

HISTORICAL, CULTURAL, ARCHAEOLOGICAL AND SCENIC RESOURCES

A. Introduction

Growth provides significant advantages for Vermont and the region, particularly in the creation of employment opportunities and housing. There are many examples of desirable development that have adapted very well to our historical landscapes and existing settlement patterns. The potential to create an attractive modified landscape (complementing the old with new development) exists, but change can result in landscape degradation unless cherished landscape patterns and community values are given proper consideration.

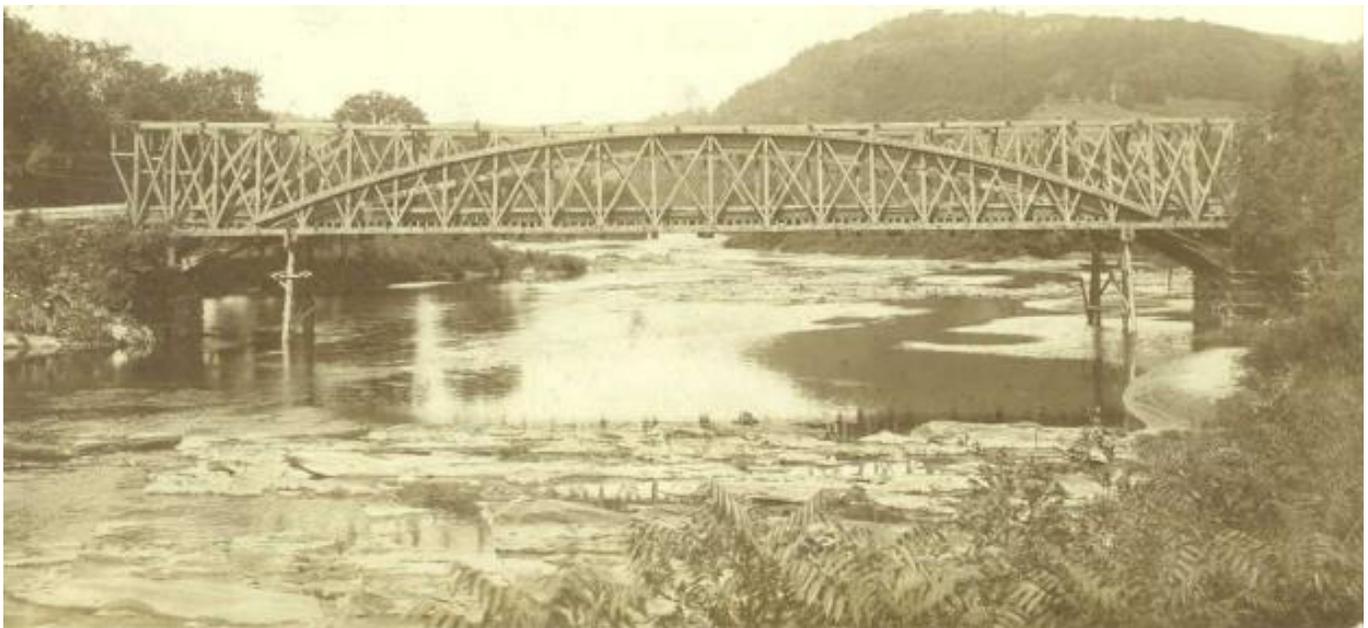
TRORC accepts the fundamental assumption that many of these losses are preventable or may be significantly mitigated. TRORC also acknowledges the strong desire of Vermonters to conserve the Vermont landscape while accommodating growth. This has been

expressed by a long history of legislation, public policy, and local planning which addresses appropriate and legitimate standards for change. Criterion 8 of Act 250 embodies these values. The Governor's Commission on Vermont's Future (1987) expressed the belief that Vermonters were supportive of maintaining many of the values expressed above. Passage of amendments to the Municipal and Regional Planning and Development Act (1988) reaffirmed the commitment of the legislature to support a planning process which furthers these goals [24 VSA § 4302(c)].

B. Historic Resources

Advantages of Historic Preservation

By definition, historic preservation is the thoughtful management of the built environment, but this is such a simplistic



Covered bridge coming down and iron bridge going up over the White River, 1902 (the covered bridge was built in 1848, the iron bridge was built between 1901-1902 | Source: Royalton Historical Society

explanation it does not reveal the importance of the historic preservation movement in the region and Vermont as a whole. The reasons for the preservation of our architectural heritage are varied.

“there’s no way you can understand the present unless you have a firm grounding in the past. Our past is part of us always, and, for Vermonters, the preservation of the unique Vermont heritage is especially important. You do that in a number of ways. We preserve our heritage through the written word, but we also preserve it in our physical surroundings, the buildings created by our forbearers. The buildings each community has are unique to that community. They represent a certain part of our past, and they can become an agent for revitalization and growth...”

~former Governor Hoff

To business owners, preservation is a mechanism to maintain a community’s interest and support in local economy. Community leaders and preservationists see historic preservation as a means to curb the decay of the traditional village center. The efforts taken in the villages of Bethel, Bridgewater, Randolph, Wells River and White River Junction to revitalize their business districts into functional economic centers serve as meaningful examples for this region. Nationally, many business owners have found that they can produce higher quality space for shops, offices, and housing through the adaptive reuse of existing buildings with less cost than new construction.

Preservation of historic buildings can increase the market value of property and increase tax revenues to towns. Buildings of architectural merit help shape community identity. In numerous settings throughout the region, preservation of important landmarks such as the Strafford Meeting House, Bridgewater Woolen Mill, Rochester Inn, and Corinth Meeting House contributes to sense of place and community pride. Once work has begun in a community, other efforts follow, often heightening community betterment and identity.

With little exception, local planning focuses on protection of rural character and open land. Preservation and revitalization encourages more private investment in the region’s villages and hamlets, helping to reduce sprawl. Likewise, the combination of rural scenery and the attractive built environment is a key reason why thousands come to the region and contribute millions of dollars to our economy.

