

# CHAPTER 5: TRANSPORTATION

## BACKGROUND

Transportation is a vital and necessary part of the larger planning landscape in the Windham Region. Our transportation infrastructure provides the mechanism for residents and visitors to move about the region and is a fundamental component of social, cultural and economic life. Ensuring that all residents are able to travel to work, school, healthcare, recreation, and social activities as safely and efficiently as possible is one of the primary goals of this plan.

The rural character of Vermont creates unique transportation challenges. Much of our region is dispersed in rural areas with relatively little commercial, industrial, educational and healthcare infrastructure. This necessitates that residents travel further to access such services than those in more heavily developed areas. For someone living in Jamaica, their commute to work, a visit to the doctor, or a trip to the grocery store can mean an hour and a half round trip to Brattleboro.

As such, most Vermonters are dependent on access to a personal vehicle to meet the majority of their transportation needs. Ensuring that our roads and bridges are built and maintained to a standard sufficient to safely and efficiently handle the region's commercial and personal vehicle traffic is critical. This includes being properly maintained during winter and as resilient as possible to the increasingly frequent flood events that we have experienced in the Windham Region over the past decade.

The car dependent nature of the region brings its own challenges. Average annual CO2 emissions are significantly higher in Vermont than New England as a whole. Additionally, transportation is a major challenge for those without access to a personal vehicle and limited alternative transportation options can create substantial barriers to employment, education, and healthcare access. Expanded access to public transit as well as improved infrastructure for bicyclists and pedestrians is critical to reducing the environmental impact of the transportation system as well as ensuring all residents are to get where they need to go to lead happy, healthy, productive lives.

This section outlines the existing conditions and major challenges of the transportation system as well as regional goals for improvements that will benefit the social, cultural, environmental, and economic character of the Windham Region. The plan identifies local and regional implementation strategies to help meet these goals and outline the role the Windham Regional Commission in working with our state and local partners to maintain and improve transportation infrastructure in the Region.

## LAND USE AND TRANSPORTATION

Transportation and land use are closely linked. Land use patterns determine how systems of transportation function in a particular place, and the transportation system will have an impact on existing and future land use and development in a given area. This is especially true in Vermont where our historic pattern of compact settlement creates a particularly sharp divide between densely populated downtowns and villages and the surrounding rural areas. Context sensitive transportation planning that adequately considers existing and future land use is a critical to address the challenges identified in this plan.



DOWNTOWN BELLOWS FALLS

*Photo Credit: WRC*

The dispersed rural character of the Windham Region contributes to unique transportation challenges. Many residents live a considerable distance from healthcare, shopping, education and employment and must travel long distances each day to go to work or school, to buy groceries or to see a doctor. Behind housing, transportation is the 2<sup>nd</sup> largest expense for Vermonters. The 2022 Vermont Basic Needs and Livable Wage Report estimated that rural Vermonters spend an average of \$666 per month on transportation, equal to approximately 25% of their monthly budget.

There is a critical link between housing and transportation costs. The further people live from their place of employment, the grocery store, and other daily needs, the more they will spend on transportation. Transportation costs and impacts must be considered when planning for housing development in the region. Siting new housing in such a way that is as convenient to employment, education, and commercial centers will reduce travel distances and transportation costs.

Additionally, transportation improvements for all users and modes must be incorporated into planning for housing. Housing that is close to important destinations, as well as connected to those destinations by public transportation and adequate infrastructure for walking and biking, will reduce transportation costs for residents. This also supports the local economy by improving accessibility and expanding the customer and employee base for businesses.

Transportation, housing, and the local economy are deeply interwoven; the vitality of our downtowns and village centers is largely dependent on having a concentration of population sufficient to support local business and a transportation system that is adequate to allow people to conveniently access those businesses.

Our Downtown Centers, Brattleboro, Bellows Falls, and Wilmington, as well as the many Village Centers in the region, are densely populated hubs for commerce, culture and civic life. The scale and design of these areas should enhance the functions of the village at the human scale, and not simply increase the efficiency with which a vehicle may pass through the village. Downtowns and villages are the places in the region that people can navigate most easily without a vehicle and improving bicycle and pedestrian infrastructure is particularly important in this land use context. Sidewalks and bicycle lanes should be improved and expanded where possible. Traffic calming techniques and complete streets principals should be adopted to reduce functional conflict between drivers and other users.

Ensuring that our downtowns and villages are as safe, attractive and efficient as possible for people walking and biking will make our region a more desirable place for people to live and work, promoting economic development and improving quality of life. Furthermore, improving the bicycle and pedestrian network will increase access to education, employment, healthcare and other basic needs for residents without access to a personal vehicle.

Resource-based recreation areas, which in our region are ski resorts, are important centers of the regional economy and the seasonal influx of visitors creates unique transportation conflicts. Efficient, reliable transportation systems for accessing the resort areas will reduce congestion and improve the seasonal experience of visiting these areas.

The transportation corridors of the rural lands in the Windham Region provide connections between downtowns, villages, and resort centers, as well as to destinations in neighboring areas. Preserving the rural character of the region must be considered when reconstructing or redesigning roads and bridges and unnecessarily increased traffic volumes and speed should be avoided. Bicycling facilities should be enhanced along roadways, and connections to regional trail networks that combine separated paths, road shoulders, Class 4 Town Highways, and Legal Town Trails should be considered.

## ENERGY AND TRANSPORTATION

The rural, largely dispersed character of the Windham Region causes residents to travel longer distances and be more dependent on personal vehicles than other more urbanized states. Addressing car dependence through improved transit and multi modal connectivity is an important step in reducing emissions and energy consumption. However, given the rural character of the area it is likely that cars will remain the primary mode of transportation for the foreseeable future. Reducing emissions through the adoption of low and no emissions vehicles is therefore is an important step towards improving the efficiency and sustainability and reducing the negative environmental

impact of our transportation system.

Transportation is a major contributor to the state's overall energy consumption and greenhouse gas emissions. As of 2021, transportation accounted for 34% of total energy consumption and 40% of GHG emissions in Vermont. The most recent data from the Federal Highway Administration shows that while Vermont produces approximately 20% less per capita emissions than the national average, the State lags behind the rest of New England in reducing the transportation sector's carbon footprint. Reducing both annual vehicle miles travelled through land use planning for compact settlement and improved multi modal transportation infrastructure, as well reducing carbon emissions per vehicle mile by promoting the adoption of low and no emissions vehicles, are critical steps in reducing the overall carbon footprint of the transportation sector in the Windham Region.

In 2022, the State of Vermont adopted new standards for low and no emissions vehicles, generally known as the 'California Emissions Standards'. The transition to low and no emission vehicles in Vermont will require extensive planning and policy implementation efforts at the State, Regional and Local level. Currently, 98% of the total vehicle fleet in Vermont, equal to 591,273 registered vehicles, are classified as light-duty gasoline vehicles. In comparison there are 8,875 electric vehicles, representing only 1.5% of the overall fleet, as of 2022.

Specific goals and implementation strategies for climate and energy resiliency in Vermont are outlined in detail in the 2022 Statewide Comprehensive Energy Plan and the 2021 Climate Action Plan. While these goals are discussed in more detail in the Energy Section of the Windham Regional Plan, improvements in the transportation sector are of particular importance to meeting these statewide goals.

As the number of hybrid, electric, hydrogen, and other alternative fuel vehicles as a proportion of the total personal vehicle fleet rises, improvements are needed to ensure the infrastructure in our region is capable of meeting the needs of an increasingly diverse vehicle fleet. This includes expanding electric vehicle charging infrastructure, both in private homes and in public spaces, as well as ensuring fueling stations are available for hydrogen cell vehicles. Charging and fueling stations should be conveniently located, and easily accessible from all major transportation corridors in the region.



