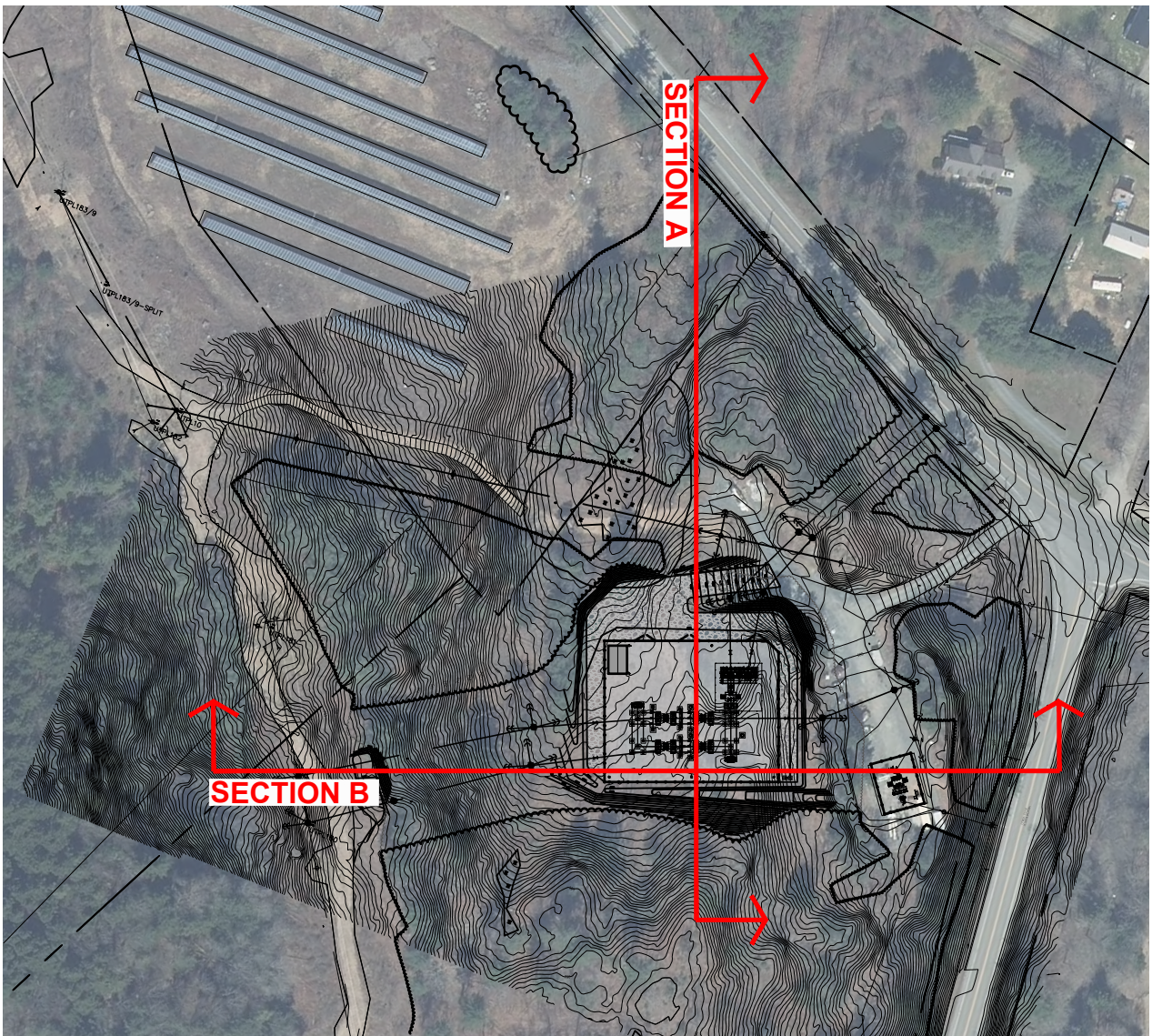
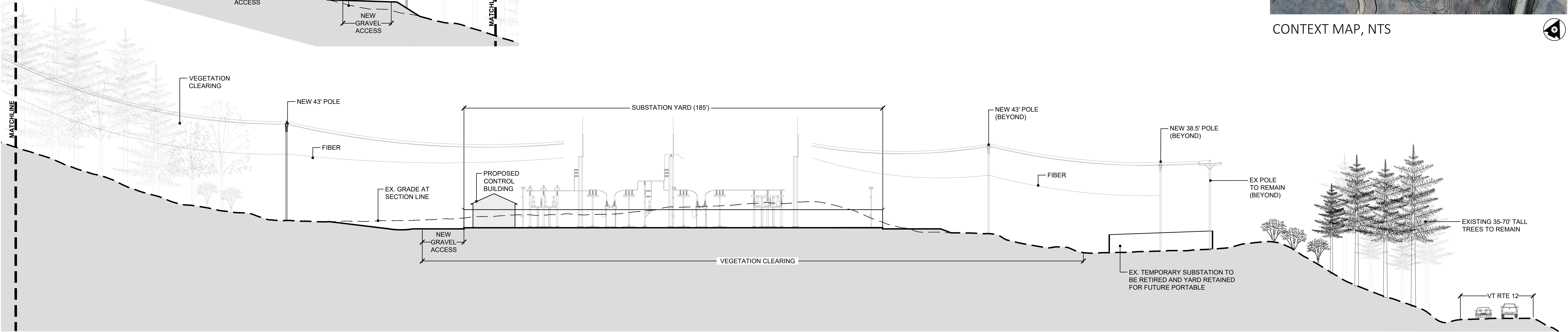
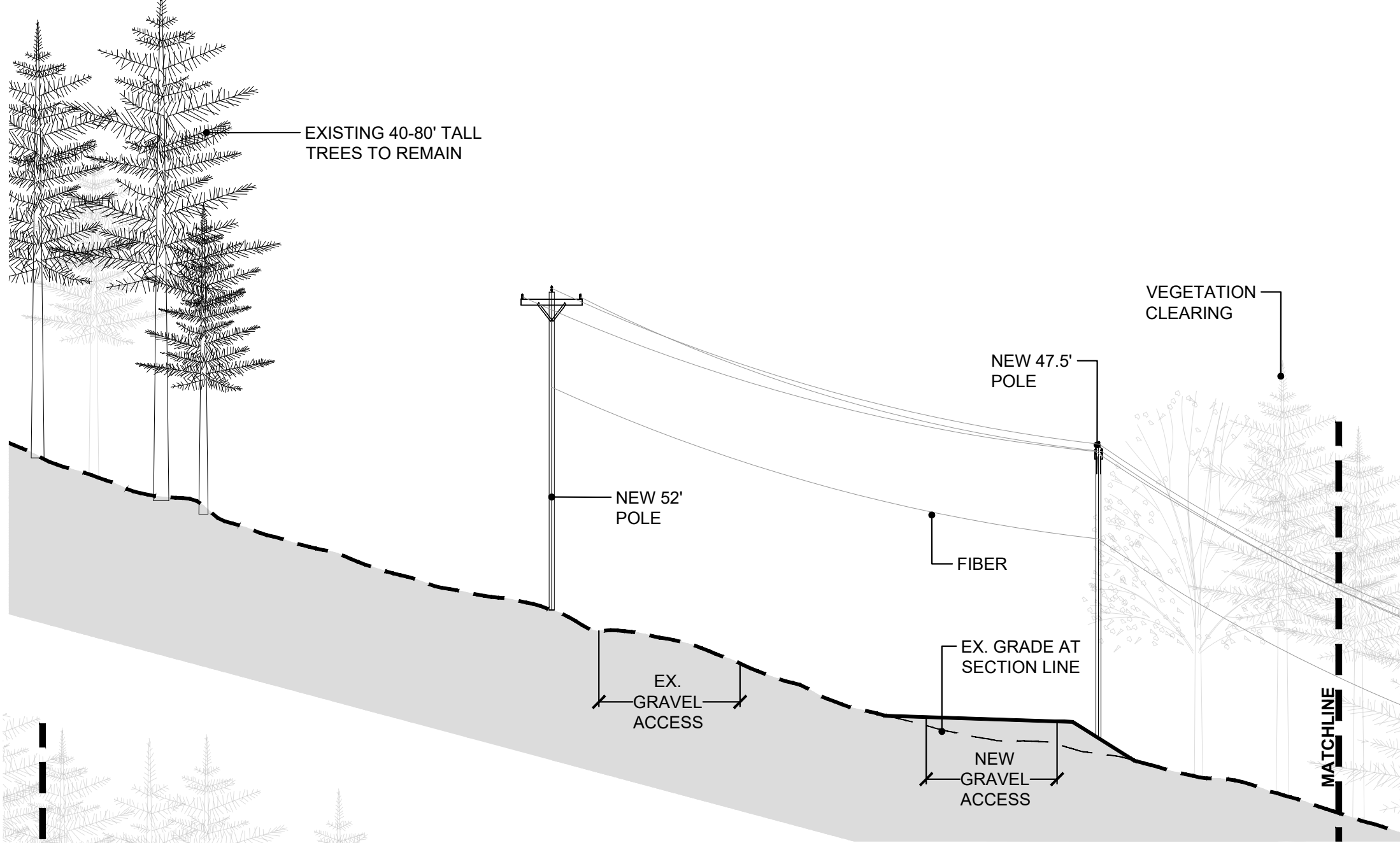


Exhibit GMP TOU-6 Part III of V

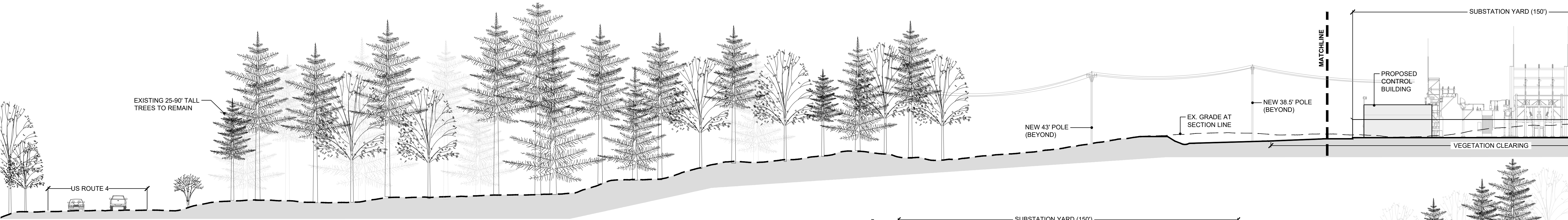
- NOTES:
- * POLE HEIGHTS SHOWN AS ABOVE GROUND LENGTH ("AGL")
 - * CONDUCTORS, FIBER AND TRANSFORMER SHOWN IN APPROXIMATE LOCATION/SIZES