This mix of tangible and intangible benefits is why historic preservation is important to the welfare of the region. Beyond the practical and aesthetic, preservation is part of our ethic - do not throw something away if it is still useful. Instead, common sense and tradition seek to conserve, use, and improve what already exists.

[The National Register and State Survey](#)

Beginning in the late 1960s, the Vermont Division for Historic Preservation (Division) conducted a Historic Sites and

Structures Survey for towns. Federal and state law mandate that Vermont inventory all structures and districts in the state which have historical and architectural significance. Although a building needs to be generally fifty years old, a building does not need to be an architectural landmark to qualify for inclusion in the survey;

the survey includes simple homes and buildings, as well as elaborate structures.

More than 3,000 of the region’s historic structures have been inventoried by the Division; the records are on file with the Division and are available in digital format. Planning commissions, local historical

Table 8-1: National Historic Register Landmarks, 2006

Town	Landmarks
Plymouth	Calvin Coolidge Homestead
Strafford	Justin S. Morrill Homestead
Woodstock	George Perkins Marsh Homestead

Source: Vermont Division for Historic Preservation

Table 8-2: National Historic Register Districts, 2006

Town	Districts	Town	Districts
Bethel	Bethel Village	Newbury	West Newbury Village
Bradford	Bradford Village	Norwich	Norwich Village
Brookfield	Allis State Park	Plymouth	Coolidge State Park
Brookfield	Brookfield Village	Plymouth	Plymouth Notch Historic District
Chelsea	Chelsea Village	Randolph	Depot Square
Fairlee	Aloha Camp	Randolph	Randolph Center
Fairlee	Lanakila Camp	Royalton	South Royalton Village
Hartford	Jericho Rural	Stockbridge	Stockbridge Common
Hartford	Christian Street Rural	Strafford	Strafford Village
Hartford	Hartford Village	Thetford	Camp Billings
Hartford	Quechee Village	Thetford	Thetford Center
Hartford	West Hartford Village	Thetford	Thetford Hill
Hartford	White River Junction	Thetford	Thetford Hill State Park
Hartford	White River Junction Boundary Inc.	Tunbridge	Tunbridge Village
Hartford	Wilder Village	West Fairlee	Aloha Hive Camp
Newbury	Bayley District	West Fairlee	Camp Wyoda
Newbury	Newbury Village	Woodstock	South Woodstock Village
Newbury	Oxbow District	Woodstock	Taftsville
Newbury	South Newbury Village	Woodstock	Woodstock Village
Newbury	Wells River Village		

Source: Vermont Division for Historic Preservation

Table 8-3: Vermont Historic Districts, 2006

Town	Districts	Towns	District
Barnard	Barnard Village	Randolph	Lincoln/Chestnut Streets Historic District
Barnard	East Barnard	Randolph	North Main Street Historic District
Bethel	Bethel Mills Historic District	Randolph	Park/Central Streets Historic District
Bethel	East Bethel Village District	Randolph	Randolph Avenue Historic District
Brookfield	East Brookfield Historic District	Randolph	School/Franklin/Summer Streets Historic District
Brookfield	West Brookfield Village	Randolph	S. Main/S. Pleasant Streets Historic District
Corinth	Cookeville	Randolph	South Randolph Village
Corinth	Corinth Center	Randolph	Weston Street Historic District
Corinth	East Corinth	Rochester	Rochester Village Green Historic District
Fairlee	Fairlee Village	Royalton	Depot Square Historic District
Granville	East Granville Village	Royalton	Foxville Historic District
Granville	Granville Village	Royalton	Royalton Common Historic District
Granville	Lower Granville Village	Royalton	Royalton Village District
Hancock	Hancock Village	Sharon	Day Farms Historic District
Hancock	Virgin Avenue Historic District	Sharon	Sharon Village
Hartland	Hartland Three Corners Historic District	Strafford	Dublin Corner Historic District
Newbury	Boltonville Historic District	Strafford	Smith Farm Historic District
Newbury	Farnham - Atkinson Historic District	Strafford	South Strafford Historic District
Pittsfield	Pittsfield Village	Topsham	East Topsham Village
Plymouth	Plymouth Union	Topsham	Waits River
Randolph	East Randolph Village	Tunbridge	South Tunbridge Village

Source: Vermont Division for Historic Preservation

societies, building owners, and others interested in the details surrounding buildings of historic and architectural merit are encouraged to contact the Division. Technical assistance and grants are available to assist in the conservation of these properties.

To aid in the preservation of the most notable historic resources, Congress in 1966 created the National Register of Historic Places (Register). The Register is a federal list of culturally important

properties worthy of preservation. Inclusion in the Register offers a measure of protection against federally licensed or funded construction projects because federal agencies are required to consider the impact of their projects on properties included in or eligible for inclusion in the Register. Many of the buildings and structures included in the State Survey are eligible for the National Register.

Under the provisions of Section 106 of the National Historic Preservation Act, prior to

proceeding with a federally funded project affecting an historic structure, the federal agency and the State Historic Preservation Officer, must attempt to identify ways to avoid or minimize adverse impacts. One successful example, was the replacement of the Elm Street Bridge in Woodstock Village which is listed on the Register. In this case, the Vermont Agency of Transportation and Federal Highway Administration were forced to waive national bridge design standards and to downsize the project to retain many of the elements and components of the historic smaller and narrower bridge.

Another advantage of the Register is that owners of income producing buildings are eligible for tax credits on rehabilitation work, provided such work meets with certain prescribed standards.

Programs for Historic Preservation

Several state organizations and agencies have been actively involved in historic preservation and community development. The Preservation Trust of Vermont (Trust) is a non-profit corporation to assist in the continuing statewide effort to protect special architectural resources. The Trust works with local governments, individuals, and groups to secure and protect properties. The Division for Historic Preservation has matching grant programs for historic preservation projects for which communities and property owners are eligible. The Vermont Agency of Transportation is also engaged in historic preservation related projects. As part of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for

Users (SAFETELU), enhancement grants are available for a variety of projects including bridge rehabilitation and restoration, downtown transportation facilities, pedestrian and bike trails.