EV CHARGING STATION,  
BRATTLEBORO  
*Photo Credit: WRC*

Electric vehicle charging infrastructure is particularly important in our downtown and village centers, as well as resort areas. The age of housing stock in Vermont represents a challenge to expanding private electric vehicle charging infrastructure. Older homes, particularly those built before 1950, represent a disproportionately larger share of the overall housing market in Vermont than in the United States as a whole. Costs to incorporate electric vehicle charging into historic homes are substantially higher than to build that same infrastructure into new development and this is a major challenge to implementation of the California emissions standards in Vermont.

Downtown and village centers are centrally located destinations where people can fuel their low or no emissions vehicle while taking advantage of the commercial and cultural amenities those areas provide. This is a more attractive proposition than sitting at a rest area off of the highway waiting for your vehicle to charge. To this point, resort centers have not been prioritized for funding for public vehicle charging infrastructure and the current infrastructure is inadequate to meet the needs of the region, particularly during the busy winter months. Expanding charging and fueling stations for low and no emissions vehicles in resort centers is important to meet those demands and bolster the tourism economy.

Additional strategies to reduce emissions in the Windham Region include promoting greater use and efficiency of public transportation, promoting the adoption electric bicycles, and increasing the number and usage of park and ride lots in the region to encourage carpooling.

## TRANSPORTATION RESILIENCY

The transportation system in the Windham Region is under increasing threat from changing, increasingly unpredictable weather patterns impacting Vermont and the United State as a whole. We have seen the devastating impacts of these storms in recent years, including the July 2023 flood emergency, the March 2023 winter storm, the July 2021 storms, and Tropical Storm Irene in 2011. These events caused billions of dollars of damage, isolated residents from essential services, and required extensive and costly repairs that in some cases took months of labor from state and municipal highway crews. Ensuring that our transportation infrastructure is resilient and able to mitigate the impacts of increasingly severe storms is central to the safe, efficient function of the network.

The transportation network in rural Vermont is uniquely vulnerable to the impacts of severe weather. Much of our road network is located along steep slopes, oftentimes directly adjacent to waterways, and is subject to intense run off and in some cases landslides during severe storms. This washes out the roadways, oftentimes making them impassable, and transports large amounts of harmful sediment into our waterways. Our unpaved roadways are particularly vulnerable to damages. Dirt roads are more often located in remote areas and challenging terrain than paved roads, and are therefore subject to more intense run off during storms and thus more prone to wash outs.



DAMAGE TO BACK WINDHAM ROAD,  
TOWNSHEND, JULY 2021  
*Photo Credit: WRC*

Substantial improvements to our transportation infrastructure are needed to improve resiliency. This includes improved ditching, properly sizing culverts, and incorporating best practices when constructing road base and crown. The Windham Regional Commission works closely with our towns in implementing these improvements, aiding in evaluating current conditions and vulnerability, identifying potential projects, and applying for and implementing grant funded improvement projects.

## STORMWATER MANAGEMENT

Culverts are an important and often overlooked piece of the larger transportation network and ecology of the region. Culverts are critical infrastructure that move our rivers and streams underneath the road network, ensuring that riparian corridors can flow naturally with as limited an impact on our transportation system as possible. Each town owns and maintains hundreds of culverts spread across their roads, and the installation and maintenance of culverts represents a substantial and increasing cost for the Windham Region.



EXAMPLE OF ROAD CULVERT  
*Photo Credit: WRC*

Proper culvert sizing and alignment is critical to reducing the impact of stormwater on our roadways. Culverts that are undersized or misaligned are prone to failure during major storms as high-water levels can cause the stream to overtop the structure, leading to wash outs, especially on gravel roads. Undersize culverts are also prone to blockage from woody debris filling the inlet and preventing the continued flow of water culvert, also contributing to culvert failure. Wash outs are major and expensive damages to town highways, they put large amounts of sediment and road materials into our waterways, endangering the health of the aquatic ecosystem, and in severe instances can cut off sections of the road network entirely,

isolating residents and limiting access for emergency vehicles. While these impacts are not as dramatic or expensive as the damages from major rain events, they still have a significant cumulative impact on water quality and the sedimentation of our waterways.

It is important to the overall resiliency of our transportation infrastructure that culverts are large enough to accommodate high water events consistent with the Agency of Transportation Hydraulics Manual Standards. In addition to these standards, best practices also include ensuring that all culverts are properly aligned with the natural course of the stream channel and that the bottoms of culverts simulate a naturalistic environment as best possible.

Culverts are also critical to the overall aquatic ecology of the region. Properly constructed culverts allow fish and other aquatic animals to move freely through the environment with minimal conflict with the transportation system, preserving the natural character of Vermont and supporting healthy aquatic animal populations. This in turn supports recreation and the recreation economy in the region, ensuring that fish populations are healthy and widespread to support fishing. Aquatic animal passage should be considered when making decisions about culverts and other structures in our waterways.

Responsibility for driveway culverts is another challenge that many towns have grappled with in recent years. They are most often located within the town's right of way; however, they may be privately owned depending on the policy of the municipality. When undersized or improperly installed, driveway culverts can contribute to significant issues with drainage and washouts. Local policies on driveway culverts vary substantially. The Windham Regional Commission recommends that all towns in the region adopt formal language related to driveway culvert responsibility to minimize conflict and improve the overall resiliency of our transportation system.

Vermont made significant changes to standards and best practices related to stormwater management and transportation infrastructure in the wake of Tropical Storm Irene. Most relevant is the Municipal Roads General Permit. Reissued in 2023, the MRGP requires towns to bring hydraulically connected road segments up to state standards for stormwater infiltration in order to mitigate impacts of future major storm events. The scope of this work most often includes upsizing culverts as well improving ditching on town highways. The State has required that towns bring all segments classified as “very high priority” into compliance by 2028 and that



EXAMPLE OF BOX CULVERT  
*Photo Credit: WRC*

hydraulically connected roadways be brought up to MRGP standards by 2036.

Increases in the costs of culverts present a substantial challenge to the implementation of the policies outlined above. The cost of replacing existing culverts with larger structures is often beyond the financial capacity of already strained town highway budgets. Several federal and state grant funding sources are available to help towns offset these costs, including the VTrans Town Highway Structures, Grants in Aid, Better Roads, Transportation Alternatives and Municipal Highway and Stormwater Mitigation programs.

## IMPACTS OF A WARMING CLIMATE

The general warming trend the Windham Region has experienced in recent decades has affected the overall function of our transportation system. Historically, towns could rely on a hard freeze for several months of the year, and gravel roads generally froze from early December to Mid-March before the spring thaw and the onset of mud season. This freeze created favorable conditions for gravel road maintenance, with towns able to plow and sand roads on top of a solid frozen base.

Increasingly, winters have warmed in the region to the point where a solid winter freeze has been replaced by a continuous freeze-thaw cycle throughout the winter months. Mud has become a serious issue for town highways outside of the normal late March-April mud season, and unpaved roads increasingly experience mud season-like conditions throughout the winter months. This puts considerable strain on our local transportation infrastructure, making winter travel more difficult for visitors and residents and substantially raising sand and gravel, as well as labor, costs for towns. As muddy roads have become increasingly common during the winter months and our summers have gotten wetter, dealing with mud is more important now than ever for the overall function of our town highway infrastructure. Furthermore, the combination of muddy winter roads and snow storms has resulted in substantial damage to our roadways, as well as the health of our rivers and streams, from the large amounts of sediment that was plowed up and transported into waterways. Improved ditching is the primary tool available to towns to combat the impacts of mud. Properly constructed, stone lined and planted ditches improve drainage and collect sediment, more quickly drying out our dirt roads and trapping run off related sediment before it enters our waterways.

## SAND AND GRAVEL MATERIALS

Finally, sand and gravel costs have increased dramatically for towns in the Windham Region in recent years and have become a substantial burden on town highway budgets. The recent closure of several sand and gravel pits in the region has caused many towns to truck in aggregate from greater distances, leading to a substantial increase in transportation costs. Furthermore, increased demand at the smaller number of regional aggregate suppliers coupled

with significant challenges in permitting and approving new or expanded pits at both the State and Local level has driven up prices significantly even without factoring in increased transportation costs. This is a major concern for our towns.

