orading necessary to correct a slope failure or other ground failure if such correction is deemed by the municipal engineer to be an emergency, i.e. a situation where life and/or property is threatened. Such corrections might include buttressing or replacement of a slope failure, repair of earthquake damage, removing a slide from a roadway, or similar actions;

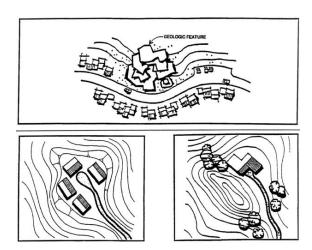
 - Local public streets or private roads which are necessary for access to the portion of the site to be developed on slopes of less than thirty-five (35) percent, provided no less environmentally damaging alternative exists;
 - Trails for passive recreational use according to the approved parks and trails master plan;
 - Development of public utility systems, including water reservoirs, and not including private antennas, provided that findings of fact are made that the least environmentally damaging alignment has been selected;
 - Final maps recorded, and tentative tract maps and parcel maps approved and/or deemed complete prior to the date of adoption of the ordinance codified in this chapter. However, development, grading, and landscaping that have not been specifically approved with the approved map shall be

reviewed for compliance with these regulations to the extent possible within the framework of the approved plans.

DESIGN GUIDELINES:

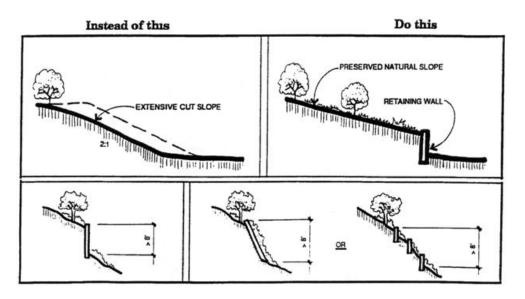
- NATURAL SLOPES BETWEEN FIFTEEN (15) PERCENT AND TWENTY-FIVE (25) PERCENT: In addition to other applicable provisions of this article, all development including grading on natural slopes between fifteen (15) percent and twenty-five (25) percent should be designed according to the following guidelines:
 - All development should be sited to avoid potentially hazardous areas and environmentally sensitive areas as identified in the open space element of the general plan or as part of the environmental, review, as well as to avoid dislocation of any unusual rock formations or any other unique or unusual geographic features (see figure 1);
 - Natural drainage courses should be preserved, enhanced, and incorporated as an integral part of the project design to the extent possible. Where required, drainage channels and brow ditches should follow the existing drainage patterns to the extent possible. They should be placed in inconspicuous locations and receive a naturalizing treatment including native rock, colored concrete, and landscaping, so that the structure appears as an integral part of the environment;
 - Orading should be limited to the extent possible and designed to retain the shape of the natural landform (see figure 1). Padded building sites are allowed, but site design and architecture techniques (such as custom foundations, split level designs, stacking and clustering) should be used to mitigate the need for large padded building areas. Grading must be designed to preserve natural features such as knolls or ridgelines. In no case should the top of a prominent hilltop, knoll, or ridge be graded to create a large building pad;

Figure 1: Sensitive Areas



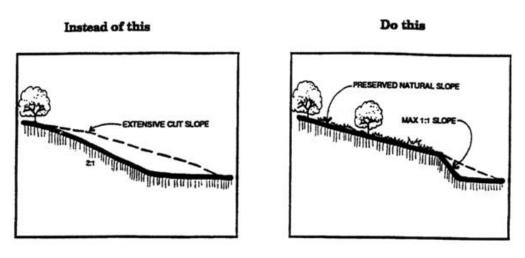
o The use of retaining walls, plantable walls, and terraced retaining structures is encouraged when such use can eliminate the need for extensive cut or fill slopes. Retaining walls should typically have a height of five (5) feet or less. Plantable walls should be used instead of retaining walls above six (6) feet in height. Terraced retaining structures should be considered on an individual lot basis when their use can avoid the need for extensive manufactured slopes and retaining walls (see figure 2);