To enhance downtown revitalization efforts in 1994, the Agency of Commerce and Community Development, the Preservation Trust of Vermont, and the National Main Street Center formed the Vermont Downtown Program. The Program provides technical support to communities interested in using historic preservation as an economic development tool. Nationally, such programs have been very successful. In 2000, Vermont expanded the scope of the Downtown Program to allow smaller villages to participate, known as “Village Designation”.

Yet another innovative program is the Vermont “Barn Again” program which awards matching grants on a competitive



*President Theodore Roosevelt
Visiting the Region in 1902
| Source: Roylton Historical Society*

basis to farmers for maintaining historic agricultural buildings. This program is sponsored by the Division for Historic Preservation, National Trust for Historic Preservation, and Vermont Agency of Agriculture, Food and Markets.

Lastly, the Vermont Community Development Program, administered by the Department of Housing and Community Affairs, provides grant funds to communities to improve housing, create and retain employment opportunities, and improve public facilities in support of housing and economic development activities.

Local Historic Preservation Methods

Under the provisions of the Vermont Municipal Planning and Development Act (24 VSA §4414) municipalities are enabled to protect areas of historic and architectural significance by designating historic districts or areas as part of local zoning bylaws. Within such areas, prior to exterior modifications to a structure or the erection of a new one, the local planning commission must first grant approval. In making such a determination, the commission must first evaluate the nature of the proposal against specific design criteria to insure that it does not impair the special character or significance of the surrounding area. Within the region, four such bylaw provisions exist and appear to be functioning well. They cover historic districts in Chelsea Village, White River Junction, South Woodstock and Woodstock Village. Throughout Vermont communities have similar provisions in effect. Interest in design review and

approval for historic preservation purposes has been on the increase throughout Vermont.

Under the provisions of Act 250, Criterion 8 protects historic sites along with other resources. Before granting a permit, the District Commission or Environmental Court needs to find that the subdivision or development will not have an undue adverse effect on historic sites. Historic sites are defined as those included in the National Register of Historic Places, the State Register, or other properties deemed historically significant by the Division For Historic Preservation (10 VSA §6001(4)). In approaching such a determination, the Act 250 review process can evaluate local and Regional Plans to determine whether or not the proposed project violates a community standard intended to preserve the historic qualities of the site.

Non-regulatory approaches to historic preservation are of equal importance. Local historical societies should continue the research, documentation, education, and advocacy efforts that they have pursued in their communities. Developers should be encouraged to incorporate historic structures and important architectural details into their project planning. The adaptive reuse of old buildings that no longer serve their original function is often preferable to the destruction and replacement of those buildings. Public acquisition and use of particularly important historic buildings may be appropriate when new or expanded public facilities are needed.

Goals, Policies and Recommendations: **Historic Resources**

Goals

1. To preserve and to enhance the unique characteristics of historic sites or areas, where the public interest is clearly benefited thereby.
2. To enable and support the renovation of existing or construction of new structures when they are found to be consistent and compatible with historic character of the site or area.
3. To promote sensitive economic development in areas of historic value such as in town centers, villages, and hamlets.
4. To promote improvements to historical transportation facilities, instead of replacement.

Policies

1. Land development or subdivision within or immediately adjacent to areas or sites of historic significance should be permitted provided that efforts are taken to insure that the design of the project fits the context of the dominate character of the immediate area or environment.
2. Restoration or rehabilitation of historic structures, buildings, neighborhoods, or sites should be encouraged where the design does not destroy or significantly alter its distinguishing qualities, integrity or character and immediate environment.
3. Unnecessary destruction or removal of historic structures, buildings, or sites is discouraged.
4. When new buildings or structures within historic areas are proposed, they should have a design that is compatible with and sensitive to the character of the neighborhood.
5. Public improvements or structures such as bridge rehabilitation or replacement, street widening, roadway reconstruction, signage, utility distribution systems, and lighting should be designed to avoid unnecessary degradation of recognized historic sites or areas. Public investments of regional or statewide significance should be planned in consultation with local and state officials, as well as the Division For Historic Preservation, to encourage compatibility and consistency with their planning objectives.

Recommendations

1. TRORC should continue to support efforts to designate National Historic Register Districts and Sites. In so doing, TRORC should coordinate with the State and affected municipalities. In accordance with Section 106 of the National Historic Preservation Act, TRORC must review all federally funded projects in the region which affect register properties or places to assure that such publicly assisted projects are planned with due consideration to the resource.

Goals, policies, and recommendations continued on next page

Goals, Policies and Recommendations: **Historic Resources**

Recommendations (continued)

2. TRORC, as part of its Transportation Planning Program, should continue its work with the Agency of Transportation, town officials, its Transportation Advisory Committee and other groups and organizations to ensure that design standards and plans for proposed transportation projects are reasonably compatible with historic resource needs and values. (See Transportation chapter.)
3. Towns are encouraged to clearly outline in their plans those resources deemed worthy of protection. Town officials can participate in the Act 250 process, thus influencing decisions affecting historic sites in their community.

C. Archaeological Resources

Background

Archaeological evidence found throughout the state colors a history of human occupation that dates back 12,000 years. Most native populations in the Northeast lived in small groups that subsisted by following a seasonal cycle of resource availability. Rivers provided an important transportation network, water supply, and fishing grounds. River basins defined community and hunting territories, and provided geographic markers and access to the region. These basins are generally areas that possess suitable characteristics such as slope, exposure, topography, distance to water and access to food sources to make them likely archaeological sites.

White settlers first used the rivers for access routes into the wilderness and later cleared the river banks and floodplains for agriculture during the eighteenth century. The early industrial period of the nineteenth century harnessed the rivers' power to supply local mills, water systems, tanneries, forges, and furnaces. Statewide, there are more than 370 historic sites

located within a quarter-mile of a river, including historic districts, mills, and covered bridges.