## HIGHWAYS AND BRIDGES



WEST DUMMERSTON COVERED BRIDGE  
*Photo Credit: WRC*

There are approximately 1,700 miles of roads in the Windham Region, ranging from the limited access highway Interstate-91, which averages more than 20,000 vehicles per day at its busiest section in the region, to unmaintained, impassable class 4 town highways, which see few, if any, vehicles on any given day. Town highways are the primary transportation system in the region, carrying thousands of residents, visitors, commuters and others to and from important destinations each day. Town highways also represent the largest expense for most communities in the region and rising costs for road materials and paving represent a significant challenge for our communities. Ensuring that town

highways are properly constructed and sufficiently maintained to accommodate traffic volumes is critical to the overall vitality of the Windham Region.

In addition to the town's local highway budget, the VTrans Town Highway State Aid provides substantial funding for towns to maintain and improve their transportation infrastructure in accordance with 19 V.S.A. § 306(a). Towns are paid quarterly by the State depending on their total town highway mileage and no application or local match is required. The only stipulation is that State Aid highways funds are used solely for town highway construction, improvement, and maintenance purposes, and that towns expend no less than \$300 per road mile. These rates vary based on roadway class, with Class 1 town highways receiving the highest allocation per mile and Class 3 the lowest. As of 2023 the current per mile town highway State Aid rate for Class 1 is \$13,365.59, for Class 2 is \$4,916.01, and for Class 3 is \$1,825.45. This is a critical source of funding for towns to ensure that our transportation system can continue to function at a level adequate to meet the needs of the region.

## TOWN HIGHWAY CLASSIFICATION

Town Highways in Vermont are divided into four classifications as described below, based primarily on the condition of the roadway and daily traffic volumes:

**Class 1:** Class 1 town highways are sections of numbered state highways that are owned and maintained by

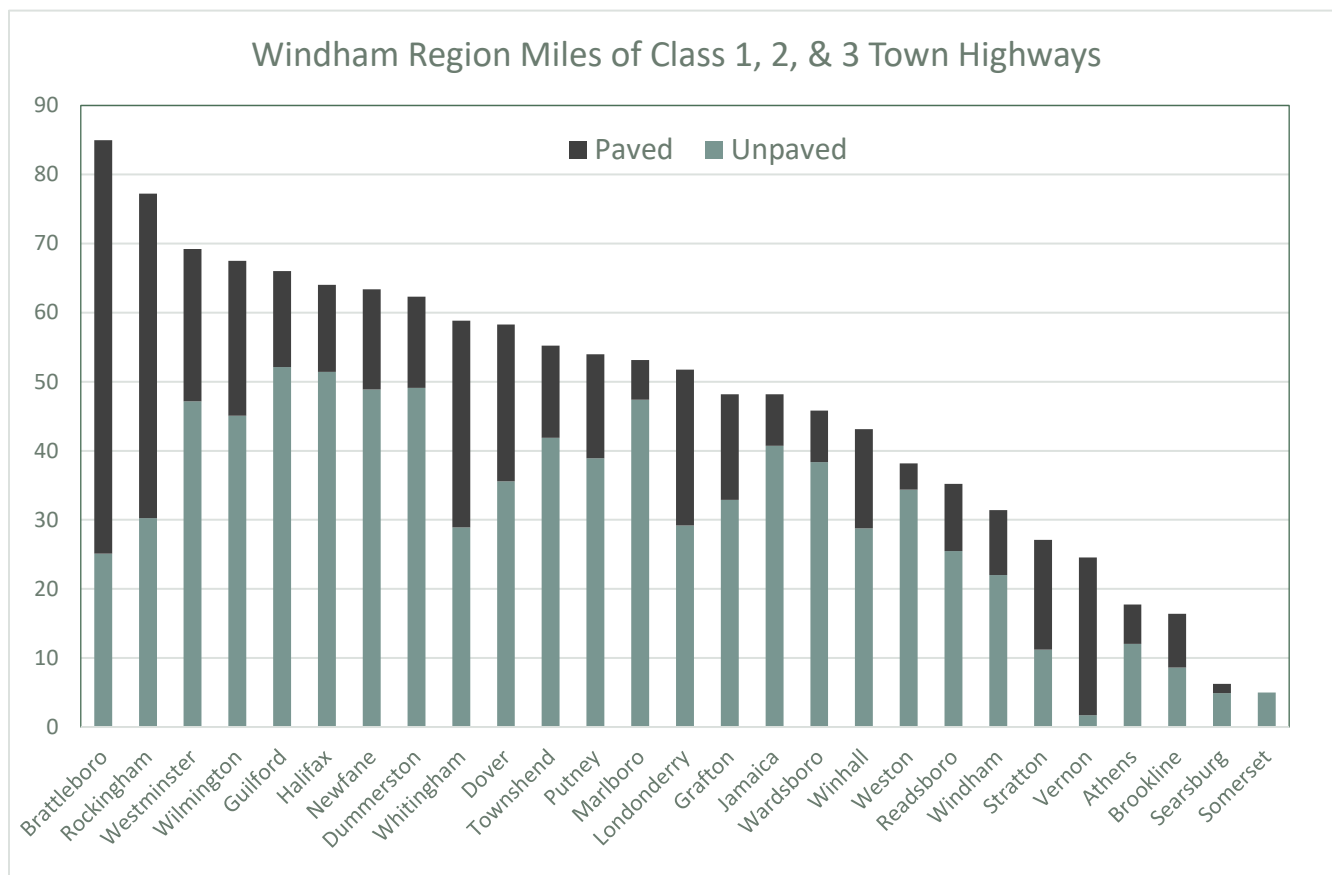
municipalities. They are town generally a short section of town owned roadway within a larger section of the state highway, often in a village or urban setting. There are clearly defined boundaries for state and town responsibility.

**Class 2:** Class 2 town highways are generally the most important local roads. They often handle the largest volume of daily traffic and provide the primary connection between towns or villages. Class 2 town highways are often but not always paved and the proportion of paved or unpaved town highways varies greatly between towns in the region.

**Class 3:** Class 3 town highways represent the largest total number of road miles in the region. These are the majority of roads in a community, generally all local roads that do not serve as major connections between towns and villages. The State of Vermont requires that Class 3 roads must be “negotiable under normal conditions all seasons of the year by a standard manufactured pleasure car” and “should be plowed and made negotiable during the winter”. Class 3 town highways are often unpaved in rural areas, while most are paved in or near villages and urban areas.

**Class 4:** There are no minimum maintenance requirements for Class 4 town highways. Most towns do not maintain Class 4 town highways, though maintenance is at the discretion of the municipality. Some Class 4 town highways are maintained by local residents and provide access to homes and camps. Other Class 4 town highways may be passable only to high clearance/four wheel drive vehicles, or abandoned and completely impassable.

The chart below shows the total miles of paved and unpaved Class 1, 2, and 3 town highways in each municipality in the Windham Region. Approximately 83% of Class 2 town highways are paved, as compared to only 19% of Class 3 town highways. For most communities outside of the larger towns of Brattleboro and Rockingham, the total mileage of unpaved roads is significantly greater than paved roads, although there are exceptions, such as Whitingham, Stratton, and Vernon.



## CLASS 1 HIGHWAYS

Class 1 roads in the Windham Region are concentrated in our two largest communities, Brattleboro and Rockingham, comprising of short sections of Route 5 through Downtown Brattleboro and the Village of Bellows Falls, Route 9 in Brattleboro from the intersection with Main Street to West Brattleboro, and a short section of Route 100 in Readsboro. Class 1 town highways give towns greater control and flexibility of state highways in their downtowns and villages, allowing towns to set speed limits, site crosswalks, build and maintain infrastructure such as sidewalks, bike lanes, or implement traffic calming techniques without the approval process required for VTrans-owned and maintained highways.

