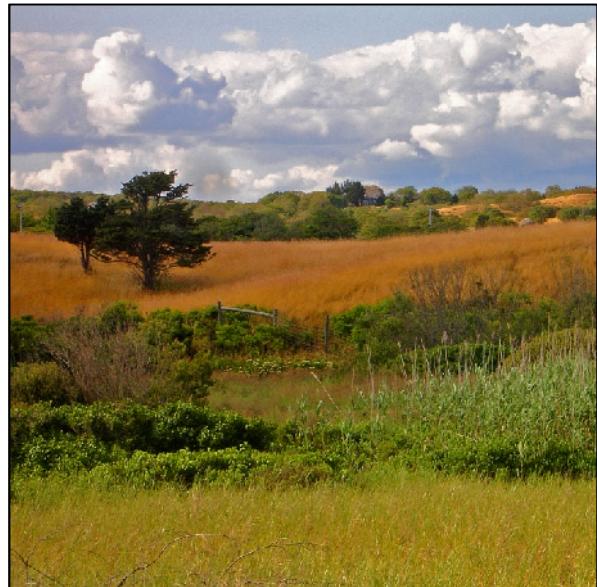
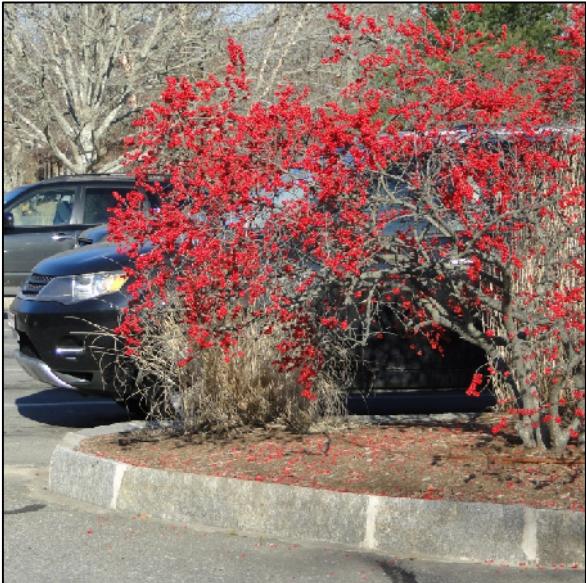


## MVC POLICY FOR DRI REVIEW

# Site Design and Landscape



This policy gives guidance to applicants seeking approval of a Development of Regional Impact (DRI) by the Martha's Vineyard Commission regarding Site Design and Landscape. The policy seeks to preserve and restore natural habitat and vegetative communities, to minimize the environmental and visual impacts of roads, driveways, parking lots, and structures, and to integrate with existing topography. This document also includes guidelines that will be used to evaluate proposed development projects referred to the Commission.

This policy is one of a series prepared to help Applicants and members of the public understand how the Martha's Vineyard Commission evaluates proposed Developments of Regional Impact (DRI), as mandated by its enabling legislation, Chapter 831 of the Acts of 1977 as amended.

The Commission is mandated to weigh the benefits and detriments of proposed developments to determine whether they should be approved, approved with conditions, or denied. Consult the Commission's website ([www.mvcommission.org/DRI](http://www.mvcommission.org/DRI)) or office (508-693-3453) to obtain the other documents. This policy reflects MVC practices in reviewing subdivisions and development over the past generation. It is set forth in order to assist Applicants in preparing proposals that address the Commission's concerns.

The Commission will use this policy during review of the benefits and detriments of a DRI and to formulate conditions attached to the DRI if it is approved. It should therefore be used by the Applicant to help design projects and could serve as the basis of proposals, or "offers", to mitigate anticipated detriments. Applicants are invited to consult the MVC's DRI Coordinator and Commission staff for help in identifying which policies apply to their project.

This policy is generally a good indication of the Commission's concerns and can help the Commission evaluate the merits of a proposal. However, the Commission weighs the overall benefits and detriments of all aspects of a project, and evaluates each proposal on its own merits. Based on the particular circumstances of each proposal, the Commission could deny a project that respects some or even all of the policy or might approve one that does not meet all parts of the policy. The Commission recognizes that there might be special circumstances whereby deviations from the policy are appropriate.

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Adopted by the Martha's Vineyard Commission on November 29, 2012.

This policy was written in part by an intern funded through the Edna Bailey Sussman Foundation

## 1. INTRODUCTION

### Background

Many people move to or visit Martha's Vineyard because of its diverse and distinct environment, and character, so different from off Island. The Island's natural environment includes beaches, woodlands, and fragile coastal ponds. Much of the Island is globally rare habitat. For centuries, the Vineyard was composed of small villages and towns, linked by rural roads lined with farm fields, meadows, woods, and ocean views, with a limited number of houses and other buildings spaced relatively far apart in the landscape. In built-up areas, the landscape design reflected the local traditions of each town. People's impression of the Island's character was and still is largely affected by what they see as they drive along our roads or boat along our coasts.

In the 1970s, the Island's traditional settlement pattern of compact town and villages contrasting with a natural rural countryside, started to change. Rapid development tripled the population and number of buildings on the Vineyard, and development extended farther from town centers into formerly rural areas. This led to a profound change in the distinctive appearance of many parts of the Island as buildings and landscapes were installed that were more typical of off-Island development. This included large asphalt parking lots in front of stores and the replacement of vast swaths of native habitat with extensive lawns that require extensive maintenance including heavy use of fertilizers and pesticides, mowing, and irrigation.

The MVC's Site Design and Landscape Policy describes how, with careful planning, we can continue developing or redeveloping the Island in a way that not only protects and reinforces the Island's distinctive character and environment, but also begins to restore those areas where these features were undermined. In rural areas we can ensure that the natural character of our scenic roads, vistas, hilltops, and coastal areas remain unspoiled by requiring that new structures are carefully sited to minimize their impact on habitat and wetlands, and that vegetative buffers are preserved. In town areas, we can ensure that the landscape character reflects local traditions. And throughout the Island, we can ensure that fences close to the road are low and open, and that the visibility of signage and lighting is minimized.

### Using this Policy

The first step in planning a project should be doing a site inventory and analysis – documenting existing topography, wildlife habitat and other vegetation, buildings and other structures, as well as views and vistas from land and water, and other factors that should influence the site design. This document has been developed to help the applicant to prepare their application so it meets the intent of the Site Design and Landscape Policy. The aim is to give guidance and predictability to applicants and their design professionals, so they can arrive at acceptable proposals as efficiently and cost effectively as possible.

- Section 2 – Policy lays out the planning Goal and Objectives and sets forth the Policy.
- Section 3 – Guidelines provides a number of best practices to help develop design proposals that meet the intent of each policy.

- Section 4 – Application of the Policy describes how the policy is used in the MVC's DRI process. This section includes the submittal requirements for DRI applications.
- Appendix 1 – Glossary defines many of the terms used in this policy. Terms defined in the glossary are generally capitalized and italicized in the text.
- Appendix 2 – Lists of Available Documents and Maps lists of supporting documents and maps available on the Commission website that are to be used in conjunction with this policy.

The DRI Coordinator at the Commission will assist the applicant, by answering questions, and providing copies of maps and related planning materials

### Notes to Applicants

- These policies and guidelines apply to a wide range of situations that may be reviewed by the MVC as DRIs: subdivisions and new buildings; commercial, institutional, and residential projects; development in-town or rural areas. Not all policies and guidelines pertain to a given application. Applicants should use the headings and work with the DRI Coordinator to identify which sections apply to their proposal.
- For simplicity sake, many of the illustrations refer to small buildings on single lots. They are intended to illustrate principles that would apply to subdivisions as well as to larger building projects of the type generally referred to the Commission as DRIs.
- It is recommended that applicants not remove major trees, carry out clear cutting, or undertake any other site work for a property that will be reviewed as a DRI until the project including its landscaping has been approved. Removal of significant vegetation may end up resulting in increased costs and/or depths of buffers to re-establish the adequate mass of vegetative buffering or area of habitat that is needed for DRI approval. (see section 3.4)
- If a previously developed property is being redeveloped or modified, to the extent that it requires DRI review, every attempt should be made to meet the goals of this policy on the entire property.
- Every DRI proposal must meet town regulations such as building setbacks. In addition, development in delineated wetlands requires a permit under the Massachusetts Wetlands Protection Act, administered by the town conservation commission. Some parts of the Island – such as Moshup Trail in Aquinnah, the Oak Bluffs Harbor, and Upper Main Street in Edgartown – have their own more detailed site planning and landscape guidelines. Consult your town hall for these requirements.

## 2. POLICY

This section includes the overall goal, seven general objectives, and twenty specific policies.

### Goal

The goal of this policy is to promote site design, landscaping, and lighting of development projects which fit into their surrounding context, particularly the cultural and historical built environment, and in rural areas, the natural systems.

### Objectives

The specific objectives are to ensure that the Site Design and Landscape of development projects on Martha's Vineyard consider and promote the following.