The archaeological record provides the only evidence of pre-European human occupation. In addition, the record can provide information about past environments, climate, and landscape changes. Although only a few archaeological sites in the region have been designated on the Vermont Archaeological Inventory, there are many areas whose topography and proximity to natural resources indicate a likelihood of pre-European habitation. Areas in proximity to certain prominent natural resources should be recognized as areas of archaeological sensitivity. As described in the Town of Bennington's Archaeological Survey, prominent resources include the following:

1. ***Current or relic water supplies*** – including streams, rivers, lakes, ponds, and springs. Topographic clues to relic water supplies include kettle holes and dry ravines. Long-term occupation or camp sites were

always located near a water supply.

2. Chert or quartz outcrops

— These sites were often used repeatedly on a short-term basis for extraction of materials for tool-making. The terrain of such sites is often rugged; short-term camps may be located nearby.

3. Rock-shelters — Often located in limestone outcroppings, these sites were often transient sites used for generations.

Most prehistoric sites are located within 300 to 500 feet from an existing or relic water source, on slopes of eight percent or less, and often have a southern exposure. Criterion 8 of the Act 250 permitting process requires that a development “will not have an undue adverse effect” on historic sites and sites of archaeological importance. However, Act 250 only covers larger developments and many archaeological sites may be located on private land. For areas of potential archaeological significance, private landowners need to know how best to

preserve important resources on their land. Since many archaeological resources are located in areas such as river corridors and prime agricultural land, preservation and conscientious management of such land will serve multiple purposes. As with any land conservation project, purchase of land and acquisition of development rights are important methods for preserving archaeological sites.

Public awareness, appreciation and understanding of the region’s archaeological resources is limited. This is due partly to incomplete documentation of the resources, and partly to a narrow perception of what constitutes archaeological resources. Lack of recognition and appreciation can result in missed opportunities for stewardship. These resources are not easily identified and are often subject to accidental destruction. Additionally, there is a perception by landowners that the protection of archaeological resources invariably means more restriction on the use of their property without much benefit.

Table 8-4: Predictive Factors for Locating Pre-Historic Archaeological Sites

• Near to Existing or Relic Rivers, Streams, Lakes, and Ponds
• Adjacent to Wetlands in Excess of One Acre
• Near the Confluence of Rivers and Brooks
• Adjacent to Falls, Rapids, and Isolated Springs
• Near to Knolls, Ridges, Crests, Terraces, Outcrops or other Topographic Outbreaks
• Near Major Floodplains or Alluvial Terraces
• Adjacent to Caves or Rock-shelters

Source: Vermont Division for Historic Preservation, Environment Predictive Model, April 1995

Goals, Policies and Recommendations: **Archaeological Resources**

Goals

1. To preserve archaeological resources within the region, and to promote an appreciation of their value as a vital aspect of the region's historic and cultural past.
2. To better integrate comprehensive planning and land use development with archaeological resource protection at the federal, state, regional and local levels.

Policies

1. Archaeological resources are recognized as important links to the region's prehistoric and historic record, and are important components of our landscape. Such known and potential resources must be protected where the public interest is clearly benefited. No land development should be permitted when it results in unnecessary loss of an archaeological resource of state or federal significance.
2. Within archaeologically sensitive areas, planning should consider the impacts a project may have on the resource. If warranted, a site inventory should be conducted as part of project planning. Projects that unduly impact these resources should be discouraged or redesigned so as to mitigate the impact. Project planners are encouraged to contact the State Archaeologist for further information.
3. To preserve significant archaeological sites, purchase of land or development rights is encouraged when such actions are compatible with local plans and this Plan. Because these sites are often farmland, floodplains, wetland margins, and other similar low-lying land, priority should be given to projects which serve multiple conservation purposes.

Recommendations

1. To increase public awareness of archaeological resources, TRORC encourages archaeologists, local and regional groups, towns, and landowners to organize educational programs focused on Vermont. Such a program could be made a part of an overall cultural heritage program through public schools.
2. Local planning commissions, conservation commissions, historical societies, and other interest groups are encouraged to develop an archaeological plan for their community as part of the overall master planning program. Such a plan could contribute to an important step in planning for future development in identified areas or areas most likely to contain sites. Assistance and guidance are available from the State Archaeologist within the Division for Historic Preservation.

D. Scenic Resources

Background and Goals

The landscape of the region is an economic asset. It represents some of the finest examples of townscapes and rural scenic character in the world. It has tangible economic value. Tourists spend money in the region because they are attracted to the scenery, values, and quality of rural life. Tourism is a significant industry in Vermont's economy.

In Vermont, the economic value of scenic resources to tourism cannot be lightly brushed aside. The public's commitment to conservation of our visual resources can be traced to the late 1960s with the passage of Vermont's anti-billboard legislation. This legislation was strongly endorsed by the Vermont Hotel and Motel Association which recognized the direct economic relationship between land conservation and a growing tourism sector. A past Governor's Commission on the Economic Future of Vermont summarized: "we consider Vermont's environment to be the goose that lays golden eggs". All municipal plans prepared and adopted by member towns in the region consistently

stress the goal of coordinating economic development with maintenance of rural character. TRORC believes it is appropriate public policy to recommend standards which, if reasonably followed, will minimize or mitigate any adverse effects of development on recognized scenic resources.

Patterns for Development - A Community Standard

The inherent beauty of the region is tied to the visual relationship between buildings, the working landscape, and its mountains and river valleys. Over the past thirty years, development patterns have emerged which propagate highway strip development. Such a land use pattern will serve, amongst other factors, to destroy the transition between town village centers and the countryside. It is not in the public interest to promote or endorse such a sprawling pattern of development in this region. Continued emphasis and restructuring of municipal planning and zoning administration, that addresses the delicate balance of the landscape elements mentioned above, can effectively preserve the landscape heritage in many areas of the region. Act 250 is not the answer. It is



Red Barn, Quechee: An illustration of "rural scenic character." | Source: ©Jericho Hills Photography

not intended to ensure a specific pattern of development, but only to evaluate projects on an incremental case-by-case basis.