Any potential reclassification of State Highways to Class 1 town highways needs to be carefully considered. There are significant potential benefits for towns to take control of state highways within their downtown and villages centers. Reclassifying to Class 1 gives towns more autonomy to make decisions on important transportation issues that impact a communities' most important civic, commercial, and cultural centers. Reclassification of state highways does, however, increase local highway maintenance costs, as state highways in downtowns and villages are often the most heavily trafficked sections of roadway within a town.

VTrans is expected to issue updated guidance on reclassification of Class 1 town highways by 2027, as well as update design standards on state highways within villages and downtowns over the next few years. The Windham Regional Commission will provide support to municipalities when considering the reclassification of state highways to Class 1 in our downtowns and villages and planning support in accordance with the updated VTrans guidance and design standards once they are issued.

## CLASS 2 AND 3 HIGHWAYS

The vast majority of roads in the Windham Region are Class 2 and Class 3 town highways. These are the roadways which move the majority of goods and people throughout the region and the safe and effective function of Class 2 and 3 town highways is critical to social, cultural and economic life in the region.

Class 2 town highways may be paved or unpaved and the proportion of paved or unpaved town highways varies greatly between towns in the region. Gravel and dirt roads contribute greatly to the region's rural character and charm, but can also present greater maintenance challenges for towns during winter and mud season as discussed in the Transportation Resiliency section. It is a difficult decision for Selectboards whether or not to pave a road in their town. Paving unpaved roads is a substantial expense for most towns and gravel roads can be significantly less expensive to maintain, but factors such as volume and type of traffic, and existence of steep grades, may outweigh the lower maintenance costs. Gravel roads are more prone to erosion and wash out during high water events which can significantly increase costs as well as greatly impair overall transportation connectivity during severe storms. These factors must be carefully weighed and addressed in both the context of the specific needs of the town and the greater character and atmosphere of the Region.

The Class 2 Town Highway Paving Program is the primary funding source for towns to pave currently unpaved or to resurface existing paved Class 2 town highways. This funding is limited to a total sum of \$200,000 and is allocated annually by the VTrans District based on a formula that accounts for a variety of factors including Class 2 town highway miles as well as how recently a town has received funding. Towns must apply to their VTrans District, in the Windham Region either District 1 or District 2 depending on the town, and the funding requires a 30% local match, reduced to 20% if the town has adopted road and bridge standards that meet the minimum state requirements.

Class 3 town highways represent the largest total number of road miles in the Windham Region. Class 3 highways are generally unpaved, primarily rural and residential in character, but also provide important connections for agriculture, logging, and other industries in the region's resource economy. Constructing and maintaining Class 3 highways with a proper sub base and drainage is important to the overall functionality of the transportation system and the Windham Regional Commission will continue to work with towns on implementing best practices on gravel

road construction and maintenance around the region.

## CLASS 4 HIGHWAYS AND LEGAL TRAILS

Class 4 town highways and legal town trails are a small part of the region's overall road network, comprising 119.8 and 42.7 total road miles, respectively. Increasingly, the Windham Region has seen residential development taking place on Class 4 town highways. This development can create potential issues for municipalities where increased traffic volumes due to new development exceed the reasonable capacity of a Class 4 town highway. It is important that towns maintain clear policies on local maintenance limitations, as well as municipal versus property owner responsibilities for both the maintenance and reclassification of Class 4 town highways.

Legal Trails and Class 4 town highways can also provide significant opportunities for recreational use for hikers, bicyclists, and snowmobiles, and are often underutilized in this capacity across the region. The Windham Regional Commission supports planning and implementation for towns to examine how Class 4 town highways and legal town trails may fit into the larger trail and recreation network in their community and where opportunities may exist to encourage greater recreational use of such facilities and improve integration into the larger regional trail network.

## BRIDGES

Bridges are critical pieces of the larger regional highway system, vital to the overall function of the transportation network in the Windham Region. Bridges are the most expensive and difficult transportation infrastructure for towns to maintain and replace. Towns are largely dependent on state funding to ensure that our region's bridges can continue to handle the daily traffic loads necessary to ensure the efficient function of the transportation network. Aging bridge infrastructure is a major challenge for our region and across Vermont. As of 2023, VTrans has identified



PUTNEY ROAD BRIDGE, BRATTLEBORO  
*Photo Credit: WRC*

1,250 bridges across the state in need of repair, equal to 44% of all bridges in the State. The vast majority of these bridges are owned and maintained by municipalities, and ensuring that all bridges in need of repair are identified and addressed in a timely manner is critical to the continued functioning of our transportation network.

Bridge replacement and repair projects are expensive and substantial construction cost increases in the past few years have put a strain on our ability to meet state and local infrastructure needs. The Vermont 2022-2025 State

Transportation Improvement Program allocated funding for 32 town highway bridges across the state, including 8 in the Windham Region, totaling nearly \$105 million in total cost. These 8 bridges represent just a small fraction of those in the Windham Region in need of repair. The Town Highway Bridge program is the primary source of funding for bridge replacement and repair projects for towns in the Windham Region. It is critical that we advocate for our town highway bridges to be prioritized and addressed in a timely manner whenever possible. Furthermore, the Windham Regional Commission will continue to work with towns on identifying and accessing funding for bridge replacement projects beyond the VTrans bridge program. This includes a variety of direct Federal grant programs, as well as funding from the Northern Borders Regional Commission.

The smallest, most resource-limited towns in the Region are in a particularly difficult position in securing funding to replace aging bridge infrastructure. Agency of Transportation funding formulas use a variety of criteria to prioritize local bridge projects, and funding is prioritized for bridges on more heavily trafficked sections of road in larger, generally more well-resourced, communities. It is difficult for our smallest towns to be competitive in this process and they often have no choice other than to continue to spend large amounts of their municipal budget on patchwork bridge repairs that do not provide lasting solutions for their aging bridge infrastructure. The Windham Regional Commission will continue to advocate for more equitable distribution of bridge funding that ensures that our small, rural towns are not forgotten during the state and federal infrastructure funding decision making process.

## BICYCLE AND PEDESTRIAN

Infrastructure for bicyclists and pedestrians is a major component of the transportation network in the Windham Region. Ensuring that our communities are safe, attractive, and efficient places for residents and visitors to walk and bike is vital to the broader social, economic, and cultural life of the region, and contributes greatly to the overall livability of our towns. Adequate bicycle and pedestrian infrastructure is a major factor in the economic vibrancy of our downtowns and villages; people are more likely to spend time and patronize local businesses and cultural institutions if they are provided with space that creates a pleasant, inviting environment to walk down the street.



EXAMPLE OF PEDESTRIAN CROSSWALK  
*Photo Credit: WRC*

This touches on many aspects of life in the Windham Region, including public health, equity, and sustainability. It has been demonstrated that people are more likely to be physically active when they are able to conveniently access sidewalks and bike lanes that connect their home or place of work with important destinations. Many people are

happy to walk half a mile from their home to the grocery store if they can do so on a well maintained, properly constructed sidewalk rather than on the narrow shoulder of a busy road. This passively introduces physical activity into the lives of people in our communities improving quality of life and overall health.

This is also critical to equity considerations in the region. Low income, older, and disabled residents are less likely to have access to a personal vehicle than the population as a whole. Sidewalks and bicycle lanes provide critical access to healthcare, education, employment, healthy food, and social engagement for vulnerable populations. Additionally, ensuring our towns are walkable and bikeable reduces dependence on personal vehicles for those who have access to them, reducing the environmental impact of gasoline powered vehicles as more people choose to walk or bike to their destinations each day.