Figure 2: Use of Retaining Walls



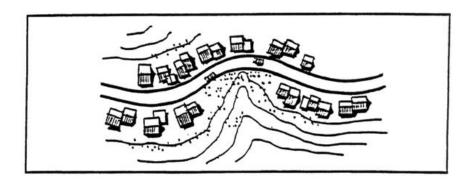
 Slopes steeper than two to one (2:1), appropriately designed by a geotechnical engineer, may be permitted subject to Planning Board approval when such slopes preserve the significant environmental characteristics of the site or substantially reduce the need for extensive cut and fill slopes (see figure 3);

Figure 3: Cut Slopes



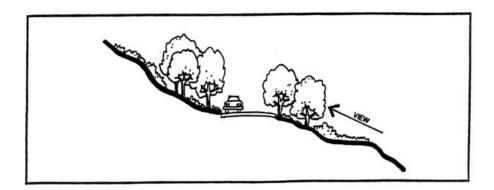
- All roads should comply with the design standards for rural roads;
- Circulation should be aligned to conform to the natural grades as much as possible within the limits of the Municipality's street design standards (see figure 4);

Figure 4: Road Design



- Grading for the construction of access roads or drainageways shall be minimized so that the visual impacts associated with said construction are mitigated to the greatest extent possible;
- o Common drives in single-family developments should be considered if grading is reduced by their use;
- The construction of access roadways or driveways should be accompanied by sufficient berming and landscaping/erosion control so that visual impacts associated with said construction are promptly mitigated (see figure 5);

Figure 5: Screening Impacts



- Accessory buildings on sloping lots. If the municipal engineer determines that no hazard to pedestrian or vehicular traffic will be created, a garage or carport may be built to within five (5) feet of the street right-of-way line, if:
 - The front half of the lot or building site slopes up or down from the established street grade at a slope of twenty (20) percent or greater.

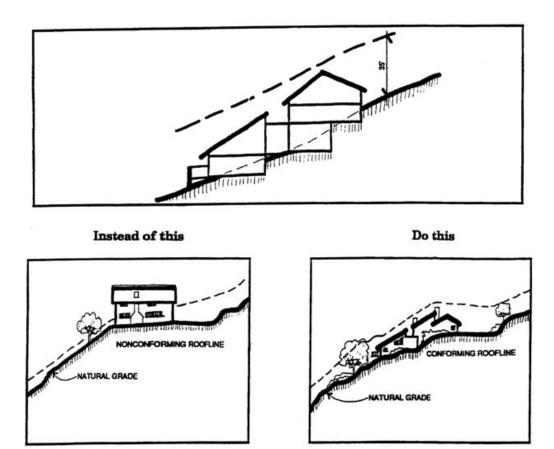
- If the elevation of the front half of the lot or building site is more than four (4) feet above established street grade. Such garage or carport may not extend across more than fifty (50) percent of the street frontage of the lot or building site.
- SLOPES BETWEEN TWENTY-FIVE (25) PERCENT AND THIRTY-FIVE (35) PERCENT: In addition to other applicable provisions of this article, all development including grading on natural slopes between twenty-five (25) percent and thirty-five (35) percent should be designed according to the following guidelines:
 - o Grading should be utilized only for the construction and installation of roads, utilities, garage pads and other limited pad grading which is shown to be sensitive to the existing terrain.
 - O Proposed structures should utilize split pads, stepped footings and grade separations in order to conform to the natural terrain (see figure 6). Detaching parts of a dwelling such as a garage, utilizing below grade rooms, and using roofs on lower levels for the deck space of upper levels should be considered. Other structural designs such as stilt or cantilevered foundations and earth-sheltered or earth-bermed building which fit the structure to the natural contours and minimize grading, may be considered on a case-by-case basis. Deck construction with excessively high distances between the structure and grade should be avoided.
 - Rear yard should not exceed twenty (20) feet measured parallel to the slope if such yard requires a grading exemption.
 - Accessory structures, swimming pools, tennis courts, and similar uses should not be constructed if such construction requires a grading exemption.
 - O Single-level residential structures should be oriented such that the greatest horizontal dimension of the structure is parallel with, and not perpendicular to, the natural contour of the land (see figure 6).