The region's landscape is also changing due to a gradual reforestation and loss of fields and meadows due to a reduction in agriculture. The resultant land use pattern is a product of economic forces which can permanently alter or pressure that landscape. TRORC supports a land use planning concept which encourages a pattern of development that complements the traditional settlement pattern clearly recognized and existing in the region.



View from the Beidler Family Farm in Randolph Center: An illustration of diversity, harmony, focal dominance, and intactness.

| Source: ©J. Colby, 2006

Determining scenic significance and evaluating the probable impacts of land development or subdivision on the resource and the recommended measures that may be desirable to mitigate visual impacts is a complex matter. Projects which are planned in areas of scenic significance are more likely to impact the resource. It is appropriate that municipalities, TRORC and other entities employ a process for evaluating impacts and to recommend design characteristics to be considered by those involved in the review and preparation of development proposals.

Prominent Landscapes

The following areas are likely to be affected by projects and should be reviewed. Such areas are generally accepted as areas of scenic significance:

1. Shorelands immediate to public lakes, rivers, or ponds;
2. Areas immediately adjacent to scenic corridors;
3. Prominent ridgelines, mountain tops, or excessively steep slopes that can be readily viewed from public corridors;
4. Exceptional agricultural and historic areas, recognized as outstanding resource values;
5. Areas within or immediately adjacent to natural areas (i.e. wetlands) designated by the State; and
6. Areas of high scenic quality which are publicly recognized as exceptionally unique or are

noted examples of the dominant characteristics of an area in the region.

There are several kinds of scenic landscapes ranging from villages, urban centers to distant mountain views. Their relative importance is dependent on the several characteristics which make some landscapes more scenic than others. These characteristics are:

1. **Landscape diversity** - a combination of scenic elements which increases the effect, including:
 - a. topographic variation;
 - b. mixture of open meadows and woodlands;
 - c. water;
 - d. distant views; and
 - e. mixture of vegetative types.
2. **Extent of Order or Harmony in the Manmade Landscape** – Landscapes that contain a sense of order or logic, such that a clear sequence of villages and surrounding rural countryside exist. The cultural landscape that is represented by sprawl becomes indistinguishable and often chaotic. Order is heavily influenced by the following:
 - a. scale of building;
 - b. pattern of buildings; and
 - c. architectural similarities in form, size, or other factors.
3. **Focal Dominance** - Natural or man-made landscapes that are clear and dramatic focal points are more sensitive to scenic disruption; and

4. **Intactness/Uniqueness** -

Landscapes that have retained traditional patterns or forms or have absorbed modern development with minimal disruption are unique and are more likely to contribute to the scenic quality of an area.

Prominent Ridgelines or Mountain Tops

Where land development or subdivision is proposed on a prominent ridgeline or mountain top and visible from a scenic corridor, design plans should work toward the goal of retaining its prominent natural appearance. To accomplish this, structures or buildings are encouraged to locate away from the highly visible ridgeline to a lower backdrop on the hillside and structures should be partially hidden within existing wooded hillsides, where possible, and avoid excessive use of reflective glass.

Highly Scenic Areas with Distant Views

Where land development or subdivision is proposed in the foreground of a highly scenic location with distant views, design plans should work toward the goal of retaining or enhancing the view. New buildings or structures should be as unobtrusive as reasonable. To accomplish this, structures or buildings are encouraged to be designed so as to be compatible with the traditional pattern, scale, size, form, etc., and not unnecessarily block distant views from highways noted as especially scenic. Buildings or structures are encouraged to be sited in less visible areas such as at the edges of or within wooded areas rather in open meadows.

Clustering of buildings or structures is encouraged to leave vistas open on the site. Design of structures which is not excessive and do not unduly compete with the existing natural or cultural focal point is encouraged.

Scenic Agricultural Land

Where land development or subdivision is proposed on highly scenic agricultural land within a scenic context, design plans should work toward the goal of retaining the overall quality of the scenic area and of minimizing loss of the agricultural potential of the land. To accomplish this, structures or buildings are encouraged not to be sprawled over the entire site, leaving areas that are unusable for agriculture. In the alternative, development or subdivisions should be planned so that structures are clustered or located in a manner that remaining land is made available for practical use as open land, cropland, or hay-land. Common access drives to properties are encouraged. Location of utilities and common access drives is encouraged on the site away from productive agricultural land and in a manner to minimize visual impact on the scenic resource.

Scenic Areas Highly Visible from a Public Corridor

Where land development or subdivision is proposed in scenic areas highly visible from a public corridor, design plans should work toward the goal of minimizing the adverse visual impacts often associated with large-scale box-like buildings and/or large lot parking areas. To accomplish

this, structures, buildings and other site improvements should be planned so that building form, massing, and other features are compatible with dominant patterns of the area or site and in ways that reduce the apparent scale of the project on the site. Design planners are requested to break large parking areas into smaller lots with ample landscaping or screening from off-site views, and to locate the project on the less scenic areas of the site. Prominent grade changes that starkly contrast with existing or surrounding contours are discouraged.

Built Environment with Scenic Value

Where land development or subdivision is proposed within or adjacent to a built environment noted for its exceptional scenic value, including historic sites or areas recognized by the State of Vermont or municipalities, design plans should work toward the goal of minimizing contrast with the exceptional resource and to enhance visual quality. To accomplish this, project planners are encouraged to site buildings and structures that are compatible with the scale, massing, texture, or otherwise respect the pattern of nearby structures. Plans that promote large box-like structures which sharply contrast with existing scenic resource values are not recommended, particularly where the composition of the overall project is highly visible from public viewpoints.

Industrial or Commercial Development in Areas of Scenic Value

Where single purpose developments such as industrial or office parks, or

shopping centers are proposed in areas of exceptional scenic value, design plans should work toward a goal which reflects the traditional settlement pattern and characteristics of the area. To accomplish this, project planners must design the site so the development does not appear to be grossly out of scale with its surroundings. It must not extend or enlarge existing patterns of development that are deemed unacceptable (e.g. strip development).