## DOWNTOWN AND VILLAGE CENTERS



EXAMPLE OF SIDEWALK IN HISTORIC  
VILLAGE SETTING  
*Photo Credit: WRC*

Bicycle and pedestrian planning is closely linked with land use. Compact settlement principles are central to making our region as walkable and bikeable as possible. Physical distance is an important consideration to how often one will walk or bike, rather than drive, as they go about their day. If you live in close proximity to your place of work, your school, the grocery store, healthcare facilities, restaurants, religious and civic institutions, you are much more likely to access them on foot or on your bicycle than if the nearest grocery store or church is several miles away on a narrow rural highway.

The historic settlement patterns of the Windham Region bolster bicycle and pedestrian planning efforts within town and village centers. Brattleboro, Bellows Falls, Wilmington, and our numerous villages provide convenient access to economic, cultural and recreational facilities to the many people who live within them. The Windham Regional Commission supports efforts to improve bicycle and pedestrian infrastructure in the region, including installing and extending new sidewalks where feasible, incorporating bike lanes into our existing roadways, and the construction of off-road mixed-use paths where on road infrastructure is not possible. This also includes incorporating Complete Streets principles and best practices into roadway design, in particular in our Region's designated Downtown and Village Centers.

Walkability in our downtowns and villages is closely linked with overall village vibrancy. The commercial, cultural and civic health of our downtowns and villages is central to increasing walking and biking in the region. Strong village

centers with a variety of businesses and institutions that provide residents local options for grocery shopping, dining, hardware stores, and other services, will bolster efforts to improve bicycle and pedestrian connectivity in the region. The closure of a general store or a restaurant in a village can have a significant negative impact on active transportation in a community; residents who once may have walked to their local hardware store now must drive several miles away to access those same services.

The recent closure of a pharmacy in Londonderry is one such example. Residents now must travel more than 15 miles to the nearest pharmacy in Manchester for necessary medical care that was once easily accessible within the village. This has increased the strain on the 'Neighborhood Connections' On-Demand transit service, which now must schedule and transport those customers, increasing emissions, road miles, and limiting availability of trips for other riders.

Safe, efficient, and attractive bicycle and pedestrian infrastructure also has a positive effect on the cultural and economic character of towns. It is well demonstrated that when this infrastructure exists, people are much more likely to walk from their neighborhood to spend time in nearby commercial centers. This leads to an overall increase in activity in downtowns and villages and the overall customer base available to local businesses and cultural institutions.

While the majority of our existing bicycle and pedestrian infrastructure network is located in downtowns and villages, it is also important that residents in rural areas be able to safely walk and bike on their rural town highways. Limiting conflict between vehicles and other road users is important to ensure all residents can safely and comfortably walk and bike on our rural roadways.

## PLANNING AND FUNDING CHALLENGES



PUTNEY VILLAGE CENTER  
*Photo Credit: WRC*

There are several common challenges that towns face in constructing new, or extending existing bicycle and pedestrian infrastructure. These include project costs, right-of-way acquisition, and planning within existing historic and narrow streetscapes. Such projects, particularly sidewalk construction projects, are very expensive, generally beyond the reach of what towns are capable of taking on without grant funding. A 2020 VTrans estimate put the average cost per foot of a concrete sidewalk with granite curbs at \$317, meaning the construction of 1,000 feet of new sidewalk would cost in the range of \$320,000.

This number has almost certainly increased since the 2020 estimate and furthermore does not account for other

costs associated with major construction projects, such as right of way, traffic control, project management, and built-in contingencies.

Ongoing maintenance of the existing bicycle and pedestrian network is also important. Winter maintenance in particular is a significant challenge to the effective year-round functioning of our pedestrian network. Sidewalks not being properly cleared of snow and maintained during the winter months creates substantial barriers to the overall walkability of our communities.

Right of way acquisition can be an expensive and controversial proposition. Acquiring privately-owned land for municipal projects is never a simple or easy process, and must be thoroughly considered and carefully navigated. Right of way acquisition is complicated by the narrow and dense historic streetscape of downtowns and villages in the region. The majority of our town and rural village centers were built out in the 18<sup>th</sup> and 19<sup>th</sup> centuries, and homes and roadways were laid out in a dense pattern of development intended to accommodate people walking or riding a horse, not motor vehicle traffic. This is compounded by national standards, outlined in the Manual Uniform of Traffic Control Devices (MUTCD), designed primarily with sprawling, 20th century suburban subdivisions in mind, often requiring much more space for transportation infrastructure than is reasonably available in our historic towns and villages. These Federal Highway Administration (FHWA) standards significantly complicates bicycle and pedestrian infrastructure projects and can create conflict between historic properties and the municipal right of way. These factors must be carefully considered when planning for sidewalks and bike lanes.

Navigating the State highway right of way is another significant challenge. Many of our region's villages are centered on state highways. With the exception of Brattleboro, Bellows Falls, and Readsboro, which maintain Class 1 roads in their downtowns, Windham Region towns do not own or maintain the state highway right of way within their downtowns and villages. Towns are very limited in their ability to construct bicycle and pedestrian infrastructure or implement changes aimed at traffic calming on state highways, because such projects require towns to navigate an oftentimes complicated and time-consuming state review and approval process.

Grant funded projects through existing Agency of Transportation programs provides one avenue for towns to improve bicycle and pedestrian infrastructure on state highways in downtowns and village centers. VTrans staff are involved in the design and approval of any proposed infrastructure identified through these state grant programs, providing towns with a more easily navigable process towards implementation and construction of bicycle and pedestrian projects within the state highway right of way.

Scoping studies are a valuable tool available for towns to advance bicycle and pedestrian infrastructure projects. Towns may hire an engineering firm, oftentimes utilizing grant funding, to identify and design preferred solutions to improve walking and biking infrastructure. These studies include significant input from both residents and the Agency of Transportation, and provide towns with detailed plans and cost estimates that better position the town to

seek construction funding.

## TRANSIT

Public transportation is a critical component of meeting the overall transportation needs and climate goals of the Windham Region. Adequate bus and rail service are a vital piece of our overall transportation system, providing needed transportation for those without access to a personal vehicle and reducing dependence on personal vehicle trips. This is an important piece of transportation equity in our region, providing vulnerable transit dependent populations such as the elderly, people with disabilities, and low-income residents needed access to education, employment, health care and all other manner of daily needs. This in turn strengthens the overall vitality of the region.

### BUS SERVICE

Transit service in the Windham Region is provided primarily by Southeast Vermont Transit, widely known as the MOOVer. Southeast Vermont Transit was formed from the merger of Deerfield Valley and Connecticut River Transit in 2015. Easily recognizable by their black and white cow patterned vehicles, the MOOVer provides bus service throughout most of the region. Currently, fixed route service is available between Readsboro and Dover by way of Wilmington and Whitingham in the Deerfield Valley, between Brattleboro and Bellows Falls in the Connecticut River Valley, and along the Route 9 corridor between Brattleboro and Bennington with a connection in Wilmington.



MOOVER BUS  
*Photo Credit: WRC*

In town service exists in both Bellows Falls and Brattleboro, including connections from Brattleboro to Guilford and Hinsdale, NH, and from Bellows Falls to Springfield, White River Junction, and Dartmouth-Hitchcock Hospital. Furthermore, a pilot program running seasonal winter buses from Stratton Mountain to Manchester Center has recently been made permanent.

Despite the overall success of the MOOVer transit service, there still exist unmet transportation needs in the region and the Windham Regional Commission is supportive of continued efforts to expand transit both within the region and to neighboring regions. Fixed route bus service has historically been the primary mode of public transportation service in the region and across Vermont. However, the limitations of fixed route bus service to effectively and efficiently meet the transportation needs of the public are increasingly being recognized and expanding access to alternative modes of transit is an important part of improving the overall transportation landscape.

Substantial portions of the region remain underserved by public transportation, particularly rural towns outside of the Connecticut and Deerfield River Valleys. The WRC supports the expansion of SEVT service wherever possible, however it also recognizes the need for alternative options to fully meet the transportation needs of the region. Local non-profit organizations have begun to help fill this gap in our region, organizations like the various local 'Cares' groups providing some transportation service to underserved communities.