Figure 6: Home and Design Location

Instead of this Do this EXTREME STILT AND CANTILEVER DESIGNS SHOULD NOT BE USED Instead of this Do this

- Building height should be as permitted by the underlying zoning as measured from the natural grade at any point of the structure (see figure 7).
- The slope of the roof should be oriented in the same direction as the natural slope, and in developments that include a number of individual buildings, variation should be provided to avoid monotony (see figure 7).

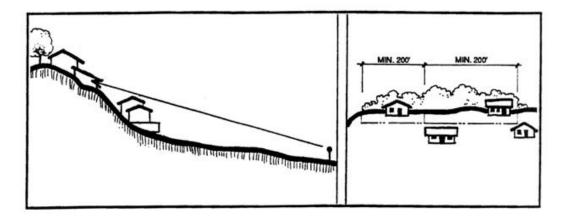
Figure 7: Building Height/Roof Slope



- Architectural treatment should be provided on all sides of the structure visible from adjacent properties, roadways, or public rights-of-way. Building materials and color schemes should blend with the natural landscape of earth tones for main and accessory structures, fences, and walls. Reflective materials or finishes should not be used.
- SLOPES OF THIRTY-FIVE (35) PERCENT AND OVER: No development or grading should occur on slopes of thirty-five (35) percent or greater, except as described in above.
- INTERMEDIATE RIDGES: Development in proximity to intermediate ridgelines should be avoided. However, in case that such development occurs, the following guidelines shall apply in addition to other applicable provisions of this article (see figure 8 for reference):
 - Only single-story structures or portions of multiple single-story-stepped structures designed to conform to the site shall be permitted to project above the ridgeline;
 - The minimum width of the lot measured parallel to the protected ridge at the proposed building site is not less than two hundred (200) feet;

- Grading should conform to the natural terrain to the extent possible.
 Extensive manufactured slopes and retaining walls should be avoided. In no case should the top of a ridge be graded to provide a large building pad;
- Any building or structure in proximity to an intermediate ridge should be located and designed to minimize its impact upon the ridgeline. Techniques such as use of subordinate or hidden location, split foundations adjusted to the slope, single-story structures, roofline following the slope, and colors and materials that blend with the natural environment should be used;
- Landscaping should be utilized to recreate the linear silhouette and to act as a backdrop for structures. Trees that grow to at least one and a half times the height of the structure should be planted between buildings to eliminate the open gap and blend the rooflines into one continuous silhouette.

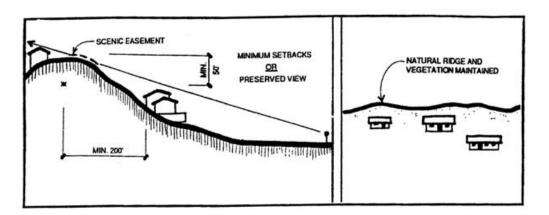
Figure 8: Site Distance/Lot Widths



- SKYLINE RIDGES: Development in proximity to skyline ridges shall conform to the following standards (see figure 9 for reference):
 - o The ridgelines' natural contour and vegetation should remain intact with development maintaining an undisturbed minimum setback of two hundred (200) feet measured horizontally from the center of the ridgeline on a topographic map, or fifty (50) feet measured vertically on a cross section, whichever is more restrictive. Lesser setbacks may be authorized if it can be demonstrated that no structure or portion of a structure will obstruct the view of the ridge as seen from major points defined during the application process. Points of view to be used for the visual analysis shall generally be taken along major roads including ; and major public open space areas including ______, as applicable to the proposed project. The exact points of view will be from the most critical points as determined by the combination of points from which the proposed development is most visible and points at which the highest public use occurs (e.g. playfields, picnic areas, etc.). The distance of the viewpoints from the ridgeline shall generally be no more than five (5) miles and no