CONTEXT MAP, NTS



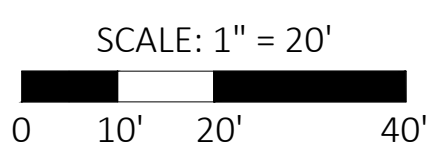
SECTION B: LOOKING NORTH
SCALE 1" = 20'



SECTION A: LOOKING EAST
SCALE 1" = 20'

	REVISION		DATE	

ISSUED FOR REVIEW
xx/xx/2026



DATE: AUGUST XX, 2026

REGIONAL PLAN



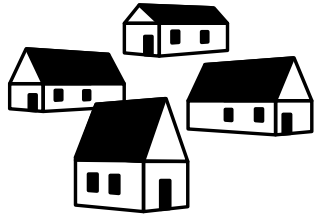
TRCRC

Adopted 2/26/25

APPENDIX D - REGIONAL AND
TOWN PLAN EXCERPTS



2025



Regional Growth Areas

Growth throughout the Region must be balanced with a respect for the traditional patterns of development that make our Region distinct (these patterns are supported by Vermont's planning goals) and the need to adapt to an ever-changing world. To sustain both rural and more developed core areas, major growth or investments must be channeled into existing settlement centers or development immediately adjacent to such centers.

Regional Growth Areas represent areas of concentrated mixed use at varying scales and with differing mixes of uses. These areas are either served by public facilities (such as sewer, water, and public transit) or are potential locations for future infrastructure investments that will encourage growth and vitality. Depending on their scale and location, these areas generally include a diverse mix of services, businesses, and housing opportunities for our citizens.

Acknowledging that Regional Growth Areas range from urban to rural, the Regional Plan differentiates these areas into the four subtypes mentioned above and detailed below.

Regional Center

Regional Centers are a region's largest urban areas, where development is highly concentrated with a diverse mix of uses. They are areas where public sewer and water utilities exist, transportation infrastructure is capable of handling significant volumes of commuting and commercial traffic, a public transportation system provides options, and there are intermodal opportunities present. In order to achieve the level of density appropriate for a Regional Center, buildings are often multi-story, with mixed uses – particularly in the core of the area. People use Regional Centers for their variety of employment and business opportunities, governmental and judicial functions, hospitals, schools, and cultural and civic activities. White River Junction is the only Regional Center in our Region. Our only State Designated Growth Centers and a Designated Downtown are included in this land use area.

Town Centers

Town Centers are less urban than Regional Centers but also contain a concentrated mix of uses at a high level of density. They are those areas where central public utilities for water and sewer are available and where there exists a central location for commercial activities, schools, and cultural and civic activities for the town and the surrounding communities. In our Region, Designated Downtowns, Designated Villages, and a Designated Growth Center are included in this land use area. Town Centers are found in Bethel, Bradford, Chelsea, Fairlee, Norwich, Randolph, Rochester, South Royalton, Wells River, Wilder, and Woodstock.

Village Settlements

Village Settlements are the most common Regional Growth Areas in the TRO Region. Village Settlements normally consist of a mix of uses at medium to high densities. Density in Village Settlements varies based on the availability of municipal water and sewer. Those Village Settlements that do not have water or sewer are prime candidates for future infrastructure investments. Unlike Regional Centers and Town Centers, Village Settlements are not regional markets or trade centers and typically serve a local clientele. The Region's Village Settlements are core areas in Barnard, Braintree, Bridgewater, East Corinth, East Randolph, East Thetford, East Topsham, Granville, Hancock, Hartford Village, Hartland Four Corners, Hartland Three Corners, Newbury, North Hartland, Pittsfield, Plymouth Union (Plymouth), Pond Village (Brookfield), Post Mills (Thetford), Quechee, Randolph Center, Royalton Village, Sharon, South Pomfret, South Strafford, South Woodstock, Stockbridge, Strafford, Taftsville, Thetford Center, Thetford Hill, Tunbridge, Tyson (Plymouth), Vershire, West Fairlee, and West Woodstock.

Hamlet Areas

Hamlet Areas were significantly more prevalent throughout the communities in the TRO Region in the past. Presently those Hamlets that remain consist of groupings of buildings that are generally residential in nature. Hamlets are significantly smaller in scale than Village Settlements. They historically have served as the location for single-family homes, with a few stores and businesses supported primarily by local residents. Hamlets



business parks with design guidelines to protect scenic values;

1. Provide open space for the conservation of wetlands, streams, steep slopes, other natural resources, and visual quality;
1. Limit or deny new curb cuts to maintain the carrying capacity of Route 66;
1. Provide space and opportunities for transitional/senior housing;
1. Provide for an improved park-and-ride commuter lot/Welcome Center; and
1. Consider land for an agricultural/cultural museum perhaps to be affiliated with other uses.

Further, the extensive study conducted by the community determined that retail development at the interchange was unsuitable for a combination of reasons, including traffic impacts on Route 66, visual sensitivity, and conflicts with downtown businesses. Moreover, standalone retail development at any scale or size was found to be incompatible with the community's values. However, there was one exception. Accessory uses of a retail nature were found acceptable.

Royalton Interchange (I-89, Exit 3)

Exit 3 on Interstate 89 in Royalton accesses Route 107, which runs in an east/west direction, connecting to Bethel and Stockbridge and Routes 100 and 14. Route 107 is classified as a minor arterial road. It is a heavily traveled road and forms part of a major transportation corridor between I-89 and Rutland and points west. Forecasts reveal that traffic volume will continue to grow over the next 20 years.

Following the completion of I-89 56 years ago, several parcels of land near the interchange area have been developed. Primarily these changes in land use have been from rural residential and agricultural uses to industrial or commercial uses, but still much of the area remains undeveloped, consisting of farm and forestland. Several areas contribute to highly scenic vistas, particularly from I-89 and Route 107. Due to its prominent location, it is likely that new development at Exit 3 will continue. Solid transportation planning, coupled with sound land use planning principles, can minimize land use and traffic conflicts that have plagued many other Interchange Areas.

In 1999, the Town of Royalton conducted an extensive planning project in which the Royalton Planning Commission found the following values to be important to the area:

1. Provide space for future business growth, but only when it doesn't detract from Royalton's two villages;
2. Promote new development when plans are carefully laid out for safe access onto Routes 14 and 107;
3. Protect sensitive resource and scenic areas and encourage good design for new projects; and
4. Preserve the carrying capacity of Route 107 as a minor arterial road.

Given these values and an analysis of development suitability, nine future land use designations were recommended and depicted on a map. These included areas for industry, service and office type uses, residences, agriculture, and limited development. Goals and recommendations were

listed to help guide the community on the highest and best uses for each sub-area. TRORC accepts the findings and conclusions contained in the *Exit 3 Planning and Development Study* (September 2000), which has since been incorporated into the Royalton Town Plan, as the planning policies developed by the Town of Royalton for this area.



Rural Areas

The vast majority of land in the Region lies outside any of the Regional Growth Areas identified in this Plan but is still not remote forest. These Rural Areas make up 51% of the Region and are where many of us live and most of our local food is grown, and they form the principal visual backdrop along most roads. While we each may have a picture in our minds of what "rural" is, for this plan "rural," and hence Rural Areas, means lands that consist of a low-density mixed pattern of land uses, primarily homes, interspersed with scattered small-scale businesses, resource-dependent or land-consumptive commercial operations, outdoor recreation, and natural resource uses. The land is predominantly covered by forest, active agricultural land, or fallow agricultural lands transitioning back to forest. Rural lands are largely remote and undeveloped, or developed enough to constitute an existing settlement. Development within these



Rural Areas has been largely constrained by on-site limitations, including soil composition, slope, and elevation; ease of access to highways; lot size minimums; and distance to community services.

Historically, a significant amount of the Region's growth over the past sixty years has taken place in the Rural Areas, primarily in the form of scattered residential development that has crept up hillsides, out into fields, and deeper into forests. As residents locate their homes farther from Regional Growth Areas, commercial businesses that serve those populations seek to locate closer to them, moving out of or away from traditional business centers. This pattern of growth in the Region is our version of sprawl and places land development pressures on Rural Areas, particularly in those communities that are nearest to major highways and serve larger populations.

Land-consumptive commercial uses are commercial operations that rely on large amounts of indoor or outdoor storage as the dominant use of space, and include sales lots and warehouses.

This development has brought new life back into many towns, but these land use changes have also gnawed away at rural landscapes despite local planning efforts and public investment strategies that give priority to new projects within defined growth areas. This incremental change is largely due to no regulation through Act 250 of small-

scale subdivisions, low regulation of residential development in those towns with zoning, and a general desire for "development" at the local level, as this is seen as helping a town in terms of tax revenue or increased vitality. This in no way means that all residential development in Rural Areas is bad, but such development comes with costs, too. New homes increase a town's tax base but the residents may require better road maintenance. Building on what were once farm fields offers farmers needed income but impairs the future of local farming. Higher property values increase a town's grand list but may also drive up taxes on current residents.

It is in the interest of the Region and in conformance with our towns' plans that scattered development not continue unabated so that the present land use features within Rural Areas can be maintained and remain dominant. State planning goals, to which the Regional Plan must be consistent, direct plans to "maintain the historic settlement pattern of compact village and urban centers separated by rural countryside... (and that) intensive residential development shall be encouraged primarily in areas related to community centers and that strip development along highways should be discouraged." Rural Areas in the Region can provide substantial amounts of new opportunities both to reuse existing structures and to locate new homes, home occupations, and small businesses. These lands often may be the cheapest land to put an affordable home on. But there are tradeoffs and the overall effect of unplanned growth in certain locations and at a certain scale in Rural Areas is in the process of transforming the landscape from

something recognizable as "rural" in Vermont into something that is not. Rural Areas are not simply suburbs waiting to be created; they are a valued land use to Vermonters in their own right, and can remain that way for a long time if we are careful in how we develop them.