Design solutions should respect location and design of the project to minimize visual intrusion on the most valuable scenic attributes of the site. They should respect the natural contours of the land, utilize, where necessary, landscaping which harmonizes with existing vegetation to create project buffers and screening of buildings, and to encourage pedestrian access and internal circulation.

Policies: Scenic Resources

Policies

1. Where development is proposed in areas of scenic value - because they possess scenic views, contain land with historic or scenic significance, or are highly visible within a scenic context, design plans must:
 - a. Maintain the prominent natural feature of the developed area;
 - b. Work toward enhancing or retaining views;
 - c. Minimize adverse impact on views and areas of historic significance;
 - d. Minimize contrasts with areas of historic significance;
 - e. Reflect traditional settlement patterns.
2. Certain areas immediately adjacent to major highways are examples of development sprawl. They adversely affect scenic resource values of the traveler. Generally referred to as strip development, buildings, parking lots, and signage are oriented to the automobile rather than the pedestrian. Because strip development lacks focus or orientation, it is generally considered confusing and inhospitable. Such forms of development are generally considered contrary to the preferred development pattern of this region.
 - a. In spite of the general policy that strip developments are to be discouraged and contrary to the spirit of this Plan, it is recognized that certain areas have been or will be developed or redeveloped principally for commercial or industrial uses.
 - b. To the extent feasible, project planners are encouraged to minimize the adverse effects of strip development on existing visual resources by consideration of the following design principles:
 - Provide pedestrian and vehicular links between projects;
 - Reduce impacts of parking areas by breaking the lots into small groups with integrated landscaping;
 - Encourage compact and densely developed projects which utilize land efficiently;

Policies continued on next page

Policies: **Scenic Resources**

Policies (continued)

- Preservation of open space, if appropriate, be of a distinct area of visual or functional importance rather than useless bits of greenery between buildings, etc.;
 - Placement of street trees which act as buffers between traffic arteries and internal drives;
 - Use of signage and other structures that effectively communicate the desired message or use of the site without being garish;
 - Layout of the project site to allow for coordinated future use of the entire parcel;
 - Reduction of apparent scale of excessively large buildings by varying the pattern, number, size, and location of structures within the site;
 - Employ screening plans for visually objectionable features on the site, including dumps, refuse disposal sites, and building equipment; and
 - Minimize access roads or curb cuts onto public highways and use of common access drives.
3. An integral scenic element of the rural countryside is the extensive network of roads which comprise town and state highway systems. These roads are often characterized by relatively narrow roadways of diverse and contrasting features in close proximity. These characteristics combined provide a unique visual experience and awareness of the landscape. With some exception for principal arterials, it is in the public interest to retain these special features. Given their unique visual experience, roads exhibiting exceptionally high scenic and cultural values, and determined to be of local or state significance should be constructed or improved with due concern for the special scenic qualities inherent to the roadway and roadway fringe. Substantial modifications or off-alignment options which unnecessarily destroy the special characteristics of such roadways are not consistent with this Plan. Use of appropriate design standards is encouraged and should be related to highway functional classification.

E. Scenic Values and Telecommunications Facilities

Background

TRORC recognizes that transmission towers are necessary telecommunications facilities, but as land uses, these towers have emerged as planning concerns. To

ensure adequate transmission of signals in mountainous areas such as this region, towers and related facilities need to be confined to hilltops or high elevation points. Thus, due to their higher visibility from multiple vantage points, conflict with scenic landscapes has become an issue.

Over the years, the District Environmental Commission III, in its administration

of Act 250, and some municipalities as part of their zoning review, have had to evaluate these uses. Some cases have been contentious, resulting in delays and expensive appeals. Most local plans and bylaws lack definitive policies, standards of review, or key information necessary to enable a fair and comprehensive evaluation of the impacts posed by these issues.

TRORC is aware of the potential problems and opportunities associated with these uses and have devised land use policies and standards to assist in mitigating conflicts and to give constructive guidance to the industry and affected municipalities. As a result, municipalities have begun adopting telecommunications tower language in Town Plans and have adopted zoning provisions.

The Federal Communications Commission (FCC) retains jurisdiction over public airwaves and the telecommunications industry in general. Additionally, the Federal Aviation Administration (FAA) exercises control over the location and height of towers and similar structures to prevent interference with airport operations. Under Vermont law (24 VSA Chapter 117), municipalities may require that certain standards be met prior to the erection of telecommunication facilities. Local bylaws may regulate the use, dimension, location, and density of towers, however, FCC rules are preemptive of local and state law where conflicts exist. Current practice within the FCC is not to specifically regulate the location, height, or design of individual owners. However, FCC uses the “central point doctrine” that provides for the location of transmission

antenna to be at the “most central point at the highest elevation available”. Given, this rule and others promulgated by the FCC, municipalities and the State may not be overly restrictive of or prohibit these types of facilities. In sum, the extent of local and state regulation is limited, must be reasonable, and serve the public interest.

TRORC has devised land use policies and standards to assist in mitigating conflicts and to give constructive guidance to the industry and affected municipalities.

In late 1994, the Cellular Telecommunications Industry Association requested the FCC to push state and local governments out of the siting process entirely. Additionally, bills were introduced in Congress to limit local and state authority over telecommunications. Most of these actions have been opposed by state and municipal organizations, and are viewed as unnecessary invasions of state and local control. TRORC does not favor preemption and supports cooperative efforts between the industry, the State, and municipalities to plan and regulate the future build-out of the telecommunications system affecting the region. The 1996 Telecommunications Act ensures a local voice in siting decisions.

Goals and Policies: **Scenic Values and Telecommunications Facilitates**

Goals

1. To improve telecommunication coverage in the region.
2. To support the enhancement of telecommunications network when such facilities do not have significant adverse environmental, health, or aesthetic impacts.