### NEIGHBORHOOD CONNECTIONS ON-DEMAND TRANSPORTATION SERVICE

Neighborhood Connections is a social services organization based in Londonderry in the northwest corner of the Windham Region. Neighborhood Connections recognized the severe impact a lack of transit options had on overall health and vitality for residents of underserved towns along the spine of the Green Mountains. In 2020, Neighborhood Connections launched the Mountain Town Connector, a door to door transit service providing on demand transportation to five towns in the northwest corner of the region. The Mountain Town Connector provides a successful model for other organizations to emulate to meet unmet transportation needs in the Windham Region.

The expansion of micro transit service is another alternative. Micro transit is smaller scale transportation that provides On-Demand, Door-Door to service to riders. Passengers can request a ride, either over the phone or using a smartphone application, and be picked up, sometimes within minutes of having requested a ride, and dropped off directly at their requested destination. Improvements in technology have greatly increased the feasibility of such on-demand services, allowing riders to request a ride and be routed efficiently to their destination using software that identifies available drivers based on other currently scheduled riders. Micro transit service provides a more efficient, convenient, and cost-effective transportation option for riders than traditional fixed route service. Furthermore, the efficiencies made possible by micro transit allow for more effective use of fixed route service over distances where micro transit service is not feasible, improving the transit network as a whole.

As of 2024, the Vermont Agency of Transportation has invested in seven micro transit pilot programs across Vermont, including a service operated by Southeast Vermont transit just north of our region in Windsor. Ridership in the Windsor pilot program has greatly exceeded projections, and the expectation is that similar service will be expanded across Vermont in the coming years. Brattleboro and Rockingham are strong candidates for the expansion micro transit programs.

Interstate transit connections remain a significant gap in the overall transportation network of the Windham Region, most notably the lack of regular service between Brattleboro and the nearby cities of Greenfield, Massachusetts and Keene, New Hampshire. Our location at the corner of three states puts the Windham Region in a unique position within Vermont, and many people travel across state lines each day for employment, education, and healthcare. Greenfield and Keene are the largest out of state destinations for residents of the Windham Region, as well as the most important points of origin for commuters into our region. No bus service currently exists between Brattleboro,

Keene, and Greenfield. A 2022 study commissioned by the Southwest New Hampshire Regional Planning Commission, the Windham Regional Commission's counterpart across the river in Cheshire County, NH, examined the possibility of a future fixed route service connecting Brattleboro and Keene, and received significant public support.

## PASSENGER RAIL SERVICE

In addition to bus service, passenger rail is a critical piece of the transportation landscape of the Region. Currently, the only passenger rail service in the Windham Region is the Amtrak Vermonter line, running once daily each way with stops in both Brattleboro and Bellows Falls, with service north to White River Junction, Montpelier-Berlin, and Essex Junction, as well as south to Greenfield, Northampton, and Springfield, Massachusetts, before continuing onward into Connecticut and New York City. The Vermonter is an important link between our region and popular destinations within Vermont and neighboring states, increasing regional mobility for residents and visitors alike. Passenger rail is an important piece of overall mobility and economic development in the Region, providing a direct connection to our region for potential visitors from nearby major metropolitan areas as well as expanding access to economic opportunities for residents. With the rise of hybrid-remote work schedules in the wake of the Covid-19 pandemic, the importance of these connections has increased and expanding passenger rail service in the region is an important goal of this plan.

Data from Amtrak demonstrates the success of passenger rail in the Windham Region, with ridership in Brattleboro being above average in the larger context of the Vermonter corridor. Ridership data from 2022 counted 14,258 trips originating in Brattleboro, the 2<sup>nd</sup> most of any station in Vermont behind only Essex Junction, and the 4<sup>th</sup> most on the entire Vermonter line, far exceeding the number of riders in much larger cities such as Hartford, Connecticut and Springfield, Massachusetts. The New York City-Brattleboro connection rated as the 2<sup>nd</sup> busiest on the entire line, second only to the NYC-Northampton connection. The success of the Vermonter train in Brattleboro despite the significant limitation of only one daily trip in each direction points to an unmet passenger rail need in Southeastern Vermont.

There are several initiatives to expand passenger rail service within Vermont and the larger New England region. In December of 2023, the Federal Rail Administration announced three planning grants to examine expanded passenger rail in Vermont. This includes a study for expanded service on the Vermonter line, including increased trip frequencies between New York City and White River Junction with up to four daily round trips at both Brattleboro and Bellows Falls, reduced travel time with the goal of saving 90 minutes between Essex Junction and Springfield, Massachusetts, and the extension of the service north to Montreal. This is a major development for passenger rail in our region and would greatly improve the viability of rail as a local and regional commuting option for residents. Increased potential for local ridership would reduce passenger vehicle trips and allow for greater

efficiencies for our regional bus system, improving mobility, expanding regional housing and employment options, and helping the Windham Region achieve its energy goals.

Also relevant to our region are ongoing passenger rail initiatives in neighboring Western Massachusetts, officially known as the ‘Compass Rail Plan’. After several years of study, the Massachusetts Department of Transportation has received funding to begin construction in 2027 of an East-West passenger rail connection between Boston and the Albany, New York through Western Massachusetts. This service will provide up to ten daily round trips between Boston and Albany, with stops in Worcester, Springfield and Pittsfield. Together with expanded north-south service within the Connecticut River Valley, Compass Rail will provide a passenger rail connection between the Windham Region and Boston, the Berkshires, and Upstate New York.

In addition to the Compass Rail Plan, the ongoing Massachusetts ‘Northern Tier Rail Study’ has the potential to provide an even more direct connection to Boston for the Windham Region. This initiative is examining East-West rail service in the northern part of Massachusetts along the Massachusetts Route 2 Corridor, exploring potential for new passenger rail service between Boston, Greenfield, and North Adams. Given the close proximity of Greenfield, this line would provide the most direct passenger rail connection between Boston and the Windham Region.

The Windham Regional Commission strongly supports these ongoing rail initiatives. Expanding passenger rail service is an important piece of improving mobility, promoting economic development and enhancing overall quality of life for the Windham Region.

## FREIGHT

The import and export of goods by truck and rail is a critical piece of the Windham Regional economy and ensuring the safe and efficient movement of goods along our highways and railroads is a vital to ensure residents and businesses have access to needed goods and services. This is closely linked with best practices in town highway roadway and bridge construction and maintenance, and it is important that our region’s roads and bridges are maintained at a level adequate to support necessary freight traffic. Furthermore, freight traffic is a significant contributor to overall emissions from transportation and improving the efficiency and resiliency of the freight sector is necessary to meet the goals outlined in the Vermont Climate Action Plan.

According to the 2021 Vermont Freight Plan, one-third of Vermonters are employed in “freight reliant industries,” defined as businesses within the manufacturing, utilities, construction, wholesale, retail trades, and agriculture sectors. These sectors account for approximately one-third of the State’s total Gross Domestic Product (GDP). As of 2018, truck transport accounted for 84% of all goods moving within, into, and out of Vermont, with rail accounting for a further 15%. In total, 46.7 million tons of freight were moved through the state in 2018, and this number is

expected to increase to 78.7 million tons by 2045. More information on statewide freight trends and future projections is available in the 2021 Vermont Freight Plan.

New England Central Railroad is the largest freight rail company in the Windham Region. New England Central rail lines run the length of the Connecticut River Valley in southeastern Vermont, from the Massachusetts border to White River Junction, then travel northwest to Burlington by way of Montpelier before terminating at the Canadian border. New England Central also provides freight connection to Massachusetts and Connecticut, with lines running south to the major junction with Palmer, MA before continuing to New London, CT. This north-south route also provides freight connection to Boston by way of CSX lines in Massachusetts. Additionally, there is a short section of freight rail owned by Green Mountain Railroad in the Windham Region. This line begins in Bellows Falls and runs northwest parallel with Route 103 through Rockingham, before crossing into Windsor County and continuing on to Rutland.