Not all land within Rural Areas is similar, nor should it be treated the same when planning for development. Some land is steep, wet, prime agricultural soil, of special habitat value, adjacent

to waterways, or subject to flooding, and should largely remain undeveloped for these reasons. However, these aspects are very site specific and are dealt with on a policy basis elsewhere in this Plan. This section of the Plan addresses those uses desired for Rural Areas in general and that complement the more developed parts of the Region.

One of the main land uses in the Rural Areas is agriculture, either in cropland or in pasture. These open lands are part of the aesthetic appeal of the

Resource-based commercial uses are such things as sawmills, quarries, and sandputs, outdoor recreation, nurseries, and agricultural product processing. These are dependent on resources at the site and may include retail of products produced on site.



Region, underlie an agrarian culture, and form the basis for a significant part of our economy. Forestry is another important use, though most larger forests are in the Forest-Based Resource Area. Agriculture and forestry and the land they depend on are addressed both in this chapter and in the Working Landscape chapter.

Regional land use policy elsewhere in this Plan focuses most business uses within or close to Regional Growth Areas. Rural Areas, however, can accommodate certain non-residential uses in ways that serve to maintain the vitality of more developed areas and that do not unduly compromise one of the principal objectives for these Areas—to retain rural character. For example, the Rural Areas are where many of the Region’s homes are, so naturally many home occupations are found there as well. Home occupations are allowed by right in local regulations in Vermont anywhere homes are allowed and are a way for people to earn a living with minimal land use impact. They must use less of the building than the home uses and can have a variety of small commercial operations.

Home enterprises are typically larger operations that are still on a residential lot but are allowed in many town zoning bylaws with some limitations on the number of people that can work there and on impacts such as traffic. Contractor’s yards are a common home enterprise. With appropriate review, Rural Areas can provide these land uses a good location.

Rural Areas have many older structures such as large farmhouses or barns that lend themselves

to adaptive reuses that can both preserve these visual assets and provide employment. Inns, small industrial operations, and multi-family dwellings are examples of uses that can keep these structures from becoming obsolete while not creating a major visual change to the rural landscape.

While commercial enterprises in the Rural Areas are smaller and scattered, there are two somewhat intensive commercial uses that make sense to locate in Rural Areas. These are either based on resources found there or are land-consumptive commercial uses. Resource-based commercial uses provide economic benefits and jobs that support the rural landscape, and they are uses that would largely detract from developed Regional Growth Areas if located within them. Such uses have a traditional rural role in Rural Areas.

Commercial land-consumptive uses that are not dependent on natural resources do not make the best use of the limited amount of land in Regional Growth Areas that have sewer and/or public water supply. Locating these immediately adjacent (within a quarter mile) to Regional Growth Areas along major roads can serve to protect the desired aspects of both rural and more urbanized areas.



Forest-Based Resource Areas

The lands within the Forest-Based Resource Areas—primarily large blocks of unfragmented forest that are needed to sustain a forestry industry

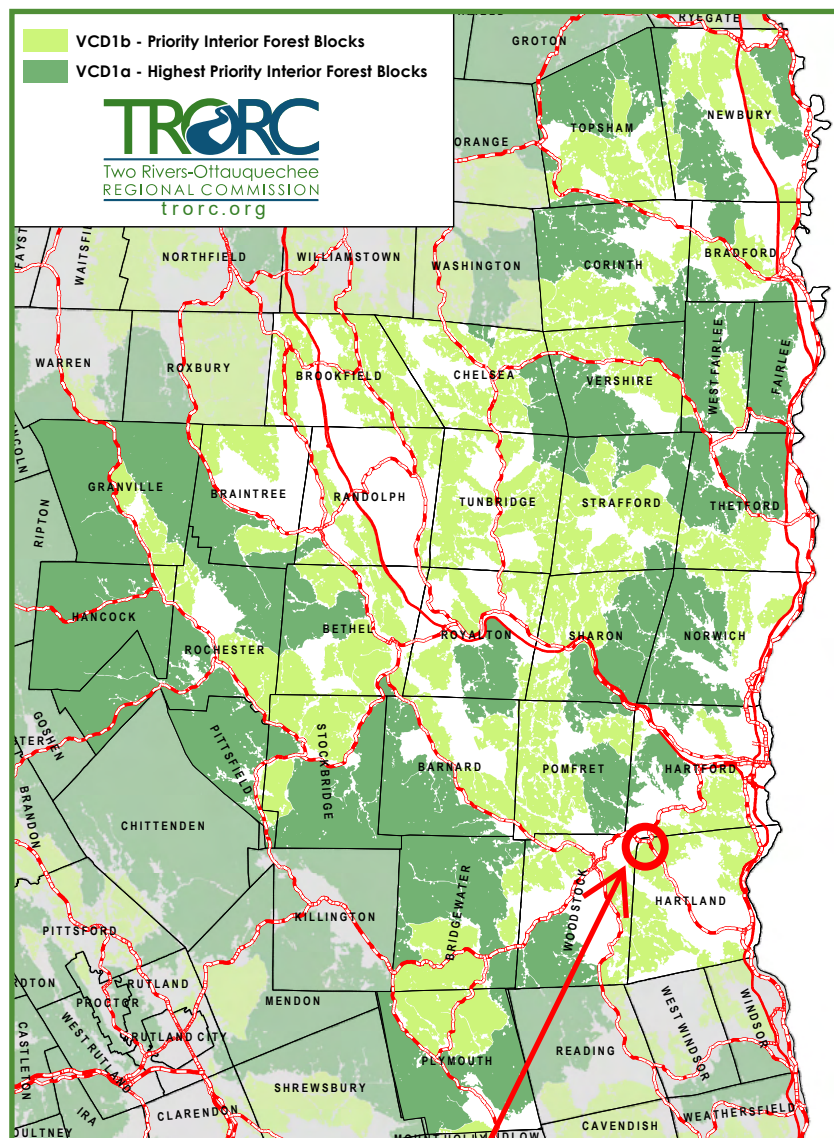
and areas that contain critical wildlife habitat and allow safe wildlife movement—provide the Region with important services that cannot be replaced on other lands. Land with these characteristics is shrinking in both the State and the Region. The health of many natural communities and wildlife depend on these large, uninterrupted areas of forestland, commonly referred to as “forest blocks,” and these must be connected to each other through wildlife corridors.

The main threats to such areas and their functions are fragmentation and parcelization. Forest fragmentation is the division or conversion of forest blocks through the clearing of land, building of structures, and other activities associated with development (excluding recreational trails). Even the seemingly simple act of installing roads affects wildlife movement and increases invasive plants and pests. Development that causes forest fragmentation creates barriers which limit species movement over the landscape, interrupts ecological processes, and impacts genetic diversity. Parcelization, which is part of fragmentation, is the subdividing of forest parcels to smaller lots but does not necessarily involve further development. Parcelization makes continuing to manage forests for forestry or conservation more difficult or even impossible.

Both fragmentation and parcelization will impact the important functions we now enjoy from the large forest blocks in these areas, but unless lands are bought outright for conservation or have easements on them, some development is likely. How this development, from simple subdivision into lots to subsequent construction of roads and

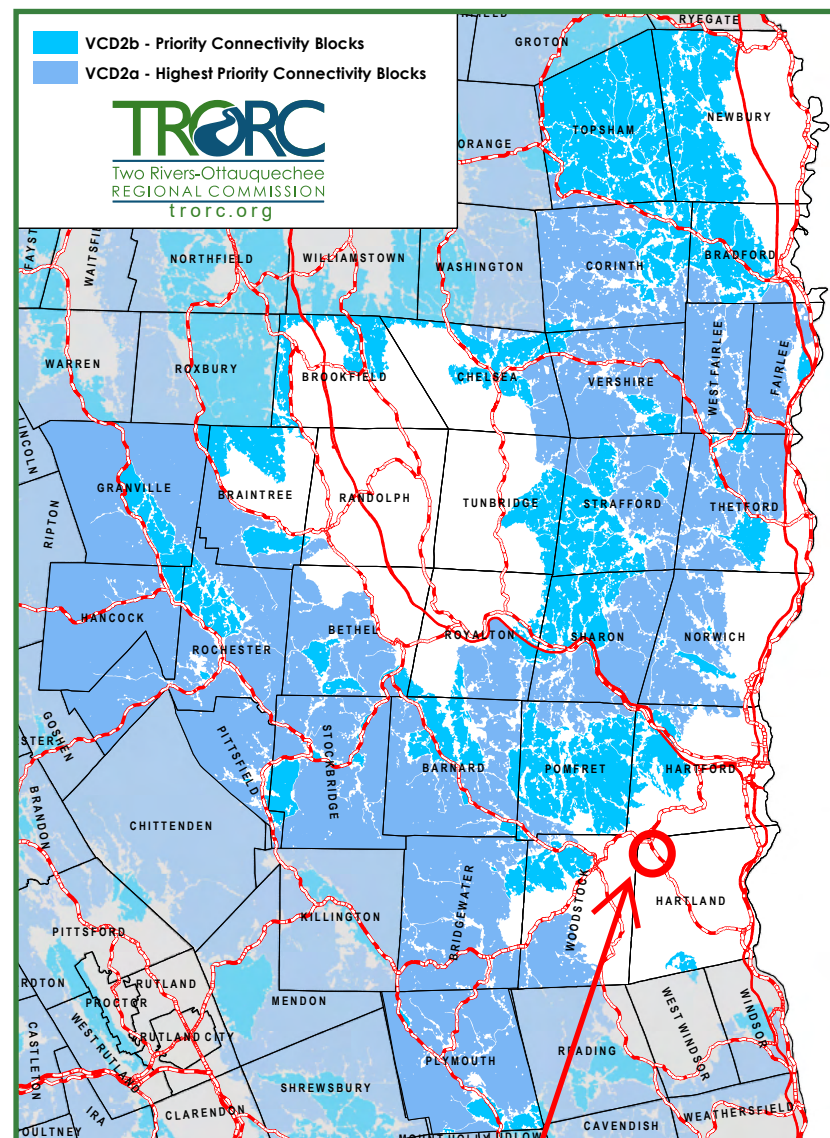


Figure 3-2: Highest Priority and Priority Interior Forest Blocks in the TRO Region



Approximate
Project Location

Figure 3-3: Highest Priority and Priority Connectivity Blocks in the TRO Region



Approximate
Project Location



Goals and Policies: **Overall Land Use**

Goals

The land use goals within this section represent the foundation of the planning and development for the Region. These goals are intended to be applied throughout the Region.