- Open Space: Identify and protect significant open space on the property.
- Biodiversity: Preserve and restore natural habitat and viable populations of native species within the Island's ecosystems, crucial for the health of the system.
- Recreation: Provide for the enjoyment of and access to nature without negatively impacting natural resources
- Character: Preserve scenic landscapes and public vistas. Reinforce traditional development patterns both in town and in rural areas.
- Water Quality: Minimize the negative impacts of landscape construction and maintenance on water quality through stormwater management, maximizing natural filtration, and limiting use of landscaping chemicals.
- Working Landscapes: Preserve and develop farming and other traditional land-based economic activities.
- Hazard Mitigation and Climate Change: Minimize the impacts of natural disasters, and prepare for sea-level rise and the increasing number and severity of storms. Preserve and increase biomass that helps reduce greenhouse gases and mitigate climate change locally and globally.

### Specific Policies

#### 1) Site Layout

- A. Development Envelopes: For properties in rural areas as well as in-town parcels larger than one acre, delineate Development Envelopes to define the area where development will take place and where open space will be preserved or created.
- B. Habitat: Preserve and restore areas of habitat that contribute to biodiversity.
- C. Fields: Preserve existing fields or restore as necessary.
- D. Location of Buildings and Other Facilities: Buildings should be sized, set back, and oriented in a way that respects the character of their surroundings and mitigates any visual impact.
- E. Topography: Preserve the existing natural topography as much as possible.
- F. Historical and Archeological Resources: Inventory and protect significant historical and archeological resources.

- G. Hazard Mitigation and Climate Change: Locate and design structures to minimize the risk of damage from storms, flooding, and other natural disasters.
  - H. Public and Recreational Access: Provide for critical links in the Island's networks of Shared Use Paths and trails, including continuous waterfront access in the centers of the down-Island towns, to the greatest extent possible.
- 2) Roads, Driveways, and Parking
- A. Roads and Driveways: Design new roads and driveways to minimize their impact and be consistent with the character of the surrounding area.
  - B. Parking: Minimize the visual impact of parking lots and provide adequate shade.
- 3) Grading, Drainage, and Stormwater Management
- A. Stormwater Management: Design each project to protect or restore the natural hydrology of the site so that the overall integrity of the watershed is protected. Sites should be designed to maintain water on the property and allow as much water to infiltrate as possible.
- 4) Vegetation
- A. Removal of Existing Vegetation: Preserve existing trees and other vegetation as much as feasible, rather than clear-cutting and re-landscaping a site.
  - B. Vegetative Buffers: Use vegetative buffers to screen, or at least mitigate, the view of new development from public roads, protected open spaces, and from the ocean and ponds.
  - C. Plant Species Selection: Select appropriate plant species to support habitat, contribute to the visual character of the areas, and ensure the success of a planting without the use of irrigation, fertilizers, and pesticides.
- 5) Fencing and Stone Walls
- A. Fences: Fences facing the public way should be avoided if possible, or should be open and low to reduce their visual impact.
  - B. Stone Walls: Preserve existing stone walls and ensure that new stone walls are built in the traditional Vineyard style.
- 6) Exterior Lighting
- A. Lighting Types: Exterior lighting should be kept to a strict minimum in terms of number of fixtures, wattage, height, and visibility, and lights should be kept on the minimum amount of time, compatible with providing needed safety and convenience of users and preserving dark skies to the degree possible.
- 7) Construction and Maintenance
- A. Construction: Protect the landscape during construction.
  - B. Ensure Adequate Maintenance of Landscaping: The approved plantings must be maintained for the life of the project.

### 3. GUIDELINES

This section provides explanations and suggestions for each of the policies in the previous section. These are based on best practices that have been used successfully on Martha's Vineyard and in other locations. Since each case is different, not all of the suggestions will apply to each situation.

#### 1) Site Layout

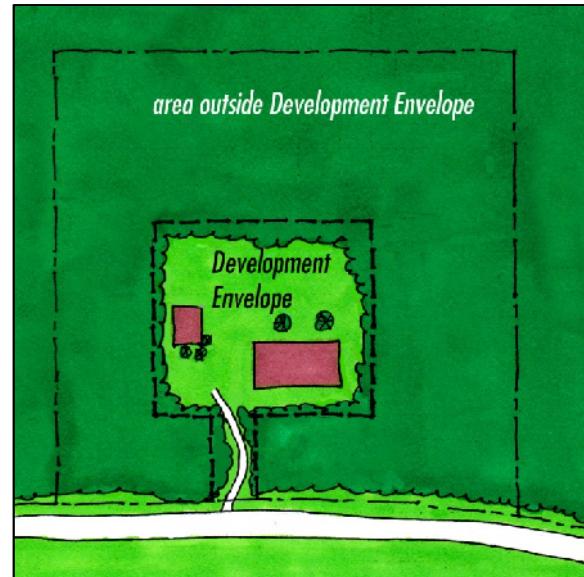
The location of roads, structures, areas of activity, and areas to be preserved as open space of a development project have the most fundamental impact on the character and environment of the property as well as of the surrounding properties and areas. (Note that the first three sub-sections below apply primarily to subdivisions or development on larger properties and/or in rural areas.)

- 1A Development Envelopes: For subdivision or development of properties in rural areas as well as on in-town parcels larger than one acre, delineate Development Envelopes to define the area where development will take place and where open space will be preserved or created.

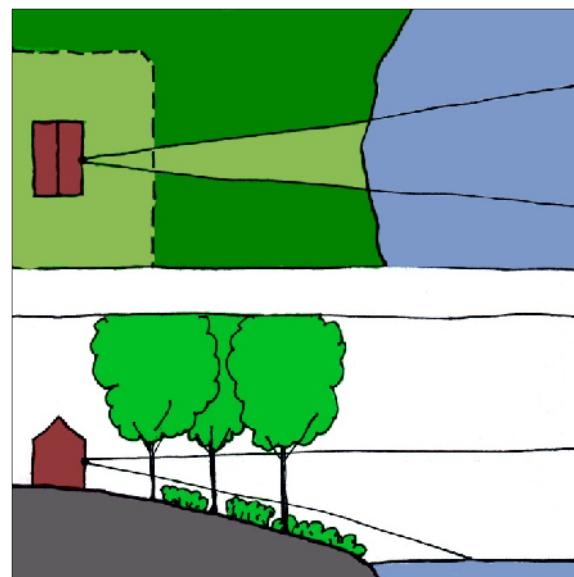
With subdivisions, defining Development Envelopes on the site plan allows for maximum flexibility for owners on part of a property while ensuring appropriate open space and habitat protection on other parts of the property. Development Envelopes can also be used in relation to the construction of individual buildings on rural and larger lots, to identify which parts of the property are to be kept as protected open space.

##### Guidelines

- The Development Envelope includes the area where all buildings, pools, other structures, roads, parking, and other elements will be built as well as the area(s) in which the natural landscape may be disturbed, including lawn and garden areas.
  - The maximum size of the Development Envelope and a description of how it should be delineated are specified in the MVC's Open Space Policy. The allowed size and location of the Development Envelope is based on the environmental significance of the property and the most significant open space features on the property.
  - A Development Envelope can be defined in conjunction with a building project, and is especially important for subdivisions where the specific building locations have not yet been determined.
  - Generally, the Development Envelope should be delineated so areas of intact habitat are located along property lines where they will join with similar areas on adjacent properties to create continuous habitat areas. However, if an adjacent property has development up to the property line, it might be preferable to place the Development Envelope on the subject property next to that development and maximize the area of unfragmented habitat.



- The Development Envelope should be delineated to protect habitat and fields as described in sections 3.1.2 and 3.1.3, and to respect the minimum depths of vegetative buffers described in section 3.4.2.
- In some cases, the Commission may require that a Building Envelope be delineated within the Development Envelope to describe where buildings may be built.
- The area outside the Development Envelope should generally remain as untouched natural habitat and be maintained as a no-cut/no-build zone other than minimal maintenance including removal of invasive species, the reconstruction of existing traditional walls and structures, and the possible creation of a view channel.
  - The exception is for agricultural uses, traditional fields, and open vistas, which should be specifically defined in the approved site plan.
  - View channels may be considered extending from the Development Envelope through the no-cut zone to open water or other significant vistas in order to allow views from buildings to the vista, while limiting the visibility of development from ponds or other public spaces. One view channel is preferred per property with an angle of open view no greater than 15° at the main structure or the view location (though this angle might be reduced if the building is set so far back that it would result in an excessive cutting). Within the view channel, all trees with a caliper greater than 4" should be preserved, though limbs at the viewing height may be removed; the maximum amount of other natural vegetation compatible with preservation of the view should also be preserved, typically vegetation less than 5 feet high.



**Subdivision plans can provide for future view channels through preserved habitat.**

#### 1B. Habitat: Preserve and restore areas of habitat that contribute to biodiversity.

About 65% of the Island has been designated by the Commonwealth as Priority Habitat that is essential to the conservation of rare and endangered species of plants and animals. The Island Plan identifies Critical Habitat Areas – those areas that have the highest sensitivity – and also identifies which of the state-defined Priority Habitat contributes to the Minimum Viable Landscape of the Island’s five eco-regions. Martha’s Vineyard includes one of the last remaining areas of the globally rare Sandplains Grasslands, an ecosystem whose preservation and restoration is especially important. Biodiversity is threatened by inappropriate development and management practices such as habitat fragmentation, planting of maintenance-intensive landscapes, introduction of invasive and other inappropriate non-native species, and fire suppression.