E-commerce deliveries represent an increasingly large proportion of total freight traffic in the region, and the fulfillment of online orders directly to consumer's homes increased dramatically during the Covid-19 pandemic. While historically freight was moved primarily to major commercial centers in the region, such as Brattleboro, Bellows Falls, and Wilmington, these goods are now being delivered direct to consumers across rural towns. This has significantly increased truck traffic on rural roadways, particular Class 3 town highways that historically did not handle large volumes of commercial vehicles. While the long-term impacts of this trend remain to be seen, initial indications are that commercial vehicle traffic from deliveries has placed an increased burden on rural, unpaved town highways, in particular during winter and mud season, where larger, heavier vehicles may be unable to successfully navigate difficult road conditions. This is a concerning trend within the Windham Region, and it is critical that we work to limit the impact of changing trends in commercial traffic on our region's vulnerable rural roadways.

## FUTURE TRANSPORTATION NEEDS

The future transportation needs for the Windham Region are discussed throughout the Transportation Chapter, and in particular in the Land Use and Transportation, Energy and Transportation, and Transportation Resiliency sections of the chapter. This section of the chapter provides additional information on specific transportation project priorities in the region. The VTrans Capital Program outlines the State's plans for transportation improvements within the next five years. VTrans updates the capital program on an annual basis and it includes highway, bridge, rail, aviation, and public transportation projects. WRC's Transportation Committee provides input and recommendations on prioritizing regionally driven roadway and bridge projects for the VTrans Capital Program. In developing its Capital Program, VTrans considers the following criteria: safety, asset condition,

mobility and connectivity, economic access, resiliency, environment, community, and health access. The following table shows projects in the Windham Region included in the current VTrans Capital Program:

| <b><u>VTrans Capital Program Projects in the Windham Region (2026 - 2029)</u></b>                                                               |
|-------------------------------------------------------------------------------------------------------------------------------------------------|
| <b><u>Bike and Pedestrian Projects</u></b>                                                                                                      |
| • <u>New sidewalk on VT-142 from Royal Road (Morningside Commons) to Route 119 Bridge - BRATTLEBORO STP BP19(17)</u>                            |
| • <u>Algiers Village Sidewalk Scoping Study - GUILFORD STP BP24(21)</u>                                                                         |
| • <u>Newfane Village Sidewalk Construction (VT-30) - NEWFANE STP BP24(10)</u>                                                                   |
| • <u>Reconstruction of School Street Extension sidewalks at Central Elementary School - ROCKINGHAM TAP TA24(06)</u>                             |
| • <u>Wilmington E. Main Street (VT-9) Sidewalk reconstruction from VT-100 to Shaw's Plaza - WILMINGTON STP BP17(13)</u>                         |
| <b><u>Bridge Projects</u></b>                                                                                                                   |
| • <u>Exit 1 Bridge Reconstruction, both northbound and southbound - BRATTLEBORO IM 091-1(82)</u>                                                |
| • <u>Bridge Reconstruction over VT-121, both northbound and southbound - WESTMINSTER IM 091-1(70)</u>                                           |
| • <u>Bridge #42, VT-30 over Winhall River - JAMAICA ER P23-1 (216)</u>                                                                          |
| • <u>Bridge #25, VT-100 over Deerfield River - READSBORO BF 0102(16)</u>                                                                        |
| • <u>Bridge #3, VT-103 - ROCKINGHAM BF 025-1(48)</u>                                                                                            |
| • <u>Bridge #39, Williams Road over GMRR - ROCKINGHAM BO 1442(45)</u>                                                                           |
| • <u>Rehabilitation, Bridge #31 (Intersection of VT-9 &amp; VT-100 in Downtown Wilmington) - WILMINGTON BF 010-1(58)</u>                        |
| • <u>Bridge #54, Western Avenue over Whetstone Brook - BRATTLEBORO BF 2000(28)</u>                                                              |
| • <u>Existing 119 Bridges rehabilitation - BRATTLEBORO-HINSDALE, NH BF 2000(34)</u>                                                             |
| • <u>Rehabilitate Bridge #32 over West River, Depot Street to Jamaica State Park - JAMAICA BO 1442(42)</u>                                      |
| • <u>Rehabilitate Bridge #49, South Newfane Bridge - NEWFANE BO TRUS (9)</u>                                                                    |
| • <u>Bridge #53, Depot Street Bridge - ROCKINGHAM (BELLOWS FALLS) BO 1442(41)</u>                                                               |
| • <u>Bridge #5, Route 121 over Saxtons River - WESTMINSTER BF 0126(14)</u>                                                                      |
| <b><u>Roadway Projects</u></b>                                                                                                                  |
| • <u>I-91 Paving, roughly from West River bridge in Brattleboro to Route 121 Bridge in Westminister - BRATTLEBORO-WESTMINISTER IM 091-1(88)</u> |
| • <u>Resurfacing of I-91 from Massachusetts line to West River bridge - GUILFORD-BRATTLEBORO IM SURF (86)</u>                                   |
| • <u>I-91 paving from Route 121 bridge to Black River - ROCKINGHAM-SPRINGFIELD IM 091-1(89)</u>                                                 |
| • <u>Putney Road Reconstruction - BRATTLEBORO STP 2000(23)</u>                                                                                  |
| • <u>Reconstruct Grout Pond Road - Stratton FLAP(7)</u>                                                                                         |

| <b><u>VTrans Capital Program Projects in the Windham Region (2026 - 2029)</u></b>                                                                                                                                                                                                        |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b><u>Traffic and Safety</u></b>                                                                                                                                                                                                                                                         |
| <ul style="list-style-type: none"> <li>• <u>Replace/Improve Traffic Signal, Reconfigure intersection of US-5 &amp; Old Ferry Road - BRATTLEBORO STPG SGNL (67)</u></li> <li>• <u>Londonderry, VT-100/VT-11 &amp; Middletown Road intersection - LONDONDERRY STP 013-2(16)</u></li> </ul> |
| <b><u>Rail</u></b>                                                                                                                                                                                                                                                                       |
| <ul style="list-style-type: none"> <li>• <u>Preliminary Engineering for bridge improvements on Green Mountain Railroad from Bellows Falls to Rutland - ROCKINGHAM-RUTLAND GMRC (30)</u></li> </ul>                                                                                       |

There were several priority projects recommended by the WRC Transportation Committee that are not included in the current VTrans Capital Program and are listed below for reference. The WRC Transportation Committee will continue to consult with towns regarding transportation project priorities and make recommendations to VTrans on projects that are important for the region.

| <b><u>Additional Regional Priority Transportation Projects as Recommended by WRC Transportation Committee</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• <u>Rockingham Bridge #52, Bridge Street Bridge</u></li> <li>• <u>Grafton, Pettingill Bridge Town Bridge #15G Rt. 121 over Saxtons River at Putnam Forest Rd.</u></li> <li>• <u>Wilmington, Town Bridge #14 on Higley Hill Rd. over Meadow Brook near Haynes Rd.</u></li> <li>• <u>Jamaica, Town Bridge #24 over Ball Mountain Brook on the corner of Depot and Water street in Jamaica Village</u></li> <li>• <u>Brattleboro Western Ave, Rebuild Project</u></li> <li>• <u>Weston Center, VT-100 Traffic Safety project</u></li> </ul> |

## TRANSPORTATION POLICIES

### LAND USE AND TRANSPORTATION

1. Support transportation planning consistent with compact settlement goals, including promoting the incorporation of complete streets principles into planning for compact settlement.
2. Recognize the link between housing and transportation costs and support planning efforts to reduce transportation costs for Windham Region residents, including improved multimodal transportation linkages between residential, commercial and industrial areas.