1. Development patterns and their related transportation systems promote public health and reduce energy use and greenhouse gas emissions.
2. Energy-efficient and affordable housing choices are expanded.
3. Land use planning and regulation maintains our quality of life, environment, and economy.
4. Intensive development occurs only where adequate public services and facilities are currently available or planned.
5. The health of residents is improved by investing in clean water, soil, and air and safe and walkable neighborhoods.
6. The patterns of development in the TRO Region remain consistent and compatible with the goals of VSA Title 24, Chapter 117, §4302.

Policies

The land use policies apply throughout the Region. Subsequent sections on individual types of land use areas have policies specific to each of them.

1. Any public investment in public and private housing for the elderly, disabled, and low- or moderate-income families shall be directed into Regional Centers, Town Centers, and Village Settlements, or areas within one mile of these along state highways and transit routes, and away from unsettled rural areas where no services exist.
2. Principal retail establishments must be located only in Regional Growth Areas to minimize the blighting effects of sprawl and strip development along major highways, to protect the vitality of our villages and downtowns, and to maintain rural character.
3. Development of federal or state governmental offices distant from and outside Regional Growth Areas contributes to increased traffic, scattered development, and costly public services. Such a pattern of development is incompatible with the goals and policies of this Plan.

Policies: **Regional Centers**

Policies

1. Regional Centers should support a mixture of single family, two-family, and multi-family housing and should have the highest densities in the Region.
2. Commercial land uses, services, offices, wholesale business, industry, transport facilities, and community facilities and programs that serve regional needs and markets shall be located in Regional Centers.
3. Intense growth in Regional Centers is appropriate when a complete complement of public services such as water, sewer, and highways are available. To accommodate additional development, continued maintenance or expansion of such facilities must occur.
4. Local capital planning programs and public investment strategies must encourage renovation of existing buildings and in-filling within Regional Centers.
5. Retail establishments that provide goods and services to a regional clientele must be located within or immediately adjacent to Regional Centers and Town Centers to ensure that the vitality of these economic centers is maintained.



Policies: Village Settlements

Policies

1. Village Settlements should support a mixture of single-family, two-family, and multi-family structures at the highest densities possible given existing sewer and water capacity. Village Settlements that have neither public water nor sewer should plan for the maximum densities that can be supported by the soils present, in order to avoid ground and surface water contamination while also keeping the area denser than surrounding rural areas.
2. Conversion of larger older homes (particularly those with historic merit) to newer, more economical uses, such as offices and multi-unit housing, is consistent with this Plan. See the Historic Resources section for more information.
3. Principal retail establishments, services, tourist businesses, lodging, public facilities, and business and industrial enterprises of a scale and design that fit the context of the area are appropriate for this area.
4. Local capital planning programs and public investment strategies must support renovation of existing buildings and in-filling within Village Settlement Areas.
5. New development must not place undue burdens on municipal or regional facilities, utilities, and services, including transportation systems.
6. New development shall be planned to be reasonably compatible with existing development, preserve buildings of historic, architectural, or engineering significance, and not unduly impact the character of the area.
7. Long-range planning for the provision of public services in these areas to accommodate future growth is encouraged.
8. Planned and existing services should be coordinated so that the future expansion of services can be more accurately evaluated.
9. Highway investments within Village Settlements must include pedestrian circulation, traffic calming, and streetscaping.

Policies: Hamlet Areas

Policies

1. The density of development in Hamlet Areas must reflect the existing settlement patterns, physical land capability, and availability of utilities for expansion. Hamlet Areas should support primarily single- and two-family homes and residential-scale small business enterprises (including principal retail establishments) that fit the context of the immediate area and are meant primarily to serve local markets.
2. Major traffic thoroughfares through Hamlet Areas must be planned with traffic calming elements.
3. New buildings should maximize allowable density. Where unusual natural features, soil limitations, or special resources (including high value agriculture land) are identified, use of cluster development concepts is encouraged to protect such resources from unnecessary development.
4. Existing postal facilities, and similar governmental offices, must be retained in Hamlet Areas and not be relocated into Rural Areas.



Policies: **Randolph Interchange**

Policies (continued)

3. Any project planned for the interchange must employ design and construction standards that will ensure that development does not unduly impair the scenic resources of the area.
4. New development should be sited in areas that are not highly scenic, visible, or environmentally sensitive.
5. Future development at the interchange that requires improvements to Route 66, including traffic signals, turning lanes, or roundabouts, must be carefully evaluated. These should only be authorized where it is determined such a privately funded investment will not unreasonably endanger or interfere with the function, efficiency, safety, or use of this route.
6. New development must coordinate with existing development on shared access or retrofit access point locations to improve safety.
7. The types of land development appropriate for this interchange include offices, light industrial, residential, appropriately scaled traveler-oriented uses, and other similar uses that are not intended to draw on regional populations.
8. Principal retail establishments must be located in Regional Growth Areas to minimize the blighting effects of sprawl and strip development along major highways, to protect the vitality of our villages and downtowns, and to maintain rural character.

Policies: **Royalton Interchange**

Policies

1. The types of land development appropriate for this interchange include offices, light industrial, residential, appropriately scaled traveler-oriented uses, and other similar uses that are not intended to draw on regional populations.
2. Principal retail establishments must be located in Regional Growth Areas to minimize the blighting effects of sprawl and strip development along major highways, to protect the vitality of our villages and downtowns, and to maintain rural character.

Goals, Policies, and Recommendations: **Rural Areas**

Goals

1. Agriculture continues to form an important visual, economic, and cultural part of the landscape.
2. Rural lands provide a place for people's homes and small businesses.
3. Development is at a scale and type that conforms to historical patterns and does not detract from Regional Growth Areas.



Goals, Policies, and Recommendations: **Rural Areas**

Policies

1. Development shall be at a scale that is less dense than adjacent Regional Growth Areas.
2. Except along paved roads, development density greater than one principal structure per two acres is not appropriate to maintain rural character, but lot sizes are encouraged to be smaller than this in subdivisions so as to preserve a larger portion of the remaining lot as undeveloped and still meet overall density goals.
3. New freestanding, individual multi-unit residential buildings containing five units or less per structure are appropriate along Class 3 or better roads in order to stay in keeping with rural scale, but larger ones are not, excepting inns, outdoor recreation, and other lodging. However, a development may contain more than one such multi-unit building. Individual buildings with more than five residential units each are not appropriate in this Area. This unit limit does not apply to adaptive reuses, or to rooms in senior care facilities, outdoor recreation, or lodging establishments.
4. Adaptive reuses, such as small light industrial operations or multiple housing units, are encouraged in older existing large structures as towns desire, but care must be taken to not lead to development too intensive for the rural character.
5. Development of resource-based commercial uses is appropriate in these areas, with safeguards to protect neighbors from undue adverse impacts from noise, dust, and other nuisances (see also Section H in the Natural Resources chapter for more on extraction policies).
6. In Rural Areas that abut state highways and that are no greater than a quarter mile to Regional Growth Areas, land-consumptive uses may be appropriate, provided that they do not have an adverse impact on the character of the adjacent Regional Growth Area and that they mitigate the impacts of sprawl and strip development.
7. Projects subject to Act 250 must be planned and sited to satisfy the following:
 - a. Utilize compact development design and locate new development or lots near or adjacent to existing road infrastructure and away from productive fields or forests to conserve the maximum feasible amount of usable farm, pasture land, or managed woodland;
 - b. Locate non-agricultural buildings next to or within the forest edge (if any), instead of in open fields, to enable new construction to be screened by natural landscape features;
 - c. Minimize buildings, utilities, or structures blocking or interrupting scenic vistas as viewed from a public highway;
 - d. Take reasonable steps to protect historic features, wetlands, stream buffers, forest blocks, wildlife crossing areas, necessary wildlife habitat, and habitat connectors; and
 - e. Give consideration to burying power and phone lines, if cost effective, when new roads are being constructed.
8. Use of planned unit developments or conservation subdivision design schemes is strongly encouraged as a means of providing rural development that concentrates development on part of a parcel in order to preserve larger lots that are more useful for farming, forestry, or wildlife habitat. Towns should consider incentives such as density bonuses.
9. Non-residential uses, including small service businesses, small professional offices, and inns are acceptable land uses for Rural Areas provided that such uses are located near existing transportation infrastructure; planned at a residential scale and form; are not primary or dominant uses in an area; would not unduly conflict with existing or planned residential, forestry, or agricultural uses; and do not unduly affect rural character.
10. TRORC supports the right of a resident to use a minor portion of a dwelling unit for a home occupation, which is customary in Rural Areas, provided it does not create a nuisance or have an undue adverse effect on the values noted in this Plan as being important to sustaining the character of Rural Areas.
11. Major retail enterprises or service centers that draw principally on regional market shares (including factory outlets, large grocery stores, fast-food establishments, and shopping malls) shall not be permitted in Rural Areas.



Goals, Policies, and Recommendations: **Flood Resilience**

Goals

1. The citizens, property, and economy of the TRO Region and the quality of the Region's rivers as natural and recreational resources are protected by using sound planning practices to address flood risks.
2. The Region is able to recover from flooding quickly and in a manner that improves flood resilience.
3. The creation of impervious surfaces and development in wetlands or upland forests is lessened, and where it does occur, is done in a manner that does not worsen flooding.