#### Guidelines

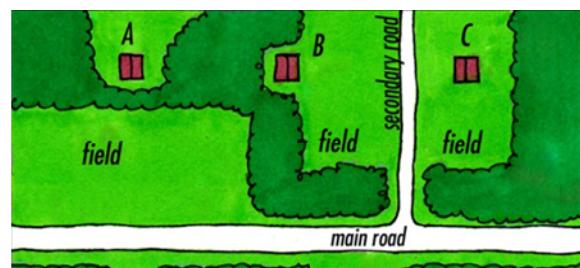
- DRIs should not adversely affect habitat of local populations of rare wildlife and plants . A wildlife and plant habitat management plan may be required as a condition of approval when development or redevelopment is permitted in critical wildlife and plant habitat areas.
- Organize the development of the property – including the layout of subdivisions, roads, buildings and other structures - in order to preserve and restore as much habitat as possible, and to minimize fragmentation, as described in the Open Space Preservation Policy as well as the Development Envelope section of this policy. Minimizing fragmentation of wildlife and plant habitat seeks to preserve large and continuous swaths of native vegetation. The MVC has started to work with town planning boards to prepare maps indicating what areas of properties in a given area should be preserved to provide for the best continuity and scale of habitat protection.
- Provide wildlife corridors in critical areas, such as along coastlines or between large areas of habitat that would otherwise be isolated from each other. Fencing should not be constructed so as to interfere with identified wildlife migration corridors.
- Preserve and choose vegetative species to protect and reinforce the contribution of habitat areas to biodiversity, as described in the Plant Species Selection (3.4.3) section of this policy.
- Development proposals within state-defined Priority Habitat that trigger the state's thresholds must submit the proposal to the Massachusetts Natural Heritage Program for review and comment.

### 1C Fields: Preserve existing fields.

After millennia of being densely vegetated, Martha’s Vineyard was almost all open agricultural fields by the 19<sup>th</sup> century. Woods have regrown over most of the rural parts of the Island and open fields have become a rare and valuable resource, both for farming and for their scenic value, preserving the Island’s historic agricultural pattern. The term “fields” includes areas that are actively farmed, farmland that has gone fallow, and other open areas offering scenic vistas.

#### Guidelines

- The site design, including the location of Development Envelopes, should leave fields as intact as possible, preserving existing agricultural uses and preserving the possibility of future agricultural uses.
- New buildings, other structures, and roads – other than those directly related to agricultural activities – should generally not be located within fields. For fields immediately adjacent to the main rural roads (see Island Plan: Roadside Viewsheds), new development should be set back so that a vegetative buffer is maintained along the perimeter of the field. In other areas, development could be located along the edges of the field.
- The priority is preserving and putting land in food production. To that end, topsoil, especially soil defined by the Dukes County Soil Survey to be Primary Agricultural Soils, should be preserved.



New buildings should generally be set back and buffered from fields facing main roads (A). For fields facing secondary roads, they should generally be located on the edge so the integrity of the field is maintained (B), not placed within the field itself (C).

Preservation of other fields is also important since lesser soils can be improved to be highly productive. The “temporary” removal of soils from a property for off-site storage during construction can be problematic with respect to the capability of ensuring that the correct soil – with all the microorganisms related adapted to that particular property - is returned to the site, where it can continue to be most ecologically productive.

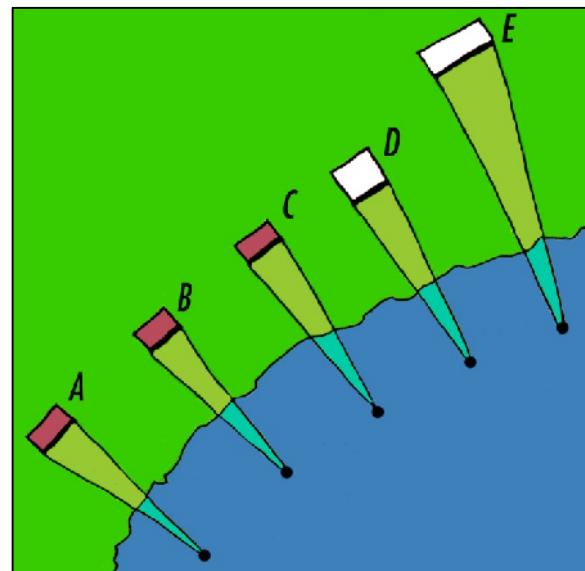
- Fields to be preserved should be clearly shown on the project’s landscape plan along with a maintenance plan to keep them as open spaces, such as mowing fields that are not actively farmed at least once a year, in the spring or fall to minimize conflicts with wildlife.

**1D Location of Buildings and Other Facilities:** Buildings, or building locations in subdivisions, should be sized, set back, and oriented in a way that respects the character of their surroundings and mitigates any visual impact.

Each town center on Martha’s Vineyard has a distinct pattern of settlement; all these in-town patterns are quite different from suburban and rural areas. New development should be designed to reinforce the specific distinct patterns of development of the area in which it is located.

**Guidelines**

- In town, buildings should generally be aligned with other buildings on the streetscape. This is especially important in historic areas and along roads where there is considerable homogeneity in setbacks. In rural areas, new buildings and other structures should generally be located to minimize their visibility from the public way (roads, public open spaces, water bodies).
- The apparent visibility of proposed buildings and structures as seen from a public way should not be significantly greater than the average apparent visibility in the surrounding area, measured as the angle of visibility from the public way. Larger buildings may reduce their angle of visibility through orientation – at right angles rather than parallel to roads or the shoreline – and larger setbacks.
- In hilly areas, buildings should be located within the slope, not where they would break the ridgeline or at the bottom of a valley.
- To reduce the visual impact of large buildings:
  - Buildings that are large relative to surrounding structures should orient the narrow facade of to the street to be consistent with existing facade widths.
  - Buildings with long facades visible from a public way or abutting property should incorporate a change in the wall plane with setbacks, projections, and variations in wall height and roof form within the range provided by existing nearby buildings.

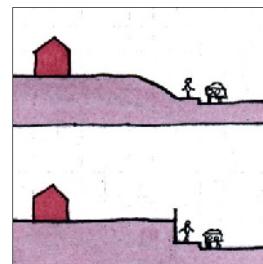


The existing average angle of visibility of existing buildings (A, B, and C) as measured the same distance from a public way – in this illustration a water body - sets the standard for the area. A new building can be bigger if the façade facing the public way is of a similar width (D), or the new building can be wider if set farther back (E). Both options result in a similar angle of visibility as seen from the public way.

- Multi-structure developments should place structures with more modest forms at the street edge to shield the larger building behind.
- Where site topography is suitable, structures may be partially built into a slope or hillside.
- Service areas – such as loading, compressors, generators, trash and recycling receptacles, and other utility equipment – should be sited outside primary visual corridors or shielded from view by separate structures, projecting building wings, topography, landscaping, or fencing. Mail boxes should not be located on sidewalks or paths, especially if this renders the path non-compliant with handicap accessibility.

**1E Topography:** Preserve the existing natural topography as much as possible.

The Vineyard is marked by its distinctive topography, from the rolling hills of the Moraine, largely Up-Island, to the relatively flat Outwash Plain marked with the valleys enclosing and extending the South Shore ponds. Leveling or excessively regarding the site, or inappropriate placement of roads and buildings can undermine the natural topography and alter natural drainage ways. Regrading in some locations not only creates an artificial visual effect, it also requires that soils be brought in from off-site, which is a leading cause of the introduction of invasive plants on Martha's Vineyard.



**Guidelines**

- The existing natural topography of a property should be retained whenever possible and regrading or excavation should be avoided or minimized.
- Avoid or minimize bringing in soils in from off-property.
- Retaining walls larger than 3' in height should be avoided along the public way. In areas where substantial grade change is necessary, terracing stepping back from the road may be considered.

Slope ground adjacent to a public way (above) rather than building a retaining wall (below).

**1F Historical and Archeological Resources:** Inventory and protect significant historical and archeological resources.

Several distinct cultural groups have settled here throughout the last ten thousand years, each leaving significant historic and archeological resources both above and beneath the ground on many parts of the Vineyard. Adequate investigation and care will ensure that these resources are protected.

**Guidelines**

- Locate and map all significant historic and archeological resources on the site. In areas where there is a high potential for archeological resources the MVC may require an archeological survey. The MVC staff may consult local boards, the Wampanoag Tribe and, where available, confidential studies, to help identify sites that may contain archeological resources.
- Locate and design buildings and the landscape to minimize the removal or disruptions of cultural uses, structures or architectural elements, including stone walls and steps.
- On sites identified as having archaeological resources, applicants should submit a response from the Massachusetts Historical Commission (MHC) regarding appropriate protection of those resources. A supervisor may be appointed to oversee the excavation. Special procedures apply

to sites determined to be part of a burial ground. Changes to building location and design may be required to minimize digging.

- 1G Wetlands, Shorelines, Climate Change and Hazard Mitigation: Locate and design structures to protect wetlands and to minimize the risk of damage from storms, flooding, shoreline erosion, and other natural disasters.

As a coastal community jutting into the Atlantic Ocean, the Vineyard is vulnerable to flooding, erosion, and other damage from storms. The impacts along the coast are getting worse because of sea level rise. In the past century, world-wide sea level has risen about 6 inches, and this is projected to accelerate to two to three feet in the next century. In addition, the fact that the Island is gradually sinking (subsidence) adds an additional 4 to 5 inches per century relative to world-wide sea level change. In addition to increased erosion, storm damage from hurricanes, tropical storms, and nor'easters is expected to reach more inland sites and climate change is also expected to bring an increase in intense rain storms, particularly in winter.