3. Preserve village character through appropriate design and scale of commercial, industrial, residential, transportation infrastructure and community structures and uses.
4. Preserve and create Right-of-Ways for future transportation linkages between communities, neighborhood services, and other destinations.
5. Avoid extension of roads into and through Rural Conservation lands and discourage habitat fragmentation from town highways.
6. Support improvements to multi modal transportation infrastructure to promote infill of existing Transition/Infill Areas.
7. Support bicycle and pedestrian infrastructure improvements in Downtown Centers, Village Centers, Planned Growth Areas, Village Areas, Transition and Infill Areas, and Resource-Based Recreation Areas.

## ENERGY AND TRANSPORTATION

8. Support planning to reduce car dependence and reduce emissions in the Windham Region.
9. Support implementation of the California Low and No Emission Vehicle Standards consistent with the 2022 Statewide Comprehensive Energy Plan.
10. Support planning and implementation of infrastructure necessary to facilitate the transition to low and no emission vehicles.
11. Support creation of infrastructure for hydrogen cell vehicle fueling.
12. Support expansion of electric vehicle charging infrastructure in the region, in particular in Downtown and Village Centers, as well as along major corridors and in Resource-Based Recreation Areas.
13. Promote the use and adoption of alternative forms of transportation that reduce emissions, including improvements to the public transportation system, promoting walking and biking including electric bicycles and encouraging carpooling through the expansion and promotion of park and ride lots in the region and the use of the Way To Go! Vermont App.

## TRANSPORTATION RESILIENCY

14. Promote the adoption of best practices to ensure that our transportation infrastructure is resilient and able to mitigate the impacts of increasingly severe storms to ensure the safe and efficient function of the

network.

15. Encourage the proper sizing of culverts across the region in accordance with VTrans Hydraulics Manual standards for bankfull width and stream equilibrium and support efforts to upsize existing culverts where necessary or possible.
16. Support best practices in roadway and ditch construction to mitigate the increasingly severe effects of the spring mud season on our roadways.
17. Assist towns with identifying potential funding sources for local projects to improve the resiliency of our transportation network and help in developing competitive grant applications to those programs and with the management of such projects once funded.
18. Support continued efforts to implement the Municipal Roads General Permit (MRGP) across the region and to bring all 'Very High Priority' segments into compliance by 2028.
19. Minimize conflicts between our transportation system and wildlife and encourage the consideration of aquatic organism passage, including the incorporation of natural bottom culverts, as part of road and culvert projects wherever feasible.
20. Encourage towns to adopt clear driveway culvert policies and provide assistance in developing best practices for the management of driveway culverts as part of the larger transportation infrastructure network.
21. Encourage towns to utilize the VTrans Transportation Resiliency Planning Tool (TRPT) in planning for transportation resiliency and continue to train regional stakeholders on the use of the tool.
22. Continue to explore solutions to rising aggregate costs, including advocating for a review of sand and gravel pit permitting at the state level, working with towns and suppliers on evaluating and addressing current market conditions within the scope of our mandate as well as continuing to explore possibilities for the WRC to facilitate bulk purchasing options for the region.

## HIGHWAYS AND BRIDGES

23. Support the implementation of best practices in town highway construction to improve resiliency and efficiency of the Windham Region's transportation infrastructure.
24. Support projects that ensure the adequate and efficient function of our region's highway and bridge infrastructure.

25. Support planning efforts to assist towns in carefully considering the paving of unpaved roads, including providing a cost benefit analysis of long-term construction and maintenance costs of paved vs unpaved roads in accordance with VTrans guidance.
26. Provide support to municipalities when considering the reclassification of state highways to Class 1 town highways.
27. Support efforts to identify and prioritize regional highway and bridge needs through the Vermont Project Selection and Prioritization Process.
28. Support the implementation of infrastructure aimed at calming traffic on our region's roads based on best practices, including the implementation of radar feedback signs, improved line striping, bump outs and other infrastructure where practical or possible.
29. Encourage towns to implement long term capital planning practices in the maintenance of their town highway and bridge infrastructure.
30. Support best practices in the management of Class 4 town highways and encourage towns to adopt bylaws related to the maintenance and improvement of Class 4 roads, in particular in relation to increasing development pressure on our Class 4 town highways.
31. Encourage towns to expand and encourage the incorporation of Class 4 town highways and legal trails as part of our region's outdoor recreation network.
32. Advocate for the funding necessary to repair and improve our region's town highway bridge network, including promoting an equitable distribution of bridge funding to all communities.
33. Work with towns to identify and prioritize funding sources for the improvement of our region's road and bridge network.
34. Encourage best practices in setting speed limits on town highways and provide technical assistance.

## BICYCLE AND PEDESTRIAN

35. Support traffic calming efforts on ~~our rural~~ roadways to encourage bicycle and pedestrian accessibility throughout the region, including but not limited to the installation of radar feedback signs where possible.
36. Support the improvement bicycle and pedestrian infrastructure in the region, including installing and extending new sidewalks where feasible, incorporating bike lanes into our existing roadways, the construction of off-road mixed-use paths where on road infrastructure is not possible, as well as the

incorporation of rectangular rapid flashing beacons and raised crossings into crosswalks.

37. Support the creation and expansion of bicycle infrastructure on the region's primary transportation corridors, in particular along the proposed Route 5 Bicycle Corridor, as well as along Route 30 and Route 100.
38. Encourage the consideration and incorporation of Complete Streets principles into all roadway and bridge construction projects wherever possible.
39. Recognize bicycle and pedestrian connectivity as an important part of overall downtown and village vibrancy in the Windham Region and encourage the adoption of best practices for bicycle and pedestrian infrastructure in our Downtown and Village Centers, Planned Growth Areas, Village Areas, and Transition and Infill Areas.
40. Support clear and enforceable municipal policies on winter sidewalk maintenance responsibilities in the region.
41. Support efforts to update and improve statewide policies on traffic calming and bicycle and pedestrian infrastructure on state highways in our downtowns and villages and help towns when seeking improvements on state highways in their Downtown and Village Centers.
42. Work with towns to identify local priorities, gaps within the existing network and planning for the construction of new, as well as the expansion and improvement of existing, bicycle and pedestrian infrastructure.
43. Provide assistance to towns with applications for funding to the VTrans Transportation Alternatives and Bicycle and Pedestrian programs in support of new bicycle and pedestrian planning and implementation projects.
44. Encourage the consideration of equity for all users, in particular vulnerable populations such older adults, disabled persons, low income residents and people of color, when planning for and implementing bicycle and pedestrian projects.

## TRANSIT

45. Support the expansion and creation of micro transit services in the region wherever feasible, ~~including the ongoing Brattleboro 'Micro-Moo' pilot.~~
46. Support maintaining existing Southeast Vermont Transit service and the expansion of SEVT services

wherever possible.

47. Support efforts to extend bus service along the Route 30 corridor between Brattleboro and Manchester.
48. Support the expansion of transit both within the region and to neighboring regions, including the extension of bus service from Brattleboro to Keene, NH and Greenfield, Mass.
49. Support the exploration, implementation and expansion of alternative on-demand transit services to towns in the region currently unserved by Southeast Vermont Transit.
50. Consider the needs of transit dependent populations when planning for public transit service in the region.
51. Support the maintenance and improvement of existing passenger rail infrastructure in the region, including efforts to rehabilitate the historic Bellows Falls train station.
52. Support the expansion of passenger rail service in the region, including efforts to extend the Valley Flyer service from Greenfield, Mass to Brattleboro and Bellows Falls and the addition of more daily trips on the existing Vermonter service.
53. When possible, support ongoing efforts to implement East-West rail in Western Massachusetts, including the Northern Tier service between Greenfield and Boston, to provide the Windham Region passenger rail access to Boston.

## FREIGHT

54. Promote rail freight as a preferred alternative to truck freight when possible.
55. Maintain, improve, and expand passenger and freight rail services.
56. Encourage businesses and industries with high freight demands to locate within the rail corridor, improving mobility of goods by rail.
57. Work with towns to evaluate the impact of increased E-commerce traffic on town highways and encourage best practices to limit negative impacts whenever possible.