Policies

1. All new fill and construction of buildings in FEMA-mapped Special Flood Hazard Areas increases flood risk and is discouraged, and at a minimum must comply with the Association of State Floodplain Managers' No Adverse Impact policy.
2. All new buildings, other than accessory structures, in FEMA-mapped flood areas must have the lowest floor elevated or floodproofed at least one foot above base flood elevation.
3. Natural areas, non-structural outdoor recreational, and agricultural uses are the preferred land uses within river corridor areas due to the dangerous erosive nature of these areas. Commercial, industrial, and residential uses within river corridors are strongly discouraged outside of village and town centers.
4. New buildings within FEMA-mapped floodways shall be prohibited.
5. In order to lessen the conflict between roads and streams, towns and the State should consider moving or abandoning roads when there are more cost-effective solutions or other routes.
6. The State and municipalities should only rebuild/install culverts and bridges that are designed at least to VTrans' Hydraulics Manual and ANR's Stream Alteration Standards, and are encouraged to adopt road and bridge standards to the 50 or 100-year storm level for identified critical transportation routes.
7. Critical facilities such as emergency services, wastewater treatment plants, power substations, and municipal buildings shall not be built in Special Flood Hazard Areas unless floodproofed or elevated to at least 2 feet above the base flood elevation and designed to withstand erosion risk, and they must have dry access above the base flood.
8. To reduce flood flows and be more protective of existing development, the current one-acre threshold in Vermont's Stormwater Management Rule should be reduced to one-half acre.
9. Rock rip-rap and retaining walls should only be used to the extent necessary and when bioengineering techniques may not be adequate to prevent significant loss of land or property.
10. Upland forests and watersheds should be maintained predominately in forest use to ensure high-quality valley streams and to ensure that flood flows are absorbed.
11. Outside of areas of existing compact development, new development must preserve vegetated riparian buffer zones that are consistent with state riparian buffer guidelines.
12. All wetlands that provide flood storage functions shall remain undeveloped or have compensatory storage constructed so as to achieve no net loss of such wetland function.
13. In the long term, restoration and enhancement of additional wetlands should be pursued in order to improve the Region's flood resilience.



B. Regional Transportation Characteristics

Highways

The Region contains several key transportation corridors, including Interstates 89 and 91 as well as several state routes that are utilized for statewide trucking. Of the state and federal highways in the Region, Interstates 89 and 91 carry the bulk of traffic (over 10,000 vehicles a day), followed by U.S. Route 4 and U.S. Route 5 (roughly 5,000 to 10,000 vehicles a day). The Region rarely encounters traffic congestion, even during peak hours. Population growth may exacerbate existing congestion along U.S. Route 5 in Hartford, VT-10A in Norwich, and the Route 4 corridor during peak hours.

Although the [National Scenic Byways](#)¹ program is no longer funded, there remains three designated [Scenic Byways in the Region](#)²: the Connecticut River Scenic Byway, the Crossroad of Vermont (Route 4) Byway, and the Scenic Route 100 Byway. There is also one Vermont Scenic Road designated in the Region, the Route 125 Middlebury Gap Road. The Scenic Road designation places strict development restrictions on the road corridor to preserve the scenic nature of the road.

The Vermont Agency of Transportation ([VTrans](#)) [collects and publishes State Highway pavement conditions](#) in our Region. VTrans prioritizes paving based on their asset management system which looks at implementing the right paving treatment at the right time of the pavement lifecycle.

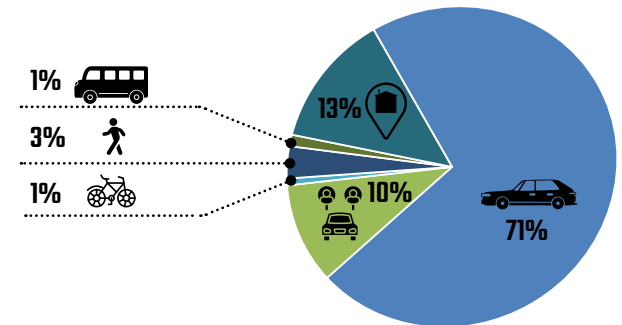
In addition to the state system, our communities

have extensive road networks of their own (see the Regional Transportation Map). The bulk of residential development in our towns is located outside of village areas on rural roads, which increases the need for well-connected roads and road improvements. As more people move into towns locating on Class 3 and Class 4 roads, additional traffic on these roads can lead to additional maintenance or costly upgrades to widen the road or make it a passable school bus route. (Towns are not responsible for maintaining Class 4 roads, only bridges and culverts.) Highway budgets are typically the second largest local expenditure after school budgets, averaging several thousand dollars per mile to plow and maintain, and typically are still insufficient for maintaining the level of service expected by residents.

In 2021, vehicles in Windsor and Orange Counties travelled [more than 1259 million miles](#)³, with almost 50 million gallons of gasoline consumed (estimate derived from EPA's evaluation of model 2020 vehicles' Average Fuel Economy, which is [25.4 Miles per Gallon \(mpg\)](#)⁴). Much of the travel in our Region is done using our personal vehicles. While this is convenient for many, it can be expensive, time consuming and contribute to air pollution. Most commuters in Orange and Windsor Counties drive to work alone while over ten percent carpool.

The Regional Plan notes that rural sprawl continues to expand, and commercial development has taken the form of automobile-dependent strip development along highways. These land use decisions limit people's transportation options while increasing their transportation costs, both in

Figure 4-1: Travel to Work Mode in Orange and Windsor Counties



Source: U.S. Census Bureau, 2022 American Community Survey 5-Year Estimates

terms of direct costs (e.g., gas and ownership costs) and opportunity costs (e.g., time spent driving instead of addressing other priorities like family needs). Ultimately, this translates into a higher overall cost of living for households.

TRORC's longstanding priorities are maintaining the existing network and diversifying modes of transportation by expanding bicycling, walking, and transit.

Walking and Biking

Acknowledging the importance of varying transportation choices for people, the Vermont Legislature passed a Complete Streets law in 2011. This bill requires that all users be considered in the planning, design, construction, and maintenance of our roadway system. To learn more about Complete



C. Archeological Resources

Background

Archeological evidence found throughout the State depicts a history of human occupation that dates back 9,000 years. Most Native American 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.

The archeological record provides the only physical remnants of pre-European human occupation. In addition, the record can provide information about past environments, climate, and landscape changes. Although only a few archeological sites in the Region have been designated on the Vermont Archeological Inventory, there are many areas whose topography and proximity to natural resources indicate a likelihood of pre-European habitation. Most prehistoric sites are located within 300 to 500 feet of 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 requires that a development “will not have an undue adverse effect” on historic sites and sites of archeological importance; however, Act 250 only covers larger developments, and many archeological sites may be located on private land. For areas of potential archeological significance, private landowners need to know how best to preserve important resources on their land. Since many archeological resources are located in areas such as river corridors and prime agricultural land, preservation and conscientious management will

serve multiple purposes.

Public awareness, appreciation, and understanding of the Region’s archeological resources is limited. This is due partly to incomplete documentation of the resources, and partly to a narrow perception of what constitutes archeological 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 archeological resources invariably means more restriction on the use of their property without much benefit.

D. Scenic Resources

Background

In Vermont, the economic value of scenic resources to tourism cannot be overstated. 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, and 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. The public’s commitment to the preservation of our visual resources can be traced to the late 1960s with the passage of Vermont’s anti-billboard legislation. All municipal plans prepared and adopted by member towns in the Region consistently stress the goal of maintenance of rural character.



Bradford Academy | © John Knox

Patterns for Development: A Community Standard

The inherent beauty of the Region is tied to the visual relationship between buildings, the working landscape, and mountains and river valleys. Over the past fifty years, development patterns have emerged that propagate highway strip development. Certain areas immediately adjacent to major highways are examples of development sprawl. In some instances, these areas adversely affect the value of scenic resources for travelers. Such a land use pattern will serve, amongst other factors, to destroy the transition between town village centers and the countryside.

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 that can permanently alter or pressure that landscape.



Determining scenic significance of resources 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.

Prominent Scenic Landscapes

The following areas are likely to be areas of scenic significance:

1. Shorelands immediate to public lakes, rivers, or ponds;
2. Areas immediately adjacent to scenic corridors;
3. Prominent ridgelines, mountaintops, or excessively steep slopes that can be readily viewed from public corridors;
4. Exceptional agricultural and historic areas;
5. Areas within or immediately adjacent to natural areas (i.e., wetlands) designated by the State; and
6. Areas of high scenic quality that are publicly recognized as exceptionally unique or are noted examples of the dominant characteristics of an area in the Region.

7. Examples of prominent scenic areas within the TRO Region include designated byways.

- Connecticut River Byway (a National Scenic Byway): Route 5, Hartland to Newbury
- Crossroads of Vermont Byway: Route 4, Bridgewater to Hartford
- Scenic Route 100 Byway: Plymouth to Granville

E. Outdoor Lighting Design and Management

Issues and Opportunities

Increased development in recent decades brings a corresponding increase in the use of outdoor lighting in our Region. However, such lighting does not need to lead to adverse impacts. Improper lighting contributes to light pollution, limiting our ability to view the night landscape, and has adverse impact on the character of our historic villages.

In May 1996, the Chittenden County Regional Planning Commission published [Outdoor Lighting Manual for Vermont Municipalities](#)¹⁴. The

suggestions and recommendations contained in the Manual form the basis of many of the design principles and issues reflected in this section of the Plan.

Choosing 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.

Using a large quantity of light does not guarantee good visibility. Overlighting can cause problems that hinder good vision. 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. Sky glow, or reflected light from surfaces, is visible in the night sky over towns or large commercial or industrial complexes and is a form of light pollution that contributes to a loss of our ability to see stars.



Cover of Outdoor Lighting Manual for Vermont Municipalities (1996) | Source: Chittenden County Regional Commission



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

Goals

1. Archeological resources within the Region are preserved, and an appreciation of their value as a vital aspect of the Region's historic and cultural past is promoted.
2. Comprehensive planning and land use development are better integrated with archeological resource protection at the federal, state, regional, and local levels.