The Massachusetts Wetland Protection Act prohibits any alteration to wetlands without the approval of the local Conservation Commission. The protected area includes marshes, vernal pools, meadows, dunes, and banks bordering on the ocean, any estuary, creek, or pond, or any land subject to tidal action or flooding. The protected area includes a buffer of 100 feet, and towns may increase the depth of this buffer through a local wetlands by-law. Since wetlands are vulnerable to submergence as sea level rises, development should be sited to maximize potential for wetlands to migrate landward as sea level rises; salt marshes are of particular concern, both for vulnerability and for value of their fisheries and nutrient cycling function. In addition to the coastal hazards described above, another serious hazard of particular concern on the Vineyard is the risk of forest fire. This too is expected to be exacerbated by climate change.

Coastal banks often provide the sediment source for beaches, and the Commonwealth prohibits the revetment of banks unless essential to protect structures in existence prior to August 10, 1978. The location of most of the shoreline around Martha's Vineyard is constantly eroding because of the relative subsidence (sinking) of the land. Land is lost to sea level rise, and the land has been losing since the retreat of the glaciers. Recent acceleration of sea level rise has produced even more rapid erosion. This erosion impacts buildings, infrastructure, and the location of wetlands.

In addition to the coastal hazards described above, another serious hazard of particular concern on the Vineyard is the risk of forest fire. This too is expected to be exacerbated by climate change and its accompanying extended periods of drought.

#### Guidelines

- Map all wetlands near the proposed development.
- Seek a determination from the town Conservation Commission as to whether the project is subject to the Wetlands Protection Act and, if so, whether the project meets the Conservation Commission requirements.
- Avoid revetment of banks unless absolutely essential to preserve an existing structure erected prior to August 10, 1978.
- Buildings and other structures should be located outside the areas now, or projected to be, at risk from coastal flooding, storm surges, and coastal erosion.

- In areas where the coastline is eroding, development should be located to accommodate fifty years of erosion, using the greater of the short-term and long term erosion rates. (Refer to the Shoreline Change Map.) Development within these areas, if allowed at all, should be accompanied by a deed rider precluding future armorment of the shore fronting the development.
- Development along the inland edges of wetlands should be located to allow for future migration of these wetlands. Of particular concern are the priority salt marshes identified in BioMap2 Coastal Adaptation Analysis (available on the Natural Heritage and Endangered Species Program website and MVC GIS.) BioMap2 includes a coastal adaption buffer for wetlands that should be avoided, particularly for saltmarshes.
- Developments in areas highly susceptible to risk from forest fire – especially within the Wildland-Urban Interface (see definition and map) – should create a defensible space around buildings. In the defensible space, within fifteen to thirty feet of buildings, plants should be more widely spaced and lower growing than those farther away. In and around this area, reduce the fuel load, maintain fuel breaks such as driveways and lawns, and plant trees in clusters leaving breaks between canopies. Using a mix of native deciduous and coniferous native trees helps make wooded areas more disease resistant and maintain a higher moisture level, which makes them more fire resistant. (It is also important in these areas to make building choices that reduce risk, such as asphalt roof shingles instead of cedar.)

**1H Public and Recreational Access:** Provide for critical links in the Island's networks of Shared Use Paths and trails, including continuous waterfront access in the centers of the down-Island towns.

The Island has extensive networks of Shared Use Paths (SUPs, accommodating bicycles and other non-motorized modes) and trails. However, these networks have many gaps, some of which can only be filled with linkages across private property. Development of these properties provides an opportunity to complete these missing links (Refer to the Island Plan Recreational Network and the MVC's SUP Network map). Unlike most states, Massachusetts does not provide for automatic waterfront access. However, like many planning agencies, the MVC will seek to achieve continuous public waterfront access as development or redevelopment takes place, especially in central waterfronts, the densest population centers of down-Island towns.

**Guidelines**

- The Commission would consider it a public benefit that SUP or trail easements be provided across properties where these are needed to complete important parts of the SUP or trail networks. If the network on adjacent properties has not been completed, the applicant should provide a dormant easement allowing for the connection across the subject property to be opened when those on the adjacent properties are in place.
- The Commission would consider it a public benefit that development in the central waterfronts of down-Island towns (the primarily commercial area located between areas of single-family homes) incorporate public access along the water. In other areas, public access along the water is also desirable. Projects in locations subject to Chapter 91, the Massachusetts Public Waterfront Act, such as filled tidelands, must be referred to the Massachusetts DEP Waterways Regulation Program which will ensure compliance with this Act.

## 2) Roads, Driveways, and Parking

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The location and design of roads and parking structures are major organizing elements in the layout of a property, and have a large impact on the visibility of development from the public way.

### 2A Roads and Driveways: Design new roads and driveways to minimize their impact and be consistent with the character of the surrounding area.

Although Vineyarders depend heavily on cars and trucks, it is not necessary that the infrastructure supporting motorized vehicles dominate the environment, as they easily can if not carefully planned. In rural areas, roads can be designed to minimize the visibility of development and parking can generally be tucked out of sight. This might be more difficult in town areas, but the measures outlined below can help reduce their impact.

When it comes to road and parking design, consistency with the surrounding area does not apply to those limited areas on the Vineyard with a problematic 1970's style of suburban development, notably the Business and Opportunity Zones identified in the Island Plan.

#### Guidelines

- Projects facing major or scenic roads, both in town and rural areas, should share curb cuts and driveways with adjacent developments (Refer to Scenic Roads Map of the Island Plan). In town, link rear parking lots so cars don't have to re-enter the main road to go from one lot to the next. Provide for future sharing or parking linkages with dormant easements to be used when the adjacent property is developed.
- Curb cuts, subdivision and private roads, and driveways should not exceed the minimum width necessary for safety and should remain unpaved wherever possible. Access roads should be a single lane wide (about 10 feet), unless two lanes are necessary given projected traffic flow to multiple properties or large parking lots, in which case the width should still be minimized (about 15 feet).
- In hilly areas, roads should follow rather than cut across contour lines to fit into the natural topography.
- In rural areas, driveways should be designed at an angle or with a curve to avoid direct views into the property and to fit the landscape (see illustration in section 3.4.1). Subdivision roads should respect the character of traditional rural roads; they should have a traditional winding layout, be as narrow as is consistent with public safety and avoid urban-style paving and curbs.
- In general, individual driveways should not be paved to maximize rainwater infiltration and to minimize problems related to stormwater runoff.

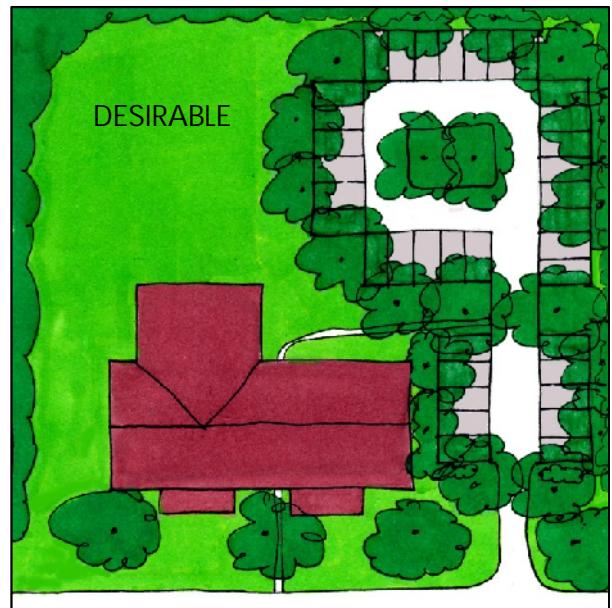
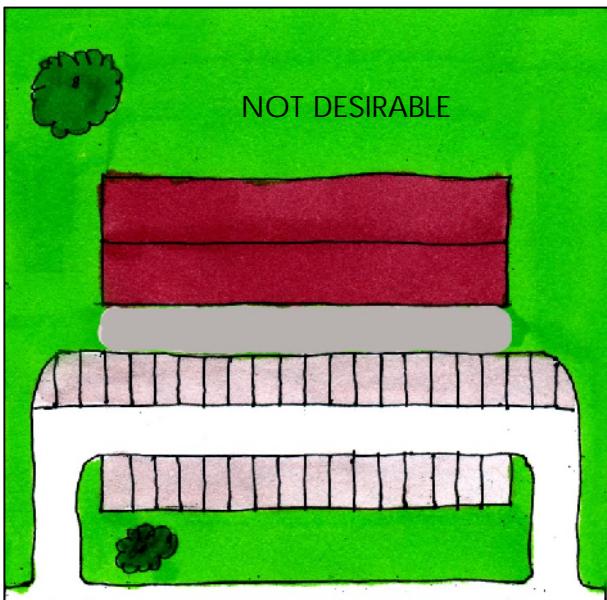
### 2B Parking: Minimize the visual impact of parking lots and provide adequate shade.

Parking can be located and designed to be functional while minimizing its visibility. The number of required on-site parking spaces may be reduced when on-street parking is available or when there is an opportunity to share parking lots with abutters (e.g. churches, offices, restaurants, and other uses that operate at different times).