- less than one-half (½) of a mile. The sensitive viewshed areas and the exact points of view for each proposed project will be identified prior to the project submittal to the satisfaction of the director. The decision of the director will be appealable to the planning commission.
- The area along a skyline ridge should be dedicated to the Municipality as a scenic easement not intended for public access in conjunction with any development which may occur on the property. The owner should be responsible to retain, maintain, preserve, and protect the public views of these areas in their natural state without obstruction by structures. A scenic easement should not prohibit clearing of brush or planting of vegetation which is necessary to reduce fire hazards.
- Development of one (1) single-family home on a lot legally created prior to adoption of this ordinance will be exempt from the requirements of this section.

Figure 9: Scenic Ridgelines



Steep Slope Protection Model Ordinance (Excerpts)

Source: 10 Towns Great Swamp Watershed Committee, NJ

- PURPOSE: The purpose of this ordinance is to regulate the intensity of use in areas of steeply sloping terrain in order to limit soil loss, erosion, excessive stormwater runoff, the degradation of surface water and to maintain the natural topography and drainage patterns of land.
- APPLICABILITY: This ordinance shall be applicable to any subdivision, site plan or land disturbance application located in the municipality as defined in the Municipal Land Use Law or any project defined by the Soil Erosion and Sediment Control Act. Land disturbance for the purpose of this ordinance shall mean any activity involving the clearing, cutting, excavation, grading, filling, storing, transporting of land or any other activity which causes land to be exposed to the danger of erosion.

• REQUIREMENTS:

- On slopes of 25% or greater, no development, re-grading or stripping of vegetation shall be permitted. Any disturbance for roadway crossings or utility construction in areas of 25% slopes or greater are considered variance conditions and the applicant must affirmatively demonstrate that the roadway or utility improvements are necessary in the sloped area. The sloped area to be developed, re-graded or stripped of vegetation shall be drawn on the development plans for each individual lot.
- The maximum disturbance allowed in slope areas between: 20.0% to 24.9% shall be 20%.
- The maximum disturbance allowed in slope areas between: 15.0% and 19.9% shall be 40%.
- The maximum disturbance allowed in slope areas between: 0 to 14.9% may be 100%.
- Site design and grading on slopes greater than 15% shall provide the minimum disruption of view corridors and scenic vistas and shall preserve significant natural topographic features to the greatest extent possible.
- Steep Slope disturbance of an area less than _____ square feet shall be permitted on any parcel.
- SITE PLAN REQUIREMENTS: For all earth moving activities on slopes of 15% or greater, the Applicant shall submit a site plan prepared by a Professional Engineer. The site plan submitted shall be reviewed by the Municipal Engineer. The Municipal Engineer shall determine if the site plan as submitted is complete and in conformance with the ordinance requirements. The Municipal Engineer shall recommend acceptance or rejection of the plan or may require that specific

conditions be complied with in order for the plan to merit acceptance. The site plan submitted shall be reviewed by the municipal engineer. The municipal engineer shall accept or reject the plan as submitted or may require that specific conditions be complied with in order for the plan to meet approval. No building permit shall be issued and no grading or site clearing shall occur until a site plan including all of the above items has been reviewed and approved by the municipality. The Applicant's site plan as prepared by a Professional Engineer will include at a minimum the following:

- Slopes in classes of 0-14.9%, 15-24.9% and greater than 25% based on two (2) foot contour analyzed on ten (10) foot vertical intervals.
- Location of all waterbodies including but not limited to streams, lakes and wetlands.
- o Existing natural and topographic features.
- o Location of all proposed and existing buildings and streets.
- Location of all existing vegetation including meadow, forest and scrub lands broken down by those areas of vegetation which will be removed as well as vegetation to be preserved; specifications for re-vegetation shall also be included.
- Specific methods which will be utilized to control soil erosion and sedimentation, soil loss and excessive stormwater runoff both during and after construction.
- A statement and description of the stability of the soils on site and the appropriateness of the construction method proposed.
- Hydrology, drainage and flooding analysis to include a statement on the effect of the proposed development upon water bodies or wetlands in the vicinity of the project.
- A statement describing the underlying geology attesting to the stability of the site.
- o Calculations of the area of proposed disturbance of each slope class on each proposed lot as well as within any proposed road right-of-way.
- o Grading plan for the construction site and all access routes.
- PERFORMANCE STANDARDS: All development proposals which propose development on steep slopes shall conform to the following performance standards:
 - Lands to be preserved in 100 percent open space due to the presence of steep slopes may be offered for dedication to the municipality, a private land trust or a non-profit agency in order to preserve and maintain the area in its natural state.
 - The use of conservation easements on steep slopes shall be encouraged to preserve the area in perpetuity.
- EXEMPTIONS: Land development plans which were approved prior to the adoption date of this ordinance shall be exempt from these requirements.

• COMPATIBILITY WITH OTHER PERMIT AND ORDINANCE REQUIREMENTS: Development approvals issued pursuant to this ordinance are to be considered an integral part of development approvals under the subdivision and site plan review process and do not relieve the applicant of the responsibility to secure required permits or approvals for activities regulated by other applicable codes, rules, acts or ordinances. In their interpretation and application, the provisions of this ordinance shall be held to be the minimum requirements for the promotion of the public health, safety, general welfare and the protection of water quality.

Ridgeline and Hillside Overlay District (Excerpts)

Source: Zoning Regulations, Stowe, VT

- PURPOSE: The purpose of the Ridgeline/Hillside Overlay District (RHOD) is to protect the scenic and ecological resources associated with lands characterized by high elevations, steep slopes and visual sensitivity in a manner that allows for carefully designed, low-impact development.
- SUBMISSION REQUIREMENTS: The planning board may require one or more of the following:
 - Orading Plan: Existing and proposed contours at a maximum of five (5) foot intervals for the area surrounding the proposed development, such area to be of sufficient size to show the relationship of the development to the surrounding terrain.
 - O Lighting Plan: Location, type and height of all exterior lighting (including security lighting) are to be shown on the site development plan. Lighting studies may be required and would include photometric analyses of exterior lighting as well as a review of any impacts interior lighting may have on nighttime visibility through windows, such as the visibility of light through building fenestration.
 - O Visibility Studies: Viewshed analyses, line of site sections, site photography and other means to assess the visual impact of the proposed application. On site measures such as plywood and pole mock-ups, and survey tape layout of site elements may be also be required in the event the site is deemed to be sensitive by the Planning Board or its designee.
 - Stormwater Management/Erosion Control Plan: An adequate stormwater drainage and erosion control plan, prepared by a registered Vermont engineer, shall be requested when the average slope of the site is steep/severely steep or there are major headwater streams and/or major drainage areas and waterways located on the site.

- Architectural Plans and Renderings: Building design drawings clearly depicting all proposed structures to scale and their location on the site in relation to the physical and natural features of the parcel, including the proposed grade of the building area and finished floor elevations. Drawings should clearly display building elevation and architectural design; building materials, exterior colors and window fenestration. All structures proposed, including outbuildings and garages are to be shown.
- Landscape Plan: Existing vegetation and proposed landscaping and clearing plans showing proposed type, size and location of all vegetation to be preserved and/or installed, along with other landscaping elements such as gazebos, berms, fences, walls, etc. Special attention should be given to existing/proposed vegetation adjacent to buildings for visibility and screening purposes (within at least thirty (30') feet. A species list of existing vegetation and a plan for the maintenance of the existing and proposed landscape should be included. Such a plan shall address specific measures to be taken to ensure the protection and survival, and if necessary, replacement of designated trees during and after the construction and/or installation of all site improvements.
- O Access Plan: A plan including existing roads, ROWs and trails; proposed roads, trails, walks, paths, parking areas, etc. Such a plan would include proposed paving materials, slopes of proposed access routes and erosion control measures. This plan might be combined with the Stormwater Management/Erosion Control Plan and should include road profiles as well.
- TECHNICAL ASSISTANCE: The Planning Board may seek the assistance of technical experts, such as engineering or architectural professionals, to provide independent analysis related to specific applications. Such experts will be compensated in accordance with the Municipal Fee Schedule.