Policies

1. In order to minimize tower proliferation, it is the policy of TRORC to encourage applicants to exhaust all reasonable options for sharing space on existing towers or tower sites prior to proposing new towers sites and related facilities. The principle of co-location is the favored alternative. In making such a determination on the feasibility of co-location, proposers should evaluate space available on existing towers, the tower owners ability to lease space, geographic service area requirements, mechanical or electrical incompatibilities, the comparative costs of co-location and new construction, and regulatory limitations.
2. One of the region's principal scenic qualities are its ridgelines and mountainsides. These areas are significant contributors to the rural character of the region. The ridges are predominately undeveloped and provide an unbroken skyline viewed from the valley floor. The use of the region's ridges for telecommunication towers and related facilities needs to be undertaken in a manner that will not unduly detract nor adversely affect these scenic values. Protection of these areas from insensitive developments are matters of public good. To minimize conflict with scenic values, co-location is the first choice, followed by an analysis that provides the least impact for the desired coverage. Facility design and construction should employ the following principles:
 - a. Use the minimal height necessary, and where feasible, be sited in areas not highly visible to the traveling public, or from residential areas, historic districts, and public use areas or outdoor recreation areas such as hiking trails and beaches;
 - b. Be located in forested areas or be sufficiently landscaped to screen the lower sections of towers and related ground fixtures from public vantage points, such as trails, roads, or water bodies;
 - c. Utilize materials, architectural styles, color schemes, lighting fixtures, mass and other design elements to promote aesthetic compatibility with surrounding uses and to avoid adverse visual impacts;
 - d. Where prominent views of a site exist, be located downgrade of the ridge so as not to exceed the elevation of the immediate ridge;
 - e. Where construction of access roads, power or phone lines are involved, minimize their visibility by constructing them along the contour of the land and avoiding any open fields or meadows. This is also intended to reduce their ability to encourage secondary development;
 - f. Avoid peaks and ridges which function as regional focal points.

Goals and policies continued next page

Goals and Policies: **Scenic Values and Telecommunications Facilitates**

Policies (continued)

3. In planning for telecommunication facilities, consideration should be given to the environmental limitations of any given site. Impacts of the use on wildlife habitats, soil erosion, forestry and agricultural lands, and similar resources should be carefully addressed. Projects which materially impact these resources are discouraged.
4. For telecommunication projects situated on lands owned by the State, design plans should be compatible with current Management Plans for Public Lands adopted by the Agency of Natural Resources.
5. Towers, antennae, and related fixtures that fall into disuse, or are discontinued should be removed to retain the values set forth above. Local and state land use permits should incorporate such as an approval condition.
6. When facilities and tower configurations are dependent upon others being constructed along a corridor, then the entire string of facilities should be considered as a whole so that piece-meal permits do not preclude more amenable options.
7. The clearing of land associated with site development for tower and facility construction should not negatively impact the scenic views present.
8. Towers or facilities that are designed to resemble trees or natural features should not be placed conspicuously higher than the tree line.

F. Outdoor Lighting Design and Management

Issues and Opportunities

Increased development in the region in recent decades has brought about a corresponding increase in the use of outdoor lighting. These include new parking lots, brighter street lighting in our towns and villages, floodlights on commercial and industrial complexes, and lighted gas station canopies at our interchanges and along our major roads. While increased lighting can be seen as an inevitable result of growth, there is a concern that excessive and unplanned lighting results in unwise and uneconomic

energy use, contributes to “light pollution,” affects our ability to view the night landscape as well as creating an adverse impact on the character of our historic villages.

With the advent and increased use of new lighting technologies since the 1950s, commercial enterprises, industry, towns, and others have new tools to shape the nighttime environment. Many of these new lighting installations are well-designed, provide good night vision at reasonable levels and fit well into their immediate surroundings. Others do not. Problems of glare, over-lighting, light escalation, sky-glow, and energy waste have become more common.

Planning commissions, developers, and regulatory review agencies often lack information and expertise to adequately review design lighting schemes that reflect the basics and principles of good lighting design. This Section is intended to provide guidance and standards to assist policymakers in evaluating lighting issues, opportunities, and costs. It is also intended to provide communities with clear policy statements to enable them to evaluate new lighting installations located on public and private property.

Lighting is more than a functional part of the region's infrastructure. It is a design tool that can influence and shape the night landscape in our villages and outlying areas. Choosing the appropriate light sources and intensity makes good economic and environmental sense. By selecting a lighting design that enhances nighttime comfort, our town centers and other areas planned for concentrated mixed use will be better served. This results in a more efficient and compact land use pattern and sound transportation strategy for the region. Thus, functionally, good lighting design will lead to enhanced night environments.

In May, 1996, the Chittenden County Regional Planning Commission published: *Outdoor Lighting Manual for Vermont Municipalities*. The study was funded by the U.S. Department of Energy, The Vermont Department of Public Service and several of Vermont's electric utilities. This study is a valuable resource to the region and its communities interested in managing outdoor lighting, improving lighting designs, energy conservation,

and preservation of the night landscape. The suggestions and recommendations contained in the Manual form the basis of many of the design principles and issues are reflected in this Section of the Plan.

The purpose of an outdoor lighting installation should be to enhance the visibility necessary to provide lighting for a given task or need. Using a large quantity of light does not guarantee good visibility, however. Over lighting can cause glare and other problems that hinder good vision. Lighting problems arise when competing properties are illuminated at very different levels. For example, a brightly lit auto sales parking lot situated next to an adequately lit restaurant can make it look dark by comparison. Studies have shown that this leads to "competitive" lighting - more light is added to reduce the risk of not being seen. This results in more lighting equipment, and higher electric bills for businesses, and the loss of character in an area.

Excessive light levels can vary according to the use. Conventional parking lots generally need higher light levels than passive recreational parks. Using the minimal amount of light necessary to allow adequate visibility for a site decreases sky-glow and avoids escalation of light levels.

Glare is another lighting issue facing growing communities in the region. Excessive brightness makes it difficult to see. Good visibility can be accomplished with less light. Glare is caused by misdirected fixtures or unshielded lamp sources. Light that is not directed toward the ground or toward the intended surface

can shine into the viewer’s eyes, impairing vision causing potential safety problems.