#### Guidelines

- In town areas or where buildings are clearly visible from the road, parking for more than three vehicles should be located behind or beside the building. If it is impossible to locate the parking behind or beside the building, it should be located to minimize its visibility from the public way

and should be screened with vegetation, low fencing or a vegetated berm. In hilly areas consider taking advantage of existing berms.



Parking should be to the rear and side of a building, screened from the road, with trees to provide shade, and with buffers along property lines, as in the example to the right.

- It is preferable to divide a large lot into several smaller parking areas and to break parking lots up with rows or islands of trees within the parking area.
- At least one new tree should be planted within the parking area for every eight parking spaces, selected and located so that, after 20 years of growth, they will provide a high shade-producing canopy that covers 75% of the lot, cooling the lot and mitigating the impact of the asphalt.

### 3) Grading, Drainage, and Stormwater Management

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Conventional stormwater runoff management may increase inland flooding and degrade streams, fish habitat, shellfish beds and water quality in coastal ponds. Low Impact Development (LID) is an approach to site development and stormwater management that aims to minimize a development's environmental impacts, especially with respect to water resources. The aim is to have the property continue to function hydrologically like wooded, undeveloped land. LID practices are not only better for the environment; they also reduce costs to developers, property owners, and municipalities. Stormwater management will be increasingly important in site planning, due to the expected increase in intense rain storms as a result of climate change.

**3A Stormwater Management:** Design each project to protect or restore the natural hydrology of the site so that the overall integrity of the watershed is protected. Sites should be designed to maintain water on the property and allow as much water to infiltrate as possible.

Design site drainage in conjunction with planting to improve containment of stormwater, minimize the long term need for irrigation, and minimize development impacts with measures such as the following.

#### Guidelines

- Avoid draining onto adjacent properties or concentrating water near the property line.
- Minimize the area of a property to be graded or used for roads, parking and other impervious surfaces. This will help to preserve traditional character, reduce heat build-up, maximize groundwater recharge and minimize problems from storm water runoff. Strive to balance cut and fill and maintain existing grades around trees to be preserved extending at least four feet away from trunks to preserve healthy soil and vegetation.
- Maintain site runoff rate and minimize runoff velocities by using existing flow paths and maximizing the length of proposed flow paths and sheet flows. Avoiding development on slopes greater than 15% and properly vegetate all slopes. Provide appropriate vegetative buffers along the edges of buildings and impervious surfaces. This will prevent erosion, filter pollutants, and increase infiltration.
- Use open drainage instead of storm pipes, curbs and gutters, wherever practical. In general, strive for small-scale storm water controls distributed throughout the site.
- Some projects may be subject to national, state wide, or other local regulations:
- Projects that include industrial or municipal facilities or projects where construction will disturb more than one acre require a National Pollution Discharge Elimination System (NPDES) permit.
- Projects that include land under water/ocean, or within a 100 year Flood Zones (FEMA A, V & D zones), or land that border vegetated wetlands, banks, 100' buffer zones, coastal resource, or riverfront areas require a permit under the Massachusetts Wetland Protection Act (WPA), administered by the Town Conservation Commission.
- Local municipalities may have additional requirements that go beyond the WPA. Check in their zoning for bylaws regarding stormwater and floodways.

#### **4) Vegetation**

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Replacement of native Vineyard vegetation with large, high-maintenance lawns or decorative planting with species that are not appropriate for the site reduces habitat, increases the need for fertilizers and pesticides that pollute our water supply, and erodes the Vineyard's character. About two thirds of the Island has been designated by the Commonwealth as Priority Habitat for rare and endangered species of plants and animals and it is especially important to preserve and restore this habitat for future generations by limiting removal and fragmentation of this habitat and by choosing appropriate species for new planting. In other areas, the careful selection of appropriate species can reinforce neighborhood character and achieve many of the other objectives of this policy.

##### **4A Removal of Existing Vegetation:** Preserve existing trees and other vegetation as much as feasible, rather than clear-cutting and re-landscaping a site.

Although clear-cutting may sometimes simplify construction, it undermines the natural character and environmental quality of Martha's Vineyard, both in rural and town areas. The loss of healthy mature trees, particularly close to the road, cannot always be adequately mitigated by the planting of young trees. The Commission will assist in developing plans which take advantage of existing vegetation.

##### **Guidelines**

- In general, it is preferable to preserve existing vegetation, especially if it is mature.
- Removal of existing mature vegetation may lead to the need for additional measures to provide

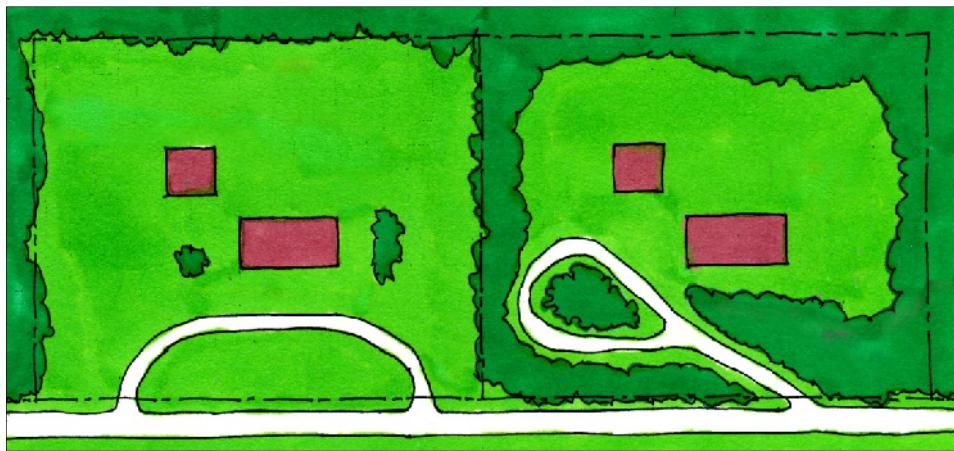
the equivalent or greater amount of vegetation and buffering. For example, it may be necessary to plant new vegetation to replace the cumulative caliper of the former trees (e.g. replacing two 10" caliper trees with five 4" caliper trees, both with a cumulative caliper of 20"), or it may be needed to provide greater setbacks to achieve the buffering that would have been offered by existing or recently removed vegetation

- Cutting existing vegetation before the MVC has reviewed and approved the landscape plan may result in the need for additional measures to provide adequate buffering and vegetation.

- 4B **Vegetative Buffers:** Use vegetative buffers to screen, or at least mitigate, the view of new development from public roads, protected open spaces, and from the ocean and ponds.

This is especially important in rural areas but may also be appropriate in town areas as well.

Vegetative buffers serve important nutrient cycling functions and help to manage erosion and sedimentation in the vicinity of wetlands and farms. They also maintain the traditional character of Martha's Vineyard and enhance property values by minimizing the visual impact of adjacent development.

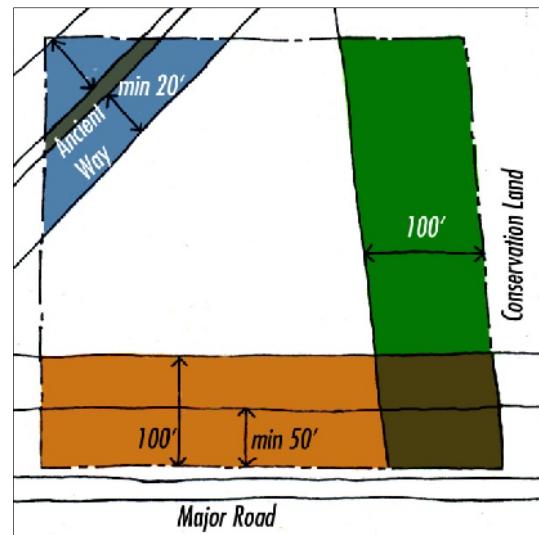


The lack of vegetation in front of a building (left) means that the development is highly visible from the road, and the occupants of the building have little privacy from passing traffic. In rural areas, vegetative screening along the road (right) maintains the natural character and screens building occupants from road traffic. Vegetation along the property line limits the impact of development on abutters.

#### Guidelines

- Along rural roadways, provide vegetated buffers for new development in order to maintain rural character as viewed from main roads, from the ocean, from other public water bodies, and from public spaces.
- Vegetative buffers should generally not be along the roadsides next to fields or meadows other public open vistas, or important public buildings where they would block these significant public views.
- Vegetative buffers should normally be no-cut zones, other than minimal maintenance including the removal of invasive species. The buffer may be reinforced with appropriate additional vegetation to shield construction, especially when the recommended depth of buffer cannot be achieved. New buffers and plantings to augment existing buffers should include evergreen as well as deciduous trees and shrubs in order to maintain some screening during the winter.
- The following are recommended minimum depths of vegetated buffers.