• STANDARDS:

- All development, including grading, clearing and construction of driveways, shall provide for the retention of native topsoil, stabilization of steep hillsides, prevention of erosion, and consequent sedimentation of streams and watercourses. Peak stormwater discharge from the site after development shall not exceed pre-development levels for a two (2) year/twenty four (24) hour storm event and existing drainage patterns will not be altered in a manner to cause an adverse impact on neighboring properties, municipal highways or surface waters.
- Forest management activities designed as pre-development site preparation, including road and driveway construction, clearing and/or grading for house-sites and septic systems or related work, shall be

- reviewed by the Planning Board under these regulations. Where a landowner fails to submit pre-development site preparation plans to the Planning Board for review, the Board may limit development to the non-impacted portion of the property and/or require the site to be restored or re-vegetated prior to development.
- o If the project is on a forested hillside, there will be no significant exposure of buildings, and all development shall be minimally visible and blend in with surroundings in winter months. The amount and location of clearing adjacent to structures shall be limited; additional tree planting may be required in instances where such planting is needed to visually interrupt the portion of structures visible from defined vantage points.
- Clearing of vegetation at the edge of the road should be minimal, clearing only as much as necessary to create a driveway entrance with adequate sight distance and proper drainage control.
- Clearing for views should be limited, with narrow view openings between trees and beneath tree canopies being a desirable alternative to clearing large openings adjacent to building facades. View clearing should involve the selective cutting of small trees and the lower branches of large trees, rather than removing mature trees.
- On wooded sites, existing forest cover should be maintained adjacent to proposed building sites to interrupt the façade of buildings, provide a forested backdrop to buildings and reduce or eliminate the visual impact of new development from vantage points.
- o Buildings and structures should not be sited on high points, outcroppings or prominent knolls within the project site.
- When building on slopes, the preference is to set buildings into topography using partial earth sheltering. Try taking advantage of the topography by building multi-level structures with entrances on more than one level (i.e. walk-out basements, garages under buildings). Where possible, development should take place on the portions of a lot where the slopes are less than fifteen (15) percent. No development should occur on land where the slope is greater than twenty (20) percent.

Basic Model for Site Plan Review (Excerpts)

Source: Basic Model for Site Plan Review, Maine State Planning Office

- RIDGELINE PROTECTION: When a proposed development is located on a hillside that is visible from a public street, road, water body, or facility, the development must be designed so that buildings, structures, and other improvements do not extend above the existing ridgeline or alter the ridge profile significantly when viewed from the public streets, roads, water bodies, or facilities. This provision may be waived for communication towers, spotting towers, and similar facilities that must be located above the ridgeline for operational reasons.
- HILLSIDE DEVELOPMENT: When a proposed development is located on a hillside that is visible from a public street, road, water body, or facility, the development must be designed so that it fits harmoniously into the visual environment when viewed by the public from public areas. In predominantly natural environments, site clearing must be minimized and vegetation must be retained or provided to minimize the visual intrusion of the development. In developed environments, the appearance of the new development, when viewed by the public from public areas, must be compatible with the existing visual character in terms of scale, massing, and height to the maximum extent reasonable.