Policies

1. Existing archeological resources must be protected where public interest is demonstrated. No land development should be permitted when it results in unnecessary loss of an archeological resource at the state or federal level.
2. Within archeologically 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 have undue adverse impacts on these resources must be discouraged or redesigned to mitigate the impact. Project planners are encouraged to contact the state archeologist for further information.
3. To preserve significant archeological 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 that serve multiple preservation purposes.

Recommendations

1. To increase public awareness of archeological resources, TRORC encourages archeologists, local and regional groups, towns, and landowners to organize educational programs focused on Vermont's history. 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 interested groups are encouraged to incorporate an archeological plan for their community in their town plan. Such a plan could be an important step in planning future development in identified areas.

Goal, Policies, and Recommendation: **Scenic Resources**

Goal

1. The natural and scenic resources of the Region are protected and preserved.

Policies

1. Where development is proposed in areas of scenic value (examples listed under "Prominent Scenic Landscapes"), design plans must:
 - a. Maintain the prominent natural feature of the developed area;



Goal, Policies, and Recommendation: **Scenic Resources**

Policies (continued)

- 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; and
 - e. Reflect traditional settlement patterns.
- 2. Projects must minimize the adverse effects of strip development on existing scenic resources through the following design principles:
 - a. Integrate landscaping into parking areas;
 - b. Encourage compact and densely developed projects;
 - c. Place street trees as buffers between traffic arteries and internal drives;
 - d. Use unobtrusive signage;
 - e. Vary the pattern, number, size, and location of structures within the site;
 - f. Employ screening plans for visually objectionable features on the site; and
 - g. Minimize access roads or curb cuts onto public highways and use of common access drives.
- 3. Roads with scenic and cultural values, and determined to be of local or state significance, must 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 that unnecessarily destroy the special characteristics of such roadways are not consistent with this Plan.

Recommendation

- 1. TRORC should employ a process for evaluating impacts to scenic resources in the development proposals.

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

Goals

- 1. Lighting provides for safety and convenience in ways that enhances qualities of streets, architecture, and public spaces, while preserving dark skies and avoiding light pollution.
- 2. Outdoor lighting systems designed to conserve energy and minimize life cycle costs are used.





09 | Utilities, Facilities, and Services

Bridgewater Fire Station | © Kevin Geiger, TRORC

A. Background

The communities in our Region depend on a system of public, nonprofit, and private utilities, facilities, and services. These are needed to maintain the health and welfare of our citizens, as well as support a sound economy.

While TRORC does not have a direct role in maintaining these systems, it does have the ability to provide municipalities with guidance and technical assistance to achieve regional and local planning goals. Compact land use patterns generally improve the efficiency of wastewater and water supply systems, roads,

transit, and emergency services. Conversely, sprawling development leads to an expansion of infrastructure and services to new areas and is generally inefficient. Nearly all services and facilities benefit from greater density and intensity of land development within a given area.

Achieving Vermont's land use goal, ["to maintain the historic settlement pattern of compact village and urban centers separated by rural countryside"](#)¹ is nearly impossible without public sewer, or at least water. Continued increases in density and development in our villages is unsustainable without water and wastewater facilities.

Long-range planning for such infrastructure investments and their maintenance, as well as town buildings, roads, and emergency resources is essential to avoid jumps in annual tax rates. Therefore, state statutes enable communities to create a [Capital Improvement Plan \(CIP\)](#)² for the purposes of planning and investing in long-range capital facilities. From a regional standpoint, investments in municipal infrastructure must be made based on the population they will serve and on the most pressing needs. For communities with sufficient existing infrastructure and stable population numbers, capacity is not a significant issue, therefore priority for future investments is



Goals and Policies: **Overall Utilities, Facilities, and Services**

Goals

1. The maintenance, expansion, or construction of new facilities and utilities is financially sustainable for governments and taxpayers.
2. Investments in utilities, facilities, and recreation enhance the desired pattern of development which is compact village and urban centers surrounded by open countryside.

Policies

1. Public investments in governmental and public utility facilities services should support existing and future development.
2. The scale, type, and design of major public utilities and facilities shall be consistent with the future land use settlement patterns recommended in this Plan and relevant municipal plans.
3. Public investments in municipal, regional, and state facilities should be located within existing or planned Regional Growth, Industrial, and Mixed-Use Areas.
4. Public facilities such as solid waste disposal facilities, correctional facilities, and wastewater treatment facilities shall be situated in an area where they best serve their purpose while minimizing negative impacts on the surrounding area.
5. TRORC supports the acquisition of future public and quasi-public utility sites, properties, or interests, when such acquisitions advance the goals and policies of this Plan and relevant local plans.
6. The construction of primary educational facilities, health-care facilities, emergency facilities, post offices, libraries, and other public facilities should occur in or adjacent to existing or planned Regional Growth and Mixed-Use Areas, so as to maximize their convenience to people (either locating facilities near transit stops or walking distance), to minimize additional infrastructure improvement costs, and to contribute to the vitality of communities.

Goals, Policies, and Recommendations: **Water and Wastewater**

Goals

1. Municipal water and wastewater systems are secure, financially sustainable, well-maintained and energy efficient.
2. Municipal water supply areas maintain high quality of drinking water for public health.

Policies

1. Municipalities and private utilities should create capital budgets and reserve accounts for utilities and facilities management and operations.



Goal, Policies, and Recommendations: **Emergency Management**

Goal

1. There is minimal loss of life, physical and emotional injury, financial loss, and property damage resulting from all hazards.

Policies

1. Response plans and capacities must reflect an all-hazards approach and be coordinated between towns, the State, and federal agencies.
2. Mitigation must be part of all recovery efforts in order to increase resilience.
3. New or rebuilt development shall not increase disaster risk and must take reasonable steps to reduce risk.
4. Mitigation actions shall:
 - a. Seek to avoid impacts of a hazard first, then reduce impacts that cannot be reasonably avoided;
 - b. Recognize the connections between land use, development siting, drainage systems, building standards, and road design and maintenance and the effects of disasters on the Region;
 - c. Be mindful of the natural and human resources of the area;
 - d. Be part of a larger systematic effort at disaster reduction; and
 - e. Seek to permanently avoid damages.
5. Additional telecommunications towers must be built to increase radio and cellular coverage for emergency responders, including FirstNet.
6. Critical facilities, including emergency service buildings, substations, medical facilities, town offices, and town and state garages, must be constructed to be disaster resistant and able to withstand expected 100-year storm events with minimal impacts.

Recommendations

1. Agencies or organizations expected to respond in a unified manner should train and exercise together.
2. State and federal governments must continue funding and operation of warning systems, including the National Weather Service's Emergency Alert System, NOAA weather radio, and USGS river and precipitation gauges.
3. Towns should pursue the use of capital programs and reserve accounts to properly budget for emergency vehicles and other large capital costs, as well as coordinate and share services to achieve overall efficiencies.
4. TRORC will continue to work with all communities to annually update Local Emergency Management Plans, ensuring that these plans take into account the varied needs of people with disabilities, pets, and those without access to transportation.
5. TRORC will continue to work with all communities on hazard mitigation efforts, including updating mitigation plans, enhancing road and bridge standards for resiliency, and addressing flood resilience in Town Plans.



2. **LOS B**—Represents reasonably unimpeded traffic flow operations at average travel speeds. The ability to maneuver within the traffic stream is only slightly restricted and stopped delays are not bothersome. Drivers are not generally subjected to appreciable tensions.
3. **LOS C**—Represents stable traffic flow operations. However, ability to maneuver and change lanes may be more restricted than in LOS B, and longer queues and/or adverse signal coordination may contribute to lower average travel speeds. Motorists will experience an appreciable tension while driving.
4. **LOS D**—Borders on a range in which small increases in traffic flow may cause substantial increases in approach delay and, hence, decreases in speed. This may be due to adverse signal progression, inappropriate signal timing, high volumes, or some combinations of these.
5. **LOS E**—This represents traffic flow characterized by significant delays and lower operating speeds. Such operations are caused by some combination of adverse progression, high signal density, extensive queuing at critical intersections, and inappropriate signal timing.
6. **LOS F**—This represents traffic flow characterized by extremely low speeds. Intersection congestion is likely at critical signalized locations, with high approach delays resulting. Adverse signal progression is frequently a contributor to this condition.

LIGHT INDUSTRIAL—As used in this Plan, “light industrial” means a use involving research and development, assembly, processing, manufacturing, packaging of products, or storage and warehousing of materials or goods, conducted primarily within a building with few off-site impacts other than trucking.

EXAMPLES: cabinetry or woodworking shop, food processing, electronics high-tech manufacturing or assembly, machine shop, sewing, printing, research and testing laboratory, warehousing, and similar uses.

MAXIMUM PEAK HOUR SERVICE VOLUME—The maximum number of vehicles which have a reasonable expectation of passing over a given roadway section or through a given intersection under prevailing road and traffic conditions during a specified hour of time.

MIXED-USE AREA— As used in this Plan, “Mixed-Use Area” means the future land use area identified as such in the Regional Future Land Use Area Map, and is a regional land use area designation of land with a mixture of existing uses that is served by state highways, is generally multi-story, includes residential uses and deep lots, and is within walking distance of Regional Growth Areas. This Area is appropriate for recreational facilities, higher density residential, light industrial/manufacturing, land-consumptive commercial uses, service businesses, secondary retail, and uses not appropriate for the core of downtowns and villages, such as lumberyards, nurseries, warehouses, and kennels. Principal retail establishments are not allowed in this area.

NFIP—National Flood Insurance Program.

NO ADVERSE IMPACT—No Adverse Impact floodplain management is where the action of one property owner does not adversely impact the rights of other property owners, as measured by increased flood peaks, flood stage, flood velocity, and erosion and sedimentation.

OPEN SPACE—Any parcel or area of land or water essentially unimproved and set aside, dedicated, designated, or reserved for public or private use or enjoyment, or for the use and enjoyment of owners and occupants of land adjoining or neighboring such open space.

PEAK HOUR—As it is used in describing traffic volumes, it represents the hour of a twenty-four hour period in which the highest traffic volumes occur on a segment of roadway or at an intersection.