- Wooded areas along public rural roads or facing public spaces, as well as wooded areas along the side and back enclosures of roadside fields facing scenic roads: preferably 100 feet with a minimum of 50 feet.
- Scrub or heath land along public rural roads or facing public spaces, or roadside fields facing scenic roads: a minimum of 100'.
- Along the sides of ancient and special ways: minimum of 20'.
- Adjacent to public open spaces (other than in-town parks), protected conservation land, and wetlands: minimum of 100'.
- Adjacent to farms: minimum of 50'. Adjacent to livestock operations: minimum of 100'.
- Within the property where a commercial district or non-residential development is adjacent to or within residential districts or development: minimum of 25'.
- Buildings and other proposed features may have to be relocated and/or reduced in size to provide the buffer.
- In some cases of redevelopment of small lots, the Commission could consider a smaller buffer, generally with additional vegetative screening and/or fencing. Buffers may also be reduced where the topography already screens a proposed building or other development from public view.
- Vegetative buffers in rural areas should contain shade trees reinforced by appropriate native evergreen trees and shrubs to avoid clear lines of sight to the development. Vegetative buffers in all areas should include shade trees along the road, as well as shade trees, evergreens, and shrubs within property lines to avoid clear lines of sight to adjacent lots beside and behind the development.



**4C Plant Species Selection:** Select appropriate plant species to support habitat, contribute to the visual character of the areas, and ensure the success of a planting without the use of long-term irrigation, fertilizers, and pesticides.

The selection of plant materials should be based on criteria that reinforce the distinct character and environment of Martha's Vineyard. This policy refers to five categories of plant species: Native, Island-Appropriate, Historic, Not Recommended, and Invasives.

#### Guidelines

- **Native:** These are indigenous species whose presence on Martha's Vineyard is the result of natural processes, with no human intervention, and that are appropriate to the conditions of the Island. In general, natives require less maintenance and provide more services to wildlife, so they make an excellent choice for any planting design. In Critical Habitat Areas, only native species should be used. In other habitat areas, native species are preferred. Natives are also a good choice anywhere on the Island. For special landscape restoration projects, owners might consider using Vineyard-genome plants, though availability is limited. Using Vineyard-genome plants is especially appropriate for herbaceous plants, such as butterfly weed and switchgrass,

since our species are different from those originating off-Island. Property owners can contract to have seed harvested and/or grown to supply native plants.

- Island Appropriate: These species are not native to the region but have been observed on the Island long enough to demonstrate that they perform well here, are relatively pest and disease resistant, support the fauna found on the Island, and are not likely to become invasive. Island-Appropriate species are acceptable in non-critical habitat areas, and are acceptable in other locations without sensitive habitat as well.
- Historic: These species have been used as street trees or for other distinct purposes on specific streets or in specific areas on the Island. Continued use in these areas is acceptable.
- Not Recommended: These are non-native species that are problematic for use on the Island, generally because they do not survive well in Vineyard conditions without the intensive watering and/or the use of pesticides or fertilizers. The most important example is turf grass. There are generally alternative plants with similar characteristics but without the negative impacts. Although these plants are not recommended, they may be used for decorative or other purposes within Development Envelopes and in areas without sensitive habitats.
- Invasive: These species are known or are likely to cause environmental or economic harm. This includes all plants listed on the State Banned Species list and may include others perceived to be a threat on the Island. These are not permitted for use anywhere on Martha's Vineyard.

A sister document to this policy is the "Lists of Native, Island-Appropriate, Historic, Not Recommended, and Invasive Species for Martha's Vineyard", prepared in conjunction with the Polly Hill Arboretum. The lists include information that allow project designers to select plants based on criteria such as type, size, sun and water requirements, and typical landscape use such as street tree or wildlife supporter.

The list is now available as a printed document or a pdf on the MVC website. It will soon be available as an interactive database that will allow project designers to cater the list to their needs by searching for specific criteria. The most up to date version will be available online from Polly Hill Arboretum: [www.pollyhillarboretum.org/plantdatabase](http://www.pollyhillarboretum.org/plantdatabase).

Plant materials should be selected from the list of Native and/or Island-Appropriate plants. The planting of non-native Invasive species is strictly prohibited. The following table provides guidelines for selection of plant species in various areas on the Island. Refer to the Critical and Priority Habitat map to determine the status of your site

	Critical Habitat and Priority Sandplain Habitat	Priority Habitat	Other Areas and within Development Envelopes
Native	Necessary	Preferred	Preferred
Island Appropriate	Not Permitted	Acceptable	Acceptable
Historic	Not Permitted	Not Permitted unless used historically in that area	Acceptable
Not Recommended	Not Permitted	Not Permitted	Acceptable
Invasive	Not Permitted	Not Permitted	Not Permitted

- Where planting of new stock is required, consider the specific characteristics of the site, the

habitat value of the property, and the character of the area in which the development is proposed. All plants should be selected based on the conditions of the site to ensure their success without the need for long-term irrigation, fertilizer, or pesticides after they are established.

- It is best to avoid excessive use of a single plant species as monocultures are more vulnerable to disease. It is preferable to limit use of any non-native species to about 15%.
- Along streets and roads, select canopy trees to complete the tree-lined characteristic of the road. Species should be chosen that either naturally branch far above the ground or can be pruned to do so, so branches don't interfere with passing buses or trucks. The required clearance over the paved portion of a state highway is 18 feet.
- New trees should generally have a caliper between 2½" and 4". Larger trees do not transplant well and have poorer long-term survival and growth rates.
- Within a Development Envelope: While owners generally may plant as they wish, the following practices are desirable.
  - Significant native trees (caliper 4" inches or more) should be preserved as much as possible.
  - Lawns of non-native grasses requiring intensive fertilization for maintenance should be defined in the development plan and kept to a minimum.
- There should be no construction or site alteration in the Protected Root Zone of major trees –the minimum area beneath the tree that should be left undisturbed in order to preserve a sufficient root mass needed for the tree's survival. The Protected Root Zone is a circle around the tree with a radius of 18 times the tree caliper, or 12 times for species with a vertical root structure. Where construction impacts more than 30 percent of this zone, the tree is considered damaged beyond probable recovery. Prohibited activities within the Protected Root Zone include: construction, grade changes; parking; roads; paving; soil compaction including driving of equipment; spillage of chemicals, fuel, or other toxins, and storage of materials.

### Vineyard Plant Species

Property owners should refer to the "Lists of Martha's Vineyard Plant Species" prepared by the Polly Hill Arboretum to help choose appropriate plant species. Some varieties of trees and shrubs supplied in local garden centers may not be appropriate for planting in natural habitat areas, though they may be appropriate within built-up town areas, close to buildings, or within defined Development Envelopes.

**Habitat Areas:** The natural areas of the Island are made up of various vegetative communities, each of which has its own set of plant species, though there is considerable overlap of species from one area to the next. Some of the communities identified by the Nature Conservancy include: Woodland areas dominated by Oak, Scrub Oak, and Pitch Pine; Coastal Salt Ponds; and Shoreline.

**Shade and Street Trees:** In-town areas are difficult places for trees, where they must endure constant air and water pollution, salt spray in the winter, heavy pruning of their branches, and generally very tight compacted spaces for their roots. These are very different conditions than native plants are accustomed to and therefore native trees may not be successful. Some non-native species that have been used historically, have proven to do well in these harsh conditions, and may be appropriate for new plantings in certain in-town locations include Linden, Sycamore, and disease-resistant Elm.

## 5) Fencing and Stone Walls

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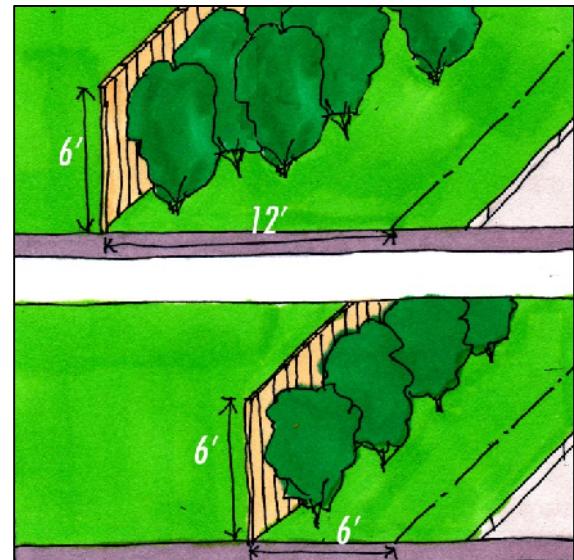
Fences and stone walls can be installed to provide security and privacy, to demarcate property lines, and as an aesthetic statement while limiting their negative impact on the character of nearby roadscapes.

- 5A Fences: Fences facing the public way if needed, , should be open and low to reduce their visual impact. Higher, opaque fences should be set back far enough to allow for adequate roadside vegetation.

A well-designed and located fence can enhance security and privacy while maintaining scenic character.

### Guidelines

- Fences should be avoided in open, natural areas, such as the coastal heathland of Aquinnah.
- Fences facing the public way should be open – such as split rail fences in rural areas and picket fences in town – and should be no higher than 3'-6".
- Stockade fencing or other privacy fencing facing the public way should be set back from the property line at least one foot for each foot of height in town areas and two feet for each foot of height in rural areas, and should be provided with vegetative screening between the fence and the public way that mitigates the fence's visual impact.
- Where security is essential, black security mesh could be affixed to the private side of open fencing under 3'-6" high (e.g. for children or pets). Taller black security fencing should be set back according to the above ratios for stockade or privacy fencing, and be camouflaged with plantings.



Stockade or other opaque fences should be set back from the front property line a distance at least equal to the fence's height in town areas (lower drawing), or double that height in rural areas (upper drawing).

- 5B Stone Walls: Preserve existing stone walls and ensure that new stone walls are built in the traditional Vineyard style.