Site Plan Review - Mountainsides (Excerpts)

Source: Town Code, Lake George, NY

- In highly visible areas, such as mountainsides, existing and introduced native vegetation should be used to blend the structure with the surrounding landscape. Selective cutting of vegetation should be utilized to provide a view from within the structure while minimizing the structural intrusions upon the visual landscape.
- Buildings should not be silhouetted against the skyline. Buildings should be sited below the crest or ridgeline or hills to preserve a natural topographic and vegetative profile.
- Hillside cuts for roads or other site development areas of high visibility should be stabilized and vegetated with native species to avoid highly contrasting unnatural landforms.
- The use of exterior materials, textures and colors, preferably earth tones, shall be consistent with the surrounding mountainside. The use of reflective materials shall be minimized.
- The location, height, design, arrangement and intensity of exterior lighting shall minimize glare and shall be directed and shaded to prevent objectionable light

from adversely impacting the visual landscape. Buildings shall be lit to the minimum extent that is necessary to provide safe ingress and egress to the structure.

Subdivision Design Guidelines (Excerpt)

Source: Subdivisions of Land, Town of Alfred, ME

• When a proposed subdivision contains a ridgeline identified in the Comprehensive Plan as a visual resource to be protected, the plan shall restrict tree removal and prohibit building placement within 50 feet vertical distance of the ridge top. These restrictions shall appear as notes on the plan and as covenants in the deed.

High Elevation Areas (Excerpts)

Source: Zoning Ordinance, Camden, ME

 APPLICABILITY: This section applies to lands more than 500 feet above mean sea level, as shown on the High Elevation Areas map located in the Code Enforcement Office. Land uses in high elevation areas shall be limited to residential, agricultural, forest management, and non-intensive recreational activities, except that within the Rural Recreation District, ski trails and related facilities also shall be allowed.

• SPECIAL SPACE AND BULK STANDARDS:

- O For lots wholly within the high elevation area, the minimum lot size in the ______ District shall be 7 acres, with a maximum residential density of one unit per 7 acres; and the minimum lot size in the _____ shall be 4 acres, with a maximum residential density of one unit per 4 acres. Elsewhere, the minimum lot size shall be 3 acres, with a maximum residential density of one unit per 3 acres.
- o Maximum ground coverage of that portion of the lot in a high elevation area shall be five percent.

• SPECIAL PERFORMANCE STANDARDS:

- Except as provided below, existing vegetation shall be retained as a natural visual screen between structures located more than 500 feet above mean sea level and public roadways below this level.
- Existing vegetation may be removed to allow driveway access, not to exceed 20 feet in width, to structures.

- Tree cutting for noncommercial or forest management purposes is permitted, provided that no more than 40 percent of existing trees five or more inches in diameter, measured two feet above the ground, are removed from any contiguous stand or grouping of trees. In no case shall the area of continuous clearing exceed 7,500 sq. ft.
- No development, tree cutting, or clearing of land shall be allowed on slopes which are in excess of 25 percent in their natural state. Roads, driveways, or other access ways shall not be constructed on slopes which are in excess of 25 percent in their natural state, either in high elevation areas or en route to high elevation areas.
- The highest point of any structure in a high elevation area within 1,000 feet of any segment of a ridge line shown on the High Elevation map on file in the Municipal Office shall be at least 10 feet below the elevation of said segment. If the site is wooded, the height of the structure shall not exceed 75 percent of the average height of the tree canopy within a 100-foot radius of the proposed building site.
- Any structure built in a high elevation area shall be finished with materials and colors that blend into the natural setting so as to minimize visual impacts.

FURTHER READING:

Bureau of Land Management. Manual H-8410-1 – *Visual Resource Inventory*. Washington, DC: U.S. Department of the Interior, Bureau of Land Management.

DeWan, Terry. 2008. *Scenic Assessment Handbook (DRAFT)*. Terrence J. DeWan & Associates. Prepared for the Maine State Planning Office.

Faunce, Robert F. 2007. *Protecting Local Scenic Resources: Community-Based Performance Standards*. Lincoln County Planning Office. Prepared for the Maine State Planning Office.

LID Guidance Manual for Maine Communities: Approaches for implementation of Low Impact Development practices at the local level. 2007. Horsley Witten Group, Newburyport, MA. Prepared for the Maine State Planning Office.

Olshansky, Robert. 1996. *Planning for Hillside Development*. Planning Advisory Service Report No. 466, American Planning Association, Chicago.