Appendix D: Transportation Corridors Overview

US Route 4

US Route 4 is one of only three east-west routes across Vermont and carries the highest volumes of the three (the other two are VT Route 9 and US Route 2). In this region the primarily two-lane rural road parallels the Ottawaquechee River along the old railroad alignment and winds through many sensitive natural landscapes and a number of vibrant community centers. US Route 4 is on the national highway system and Vermont's tractor truck network, so mobility and safety issues are a top priority. US Route 4 is also Main Street for a number of villages and hamlets. The road is a gateway into Vermont, a Scenic Byway, and tourism destination for experiencing the region's rural landscapes. Many residents' quality of life and the vitality of commercial businesses greatly depend on preserving this unique road and surrounding landscape. US Route 4 faces difficult challenges of preserving mobility, safety, and traveling efficiency while continuing to support community life and commercial activities. There are no other parallel roads or alternative travel options available and the topographical and environmental constraints would restrict all reasonably feasible roadway expansion projects. As traffic increases and land development intensifies, US Route 4 might be forced to accommodate that growth with little or no further transportation capacity improvements.

In 2008, the Hartford US Route 4 Corridor Management Plan (Appendix C) was developed by TRORC, the Town of Hartford and the Vermont Agency of Transportation that assessed existing and projected future transportation and land use conditions. The Plan resulted in a set of transportation and land use recommendations which the region has adopted for planning guidance. In 2009, the US Route 4 West Corridor Management Plan (Appendix C) was developed as a follow up project to the 2008 Hartford Corridor Plan and did a similar assessment from Hartland to Bridgewater. This Plan built on the Hartford Corridor Plan by defining Access Management Zones and offered recommendations for access management.

US Route 5

US Route 5 is one of two north-south arterials in the region that runs adjacent to the Connecticut River. US Route 5 is a two-lane rural road that parallels the river and offers many scenic landscapes and a number of vibrant village and town centers. US Route 5 has become part of the bi-state Scenic Byway and as such is recognized for its "unique historic, cultural, environmental, agricultural and railroading traditions and resources" (Connecticut River Scenic Byway - www.ctrivertravel.net). While US Route 5 is not included on Vermont's tractor truck network, many logging and other commercial trucks utilize this road to avoid interstate-imposed weight restrictions. US Route 5 serves as a Main Street for a significant number of town centers, villages, and hamlets. The region and the greater bi-state tourist industry rely heavily on US Route 5.

Over the last 5 years, TRORC has evaluated tractor truck traffic along US Route 5 which has averaged 5-8% of the overall traffic volumes. The majority of activity is trucking wood products northbound and these vehicles traditionally carry heavier loads than other forms of trucking. Speed limits have also been monitored within the villages and town centers. In those instances, speeds are shown to average 5-15 mph above posted speed limits although more active

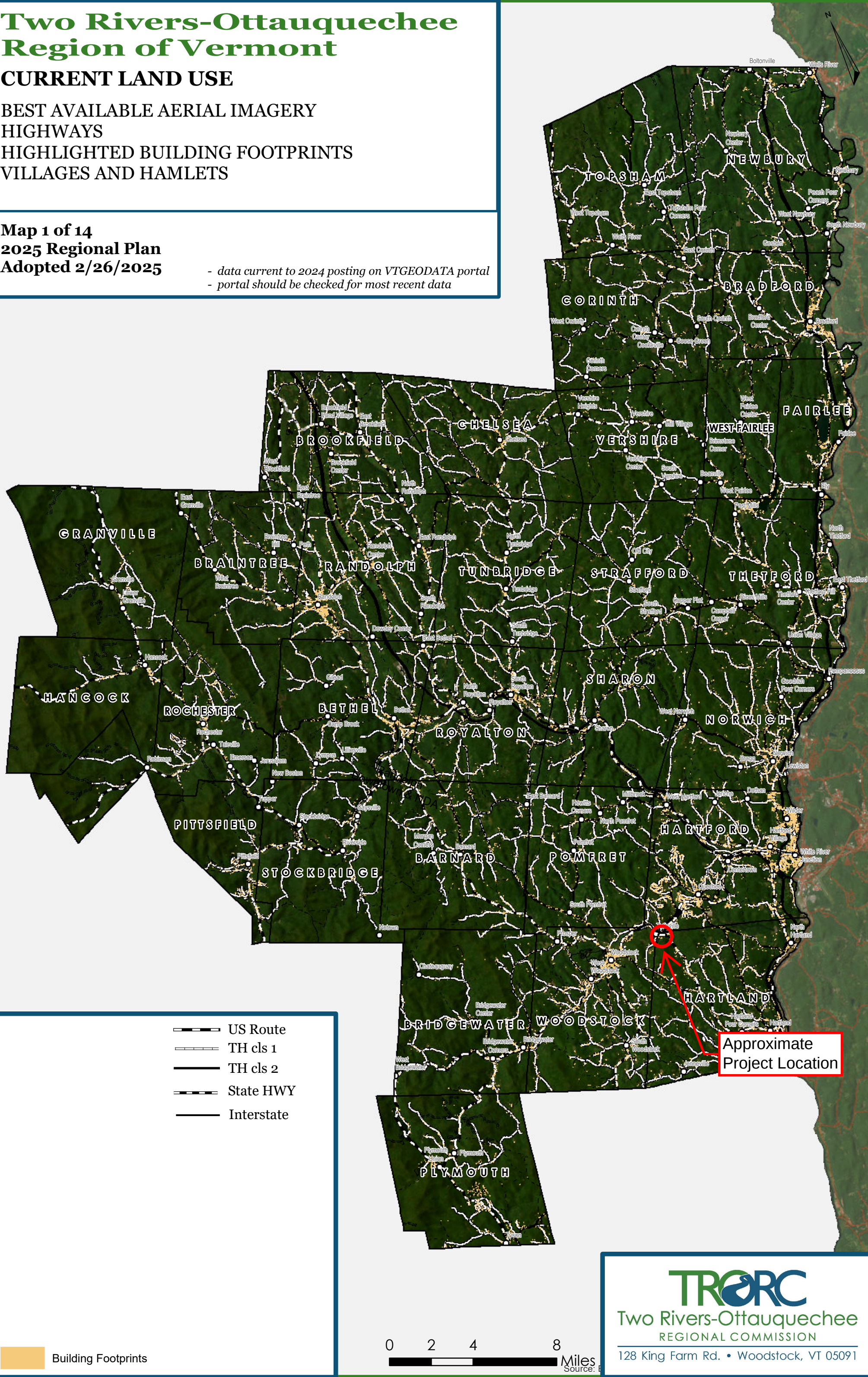
Two Rivers-Ottauquechee Region of Vermont

CURRENT LAND USE

- BEST AVAILABLE AERIAL IMAGERY
- HIGHWAYS
- HIGHLIGHTED BUILDING FOOTPRINTS
- VILLAGES AND HAMLETS

Map 1 of 14
2025 Regional Plan
Adopted 2/26/2025

- data current to 2024 posting on VTGEODATA portal
- portal should be checked for most recent data



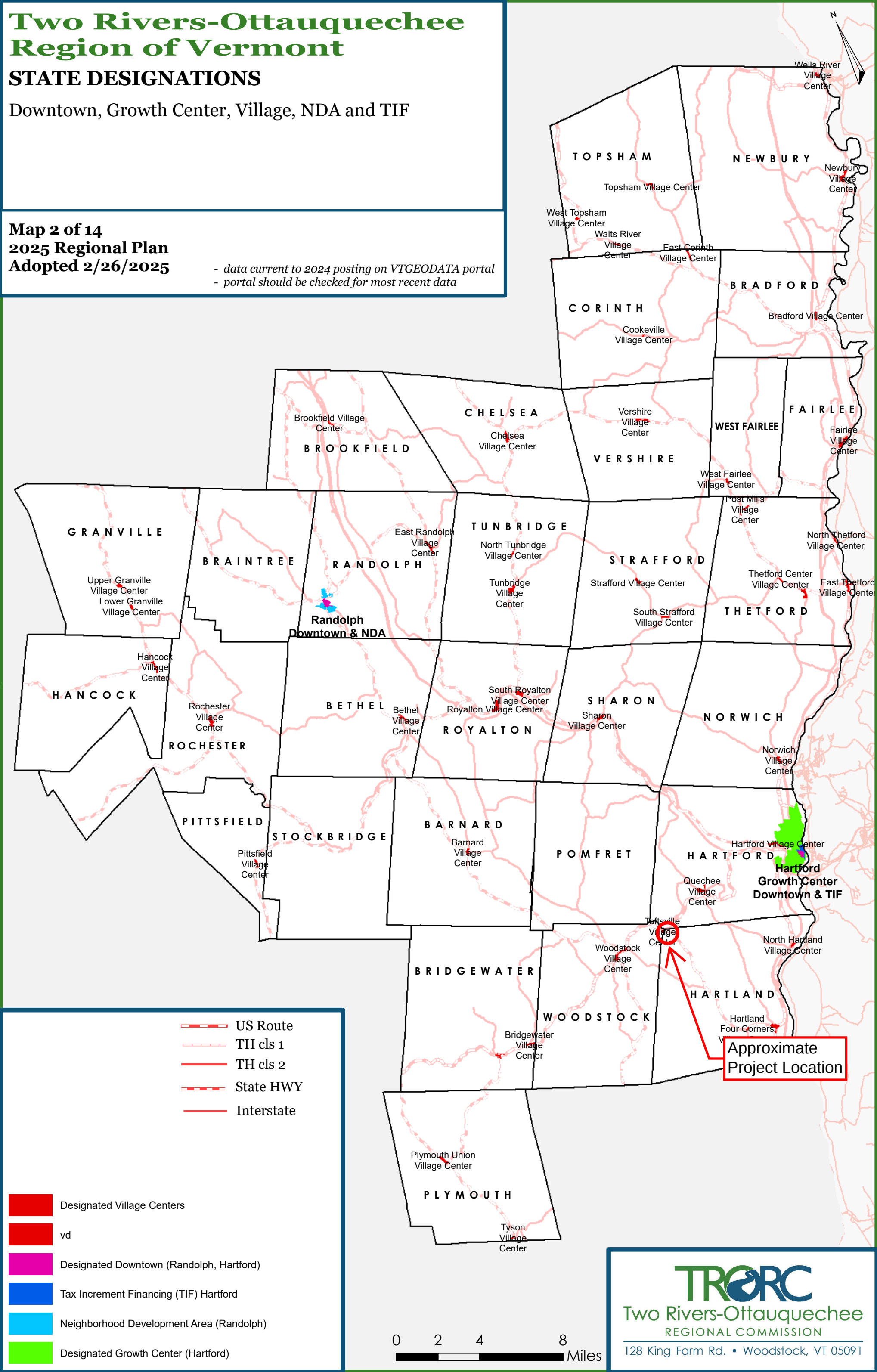
Two Rivers-Ottauquechee Region of Vermont