The rural areas of Martha's Vineyard, especially Up-Island, are marked by the presence of stone walls, originally built as farmers cleared their fields to allow for farming.

### Guidelines

- Preserve existing traditional stone walls. It is also desirable to remove vegetation that would hide those walls along scenic roads.
- New stone walls should be designed in the traditional style, generally with uncut field stone.

## 6) Exterior Lighting

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Exterior lighting is often needed for the safety and convenience of those using a property. Maintaining lower lighting levels contributes to the distinctive character of Martha's Vineyard; our

starry dark sky is in striking contrast to the limited visibility of sky from highly lit areas off-island. Low lighting levels and the absence of glare also reduce the impact of new projects on abutters, and help conserve energy.

- 6A Lighting Types: Exterior lighting should be kept to a minimum in terms of number of fixtures, wattage, height, and visibility, and lights should be kept on the minimum amount of time compatible with providing needed safety and convenience of users.

Usually, a minimum of exterior lighting can fulfill needs and a careful selection of lighting fixtures can substantially mitigate the negative impacts of lighting. Lighting is often left on for excessive periods of time through inadvertence or through a misguided feeling that it would somehow be safer, though having lights on motion detectors is generally safer as it alerts other people when someone is present.

#### Guidelines

- All exterior lighting should be directed downward, and shielded to prevent up-lighting and light spillage beyond the property line onto roads or adjacent properties.
- The washing of building facades with illumination should be avoided.
- There should be no exterior lighting outside Development Envelopes defined in residential subdivisions.
- All lights should be turned off overnight, with the exception of lights required by the building code and low-wattage porch lights.
- Lighting should generally be limited to the following types:
  - i. Lighting required by the building code that has the minimum number and intensity of fixtures to meet the requirements of the code, and is on motion detectors if permitted by the town.
  - ii. Safety lighting, such as along paths and in parking lots. These lights should be as low wattage as possible, and should be turned off when there is no activity in the building, such as when businesses and institutions are closed and no staff is present.
  - iii. Security lighting, to deter theft and vandalism when the building is not occupied, which is on motion detectors.
  - iv. Lights shining down onto signs in commercial areas that are turned off when the business or institution is not occupied.
  - v. Area lighting for outdoor recreational purposes that is turned off when not in use.
- In residential areas, lights should be installed on buildings at a height of less than 10' if possible or be bollard-type lighting no more than 3 feet high. In commercial areas, there may also be lights installed on lighting standards which should be no higher than 10' if possible.
- Street lighting in new subdivisions or developments should be avoided, except for the possible use of bollard or other minimal lighting in specific areas which pose a particular safety problem (e.g. crosswalks).
- Extra measures to limit lighting may be necessary for development adjacent to habitat for rare moths or other species that may be attracted to the light.

## 7) Construction and Maintenance

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The following requirements should form the basis of applicant commitments in their project application. They could be in the form of applicant Offers and/or notes on the landscape plan and written specifications.

### 7A Construction: Protect the landscape during construction.

Inadequate protection of the landscape during construction can result in the loss of large trees and intact areas of natural vegetation that are difficult if not impossible to replicate after construction is over. So every effort should be made to protect these features during construction.

#### Guidelines

- Existing trees, vegetative buffers, areas outside Development Envelopes, and other vegetation in the approved plans should not be removed during or after construction. Understory vegetation under the drip line of preserved trees should be retained in an undisturbed state unless specifically exempted. The MVC may require a plan showing how vegetation to be preserved will be protected during construction. If an area must be temporarily cleared for construction purposes, it must be clearly indicated on the landscape plan erosion control and restoration measures must be approved by the MVC.
- During clearing and/or construction activities, all vegetation to be retained should be surrounded by temporary protective fencing and/or other measures before any clearing or grading occurs, and maintained until all construction work is completed and the site is cleaned up.
- Protective barriers should be large enough to encompass the Protected Root Zone of all vegetation to be protected. All vegetation within the protective fencing should be retained in an undisturbed state.
- Native or other appropriate vegetation should be planted in previously disturbed areas as needed to enhance or restore wildlife habitat.

### 7B Ensure Adequate Maintenance of Landscaping: The approved plantings must be maintained for the life of the project.

It is important not only to protect existing vegetation and plant appropriate new vegetation, it is also important to ensure that this vegetation survives indefinitely into the future.

#### Guidelines

- Avoid plant failure by careful choice of species, ample planting space, proper planting and intensive care until they are well established.
- Trees and other vegetation shown on the plan should be preserved in perpetuity. If trees within buffers or specifically indicated in the landscape plan die, they should be replaced with the same species, unless this is a disease-prone or otherwise inappropriate species in which case a substitute may be used if approved by the MVC Land Use Planning Committee.
- An irrigation system may be necessary in large projects. Smaller projects without irrigation systems should have a maintenance plan, including provisions for watering during establishment and drought.
- Temporary irrigation needed to ensure the successful establishment of plantings should be drip

irrigation or another system that reduces loss by evaporation.

- Accidental removal of vegetation shown on the plan as "preserved" will generally result in significant expense to mitigate the loss.
  - Any change in the landscaping must return to the Commission for review and approval before any work is carried out, with the exception of replacing dead vegetation with the same species or additions that respect this policy above and beyond the requirements of the approved plan.
  - In order to protect the ground water and surface waters, there should be a commitment from the owner, or establishment of homeowners' covenants, to avoid use of herbicides, pesticides, and fungicides as well as to limit the use of fertilizers.
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## 4. APPLICATION OF THE POLICY AND SUBMITTAL REQUIREMENTS

### Site Survey and Analysis

A site survey and analysis should be prepared so that the layout and landscaping of the site can be based on an understanding of the existing situation based on an understanding of the site. The survey should show conditions on the site and the analysis should indicate the significance of the conditions on the site development.

The site survey of the current conditions on the site should include the information listed below. For simpler projects, some detail may be omitted with the approval of the Land Use Planning Committee at the pre-hearing meeting on the project. The MVC staff can help applicants find much of the needed information, though some site survey work may be needed for the specific details of the property.

- Adjacent uses: Existing uses of all abutting properties including open spaces (public or private, protected or not), trails and buildings.
- Topography: Existing contour lines at intervals of no more than 2 feet, prepared by a registered civil engineer or land surveyor, including the highest and lowest points on the property.
- Water Resources: Delineation of all bodies of water, including wetlands, vernal pools, streams, ponds, and coastal waters within 200 feet of the project as well as a delineation of the 100-year floodplain and a representation of the limit of work with regard to these resources. Indication of drainage and areas of flooding on the property.
- Soils: Soil survey indicating predominant soil types on the project site including agricultural soils and information on erosion potential and percolation. If available information is not adequate in sensitive situations, the Commission may require a more detailed soils survey.
- Vegetation: Major vegetation located on the site, including the size and height of specimen trees and/or forest communities, shrub layer, ground cover, and herbaceous vegetation.
- Habitat: Location of any habitat for rare and endangered plant and animal species as mapped by the Massachusetts Natural Heritage and Endangered Species Program as well as other significant habitat as mapped in the Island Plan.
- Man-Made Features: Location of all existing structures including buildings, fences, walls, roads, parking areas, paths.
- Views and Vistas: Identification of Roadside Viewsheds and other significant public viewsheds across the property.
- Archeological Resources: The Commission may require an analysis of archeological resources.

### Landscape Plan

For any proposal involving construction, the application should include a landscape plan sufficient to allow the Commission to evaluate the proposal. In some cases, the Commission's approval may specify that a final landscape plan may be submitted for the review and subject to the approval of LUPC before

construction begins or before a certificate of occupancy is issued. For a subdivision plan, a landscape plan should be provided for roads and any other public areas.

The landscape plan should include the following information.

- Property and Context: Plan of the property showing:
  - All property lines,
  - Abutting properties showing buildings and abutters' names,
  - Setbacks required by zoning,
  - Legal restrictions such as designated Districts of Critical Planning Concern,
  - Habitat areas as defined in by the Massachusetts Natural Heritage and Endangered Species Program or in the Island Plan.
  - Wetlands and waterways on or within 100' of the property.
  - Minimum buffers specified in this policy.
- Development Envelope: Limits of the proposed Development Envelope as described in section 3.1.1. of this policy.
- Topography: Existing and proposed contour lines at intervals of no more than 2 feet, prepared by a registered civil engineer or land surveyor. Use dashed lines to indicate existing contours, and solid lines to indicate proposed.
- Roads, Parking, and Paths: Location and arrangement of all roads, parking, loading, outdoor storage areas, sidewalks, and paths. Information should include profiles and cross-sections of these facilities showing grades, widths, and surface materials (including whether they are porous or not).
- Buildings and Structures: Location, proposed use and dimensions of buildings and other structures, such as retaining walls, fences, docks, outdoor storage tanks, air-conditioning units, and waste disposal units. Also indicate the location of all water, sewage disposal, oil, electric, gas and solar energy facilities.
- Hardscaping: Location and treatment of the surface areas of driveways, parking spaces, sidewalks, walkways, patios, and amenity areas such as swimming pools, tennis courts, and play areas.
- Planting:
  - Planting Plan: Illustrate the location of proposed vegetation changes, including areas to re-establish or protect existing vegetation. For trees with a trunk diameter greater than 4". proposed to be preserved or removed, include the location, type, size, grade, and condition. (Use a dotted line to indicate trees proposed to be removed.) Show the location and specify the installation method of barrier used to protect trees to be retained.
  - Plant List: Provide a list of proposed plants including both common and botanical names, and indicating the quantity and size of each plant species to be planted. Use caliper measurements for proposed trees and container sizes for proposed shrubs and ground covers.
- Lighting and Signage: Location, size, and design of all outdoor lighting and outdoor signs.
- Construction and Maintenance Plan: Specify construction practices that will be used to protect existing vegetation, to control erosion and sedimentation, and to plant and establish new vegetation. Include an implementation timetable. Provide planting details, including cross sections, of how existing trees will be protected during construction and how new ones will be planted (e.g. depth and diameter of root pit).