With the advent of many new types of lamps, modern lamps come in a variety of colors depending on type and lamp intensity. Color is an issue for exterior lighting. Certain lamps color differently and can significantly change the natural color of an object or make it difficult to distinguish one color from another. Since the early 1970s energy crisis, large-volume users of electrical lighting have sought alternatives to conventional lighting. Several towns and many businesses in the region have retrofitted street lighting and parking areas to high pressure sodium fixtures (HPS). This has resulted in the orange-yellow light that significantly changes the color of the night landscape.

Sky-glow or reflected light from surfaces is visible in the night sky over towns or large commercial/industrial complexes. Sky-glow is a form of “light pollution.” Sky-glow contributes to a loss of our ability to see stars and other celestial elements of our

galaxy. Reducing sky-glow is a desirable objective for the region. Techniques to reduce the amount of illumination shining directly into the sky can reduce sky-glow and the overall level of lighting to be used.

Security lighting is another popular use of outdoor lighting designed to protect people and property. Interestingly, studies by lighting professionals and those in the field of security show that light itself does little to prevent crime. (See Chittenden County Regional Planning Commission “Outdoor Light Manual For Vermont Municipalities”, May, 1996, pp. 19-20). Other factors, such as gates, locks, alarm systems, and guards are far more effective means to deter crime. In spite of this, lighting can act as a deterrent to crime by psychologically increasing the chance to an offender that he or she will be seen. Therefore, good security lighting should be designed to produce good visibility. This should be accomplished with even light that is not too bright to produce glare or to create shadows.

Goals, Policies and Recommendations: **Outdoor Lighting Design and Management**

Goals

1. To preserve the nighttime ambiance and aesthetic qualities of village centers and other places by illuminating them for safety and convenience in ways that enhance the best qualities of streets, architecture, and public spaces.
2. To enable outdoor lighting systems that conserve energy and minimize life cycle costs.
3. To encourage lighting design that is creative and functional consistent with these lighting goals and policies.
4. To provide technical guidance and support to municipalities and others on lighting trends, needs, and opportunities.

Goals, policies and recommendations continued on next page

Goals, Policies and Recommendations: Outdoor Lighting Design and Management

Policies

1. In developing lighting plans, observance of good design light levels and distribution should be appropriate for the proposed use of the site and compatible with the character of the neighborhood. New lighting installations should be designed to minimize glare, to not directly light beyond the boundaries of the area to be illuminated or onto adjacent properties, and to not result in excessive lighting levels.
2. For larger projects, lighting professionals should follow lighting design guidelines and other technical information established by the Illuminating Engineering Society of North America (IESNA). Such information will be useful in evaluating and developing lighting schemes for particular uses and settings, but not necessarily in all situations. Additionally, project planners should give due consideration to the guidelines set forth in the “Outdoor Lighting Manual for Vermont Municipalities”. Design criteria that exceeds IESNA recommendations for outdoor lighting should be evaluated for conformity with this Plan, particularly as they may relate to the effects on the character of the area and aesthetics.
3. Project designers are encouraged to utilize fixtures to reduce glare. Where a light source is particularly bright compared to its background, use of cut-off or shielded fixtures to direct light downward or a reduction on the amount of light being generated is encouraged. Such a practice should utilize lighting more efficiently, minimize the amount of wasted light, and reduce energy costs.
4. Excessively high lighting levels for uses in rural or very low residential areas are inappropriate. Where neighborhoods are characterized by heavy traffic, larger facilities (i.e. schools, and industrial plants), or high parking turnover rates, higher lighting levels may be appropriate. Where high ambient or background lighting levels are adjacent to planned uses, such levels should be considered when evaluating light levels for new installations.
5. The lighting of gasoline stations and convenience stores, and some types of commercial establishments (e.g., automobile sales) have or may become lighting problems in the region. Such facilities are typically far more brightly illuminated than neighboring properties to attract attention and business. Glare is produced which hinders visibility for pedestrians and drivers on nearby highways. Lighting levels for these uses and similar uses should only be sufficient to facilitate the activities taking place in such locations. Lighting schemes that serve as advertising or to attract attention to these uses should be discouraged. Signs or other forms of advertising should be used for these purposes. Excessive pole height and bright lighting fixtures should be prohibited.
6. Illuminated signs that are excessively bright, causing glare and illuminating surrounding areas are inappropriate. Large illuminated signs can be disruptive to rural areas or historic villages and should be carefully evaluated and discouraged.

Goals, policies and recommendations continued on next page

Goals, Policies and Recommendations:

Outdoor Lighting Design and Management

Policies (continued)

7. Lighting designs should address the negative effects of sky-glow. Project designers should advocate for lighting plans that minimize light pollution without unduly compromising safety, security, or utility. Methods to be considered for minimizing sky-glow are:
 - a. Directing luminaries downward toward the ground;
 - b. Using low pressure sodium lamps;
 - c. Turning lights off after hours;
 - d. Reducing illumination levels; and
 - e. Prohibiting rays of light from being emitted above 90 degrees from luminaries.
8. Outdoor lighting schemes should employ generally available mitigating steps to improve its harmony with its surroundings taking into consideration, among other things, the type and density of land use presently in existence, the type of topography, and whether the area has scenic value.

Recommendations

1. Public interest in outdoor lighting issues and opportunities is growing. TRORC should assist local and state policymakers in evaluating lighting options. TRORC should consider sponsorship of educational workshops for planning commissions, design professionals, and others to acquaint them to the principles of good lighting design.
2. Towns interested in planning for outdoor lighting in their communities should consider using their Municipal Plans to establish goals and objectives for lighting. Additionally, consideration should be given to incorporating a lighting section into a town's Zoning Ordinance to cover lighting installations in all or parts of the Town.
3. TRORC staff should continue to work with the Vermont's public utilities and design professionals to evaluate lighting technologies and efficiencies.