STATE DESIGNATIONS

Downtown, Growth Center, Village, NDA and TIF

Map 2 of 14
2025 Regional Plan
Adopted 2/26/2025

- data current to 2024 posting on VTGEODATA portal
- portal should be checked for most recent data

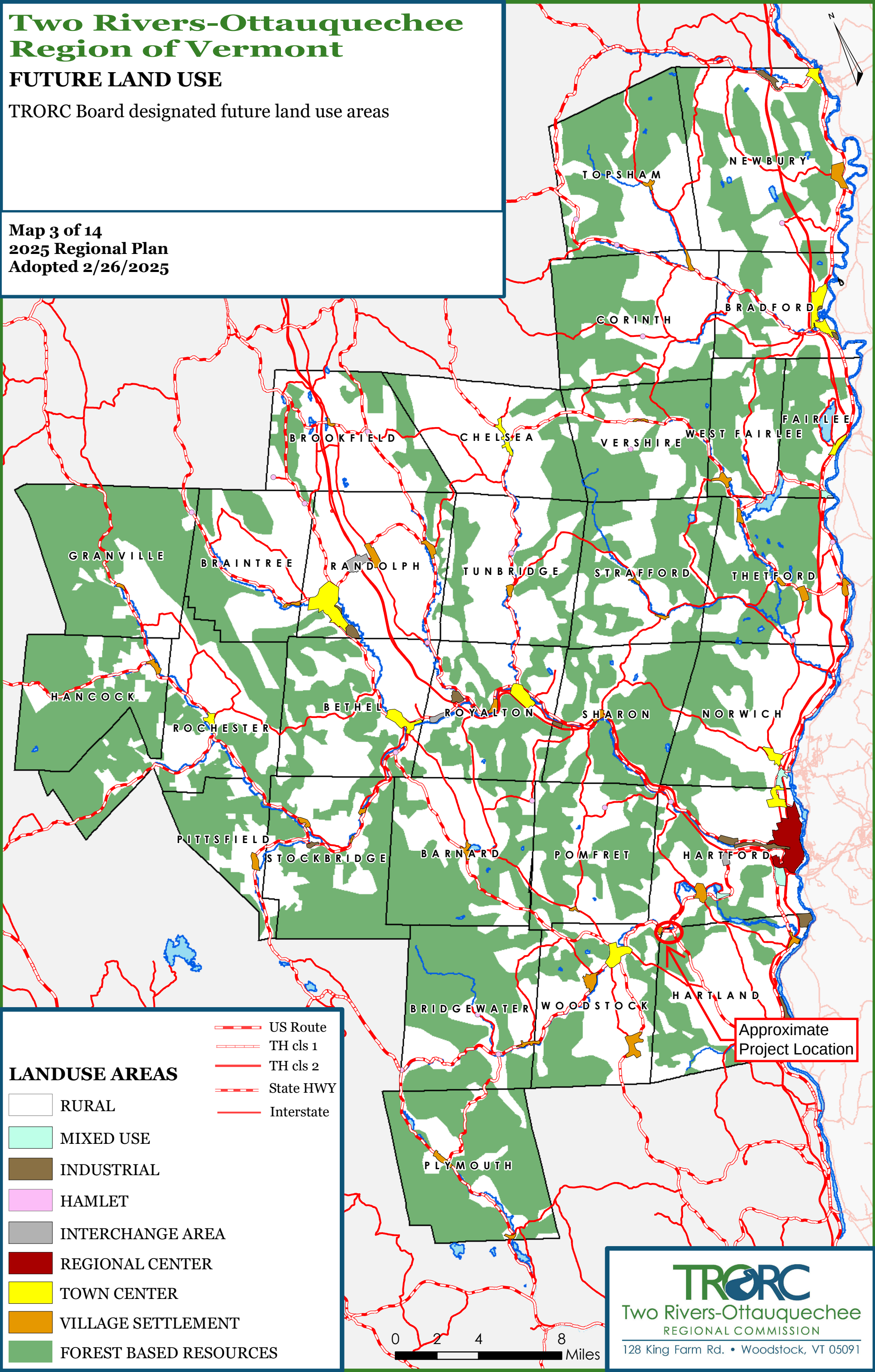


Two Rivers-Ottauquechee Region of Vermont

FUTURE LAND USE

TRORC Board designated future land use areas

Map 3 of 14
2025 Regional Plan
Adopted 2/26/2025



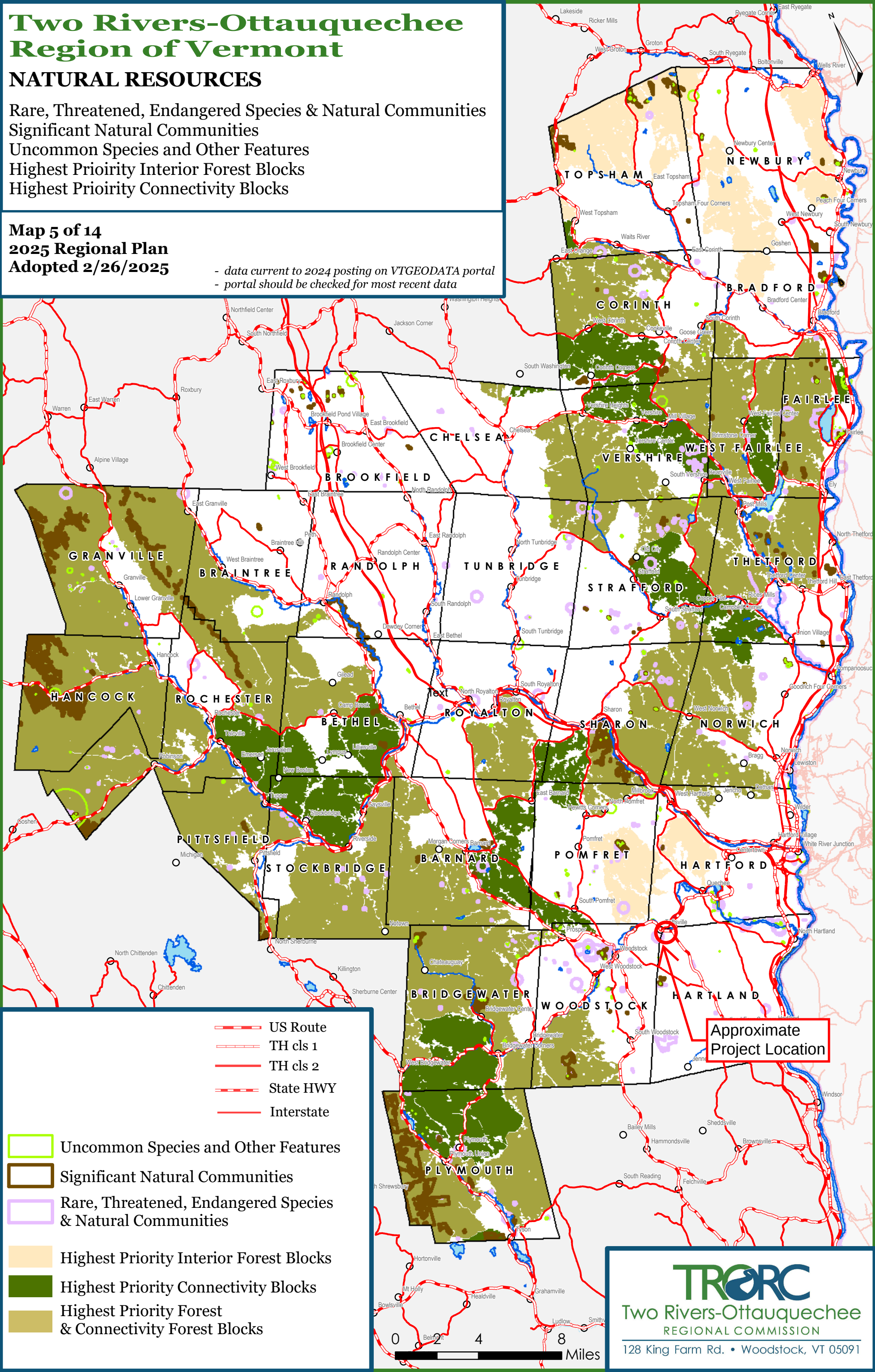
Two Rivers-Ottauquechee Region of Vermont

NATURAL RESOURCES

- Rare, Threatened, Endangered Species & Natural Communities
- Significant Natural Communities
- Uncommon Species and Other Features
- Highest Priority Interior Forest Blocks
- Highest Priority Connectivity Blocks

Map 5 of 14
2025 Regional Plan
Adopted 2/26/2025

- data current to 2024 posting on VTGEODATA portal
- portal should be checked for most recent data



Approximate
Project Location

- US Route
- TH cls 1
- TH cls 2
- State HWY
- Interstate

- Uncommon Species and Other Features
- Significant Natural Communities
- Rare, Threatened, Endangered Species & Natural Communities
- Highest Priority Interior Forest Blocks
- Highest Priority Connectivity Blocks
- Highest Priority Forest & Connectivity Forest Blocks

Two Rivers-Ottauquechee Region of Vermont

Regionally Significant Transportation Facilities

- Park and Rides
- Transit Providers & Rail
- AT and Long Trails
- Bike Lanes and Paths
- Federal & State Highway Systems

Map 8 of 14
2025 Regional Plan
Adopted 2/26/2025

- data current to 2024 posting on VTGEODATA portal
- portal should be checked for most recent data