- Stormwater Maintenance and Operation Plan: For projects with a proposed impervious surface greater than 25% of the property or more than 5000 square feet, provide an engineered stormwater containment plan certified by a Professional Engineer. Properties [threshold for Commonwealth Plan to be added] must comply with the Massachusetts Stormwater Guidelines and should submit a maintenance and operation plan demonstrating compliance, including a schedule for inspection, monitoring, and maintenance. The plan should identify the parties responsible for plan implementation, operation and maintenance. The identified responsible party should keep documentation of the maintenance and inspection records and make these available to the Commission or local board of health upon request. One year from completion of the system, a Professional Engineer should inspect the system and submit a letter certifying that the system was installed and functions as designed.
- Sedimentation and Erosion Control Plan: Land disturbance activities which are in excess of either 5000 square feet or five hundred cubic yards of earth moved require a Sedimentation and Erosion Control Plan. This plan should include sufficient information to evaluate the environmental characteristics of the affected areas, the potential impacts of the proposed grading on water resources, and measures proposed to minimize soil erosion, control sediment movement and stabilize exposed soils. The owner/developer should perform all clearing, grading, drainage, construction, and development in strict accordance with the approved plan.

The project approval may prove for the final Stormwater Management Plan and/or Sedimentation and Erosion Control plan to be submitted to and be subject to the approval of the LUPC before the start of construction.

### Applicant Offers

In addition to the site design and landscape plans, the applicant should submit offers dealing mainly with ongoing operation and maintenance, which once accepted by the Commission become conditions of the DRI approval. Please consult with the DRI Coordinator for samples of recent applicant offers or MVC conditions that might be a useful template for your offers.

## Appendix 1 - Glossary

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Caliper: The diameter of a tree trunk. For new trees this is measured 6" above the ground or root flare, for established trees in the landscape this is measured 5' above the ground or root flare.

Critical Habitat: The area defined in the Island Plan representing the most important habitat areas on the Island.

Development Envelope: The portion of a lot designated for development, including the area where all buildings, pools, other structures, roads, parking and other elements will be built as well as the area(s) in which the natural landscape may be disturbed, including lawn and garden areas.

Dormant Easement: An agreement by one property owner to grant an easement when certain conditions are fulfilled, such as providing for a shared curb cut, a shared driveway, a shared use path, or a trail to be created on the property when an adjacent property is developed or adjacent segments of these networks are built.

Easement: The right of one property owner to make use of the land of another for a limited purpose, as right of passage.

Habitat: The areas that are essential to the conservation of a listed species, though the area need not actually be occupied by the species at the time it is designated. Including the areas defined as priority habitat by the Massachusetts Natural Heritage and Endangered Species Program or as Source Habitat (other than Highly Disturbed) in the Island Plan.

Historic Plant Species: These species have been used as street trees or for other distinct purposes on specific streets or in specific areas on the Island.

Invasive Plant Species: These species are known or are likely to cause environmental or economic harm, including plants listed on the State Invasive Species list and others perceived to be a threat on the Island.

Island Appropriate Plant Species: These species are not native to the region but have been observed on the Island long enough to demonstrate that they perform well here, are relatively pest and disease resistant, support the fauna found on the Island, and are not likely to become invasive.

Island Plan: Refers to the Martha's Vineyard Island Plan, the regional plan of the Island adopted by the Martha's Vineyard Commission in 2009.

Low Impact Development (LID): A land planning and engineering design approach to managing stormwater runoff that emphasizes conservation and use of on-site natural features to protect water quality by implementing engineered small-scale hydrologic controls to replicate the pre-development hydrologic regime of watersheds through infiltrating, filtering, storing, evaporating, and detaining runoff close to its source.

Native Plant Species: These are indigenous species whose presence on Martha's Vineyard is the result of only natural processes, with no human intervention, and that are appropriate to the conditions of the Island.

Natural Heritage Program: The Massachusetts Natural Heritage and Endangered Species Program (NHESP) is a program run by the state and is responsible for the conservation and protection of hundreds of species that are not hunted, fished, trapped, or commercially harvested in the state. The Program's

highest priority is protecting the 176 species of vertebrate and invertebrate animals and 256 species of native plants that are officially listed as Endangered, Threatened or of Special Concern in Massachusetts.

Not Recommended Plant Species: Non-native species that are problematic for use on the Island, generally because they do not survive well in Vineyard conditions without the intensive watering and/or the use of pesticides or fertilizers.

Primary Agricultural Soils: Soil map units with the best combination of physical and chemical characteristics that have a potential for growing food, feed, and forage crops, have sufficient moisture and drainage, plant nutrients or responsiveness to fertilizers, few limitations for cultivation or limitations which may be easily overcome and an average slope between 0 and 6 percent. Present uses may be cropland, pasture, regenerating forests, forestland, or other agricultural or silvicultural uses. For Martha's Vineyard, these soils are defined on a map prepared by the Natural Resources Conservation Service (N.R.C.S.) of the United States Department of Agriculture (U.S.D.A.).

Priority Habitat: Priority Habitats of Rare Species defined by the Natural Heritage and Endangered Species Program (NHESP) - is the geographical extent of habitat for all state-listed rare species, both plants and animals, and is codified under the Massachusetts Endangered Species Act (MESA).

Protected Root Zone: The minimum area beneath a tree that must be left undisturbed in order to preserve a sufficient root mass to give a tree a reasonable chance of survival. A circle around the tree with a radius of 18 times the tree caliper, or 12 times for species with a vertical root structure.

Public Way: A street, road, path, bridge, or other passageway open to the public and designed for travel by vehicle, on foot, or by bike.

Roadside Viewshed: The area defined in the Island Plan representing the areas adjacent to the main rural roads of the Island visible from one or more viewing points along a road.

Scenic Roads: Any public road that affords vistas of marshes, shorelines, woods, or other natural features.

Setback: The minimum distance from the property line to where a structure may be built, as regulated by zoning regulations or other restrictions. (Note that a setback is measured from the boundaries of the subject parcel, which in most cases is set well back from the edge of the roadway.)

View channel: A protected area allowing a view by an inland or uphill property owner across an area that would otherwise be a no-cut zone (e.g. outside a Development Envelope) or across the property of another property.

Wildland-Urban Interface: The area at greatest risk for wildfire identified in the Martha's Vineyard Pre-Disaster Mitigation Plan, namely in or within 1000' of contiguous woodlands greater than 50 acres as well as areas of Pitch Pine and Scrub Oak.

## Appendix 2 - Lists of Available Documents and Maps

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### Related Documents

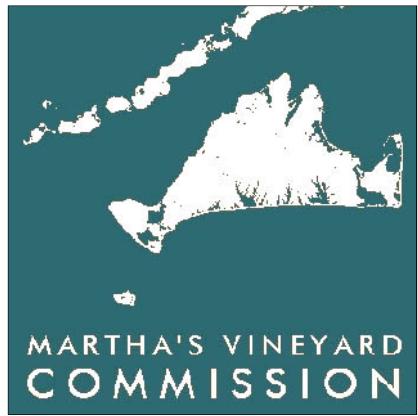
- The DRI Process and Making a DRI Application, which explain the overall process with respect to Developments of Regional Impact at the MVC, as well as how to make an application;
- The Open Space Preservation Policy, which applies to all subdivisions as well as developments on parcels greater than 3 acres, and calls for setting aside certain portions of most of these properties as permanently protected open space.
- Other MVC policies for DRI review.
- The List of Plant Species for Landscaping on Martha's Vineyard, lists of trees, shrubs, and other plants prepared in collaboration with the Polly Hill Arboretum, a nationally recognized institution devoted to the cultivation and study of plants
- Maps, referred to throughout this document (see List of Maps in appendix), are available on the MVC website or from the Commission. The MVC Coordinator can help find the appropriate maps at a useful scale.
- The Island Plan provides fuller analysis of the issues and explanation of the reasons behind the guidelines in this policy.

### Maps

The following maps may be necessary for determining the status of your site. These maps are available on the Martha's Vineyard Commission website at <http://www.mvcommission.org/dris/index.html>. Consult with the DRI Coordinator for access to this information focusing in on a specific property.

- Business Opportunity Zones (Island Plan)
- Coastal Adaptation Analysis (BioMap2 - Mass NHESP)
- Critical Habitat (Island Plan)
- Priority Habitat (BioMap2 - Mass NHESP)
- Recreational Network (Island Plan)
- Scenic Roads (Island Plan)
- Shared Use Path Network (MVC SUP Study)
- Shoreline Change (CZM)
- Wildland-Urban Interface (MVC Pre-Hazard Mitigation Plan)





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