TRANSPORTATION

Transportation in South Burlington must serve the needs of pedestrians, wheelchair-users, bicyclists, pedestrians, public transit users, air travelers, commercial vehicles, and passenger vehicles. South Burlington's street network was developed almost exclusively to meet the needs of passenger vehicles with the goal of moving people and goods quickly and efficiently through the city. Infrastructure for other modes of transportation have been retrofitted or included in recent projects, but has remained a secondary priority, with notable exceptions of the shared use path system, new streets in City Center, and some of the more recent neighborhoods.

As we transition to more sustainable modes of travel and be inclusive to other transportation preferences, a focus on through-put for vehicles can no longer be South Burlington's priority. Establishing a strong sense of place and community for South Burlington and advancing high-value land development patterns have long been goals expressed by residents. Meeting these goals relies on slowing vehicle traffic, encouraging pedestrian-scale commercial areas and housing, siting destinations in close proximity to housing, and connecting different parts of the city with safe, comfortable, and direct multi-modal transportation options.

We also recognize that South Burlington is a regional node for road, rail, and air transportation, and must ensure that access to and across these systems is considered in transportation planning for the functioning of the regional transportation network.

Transportation is the top contributor to greenhouse gas emissions in South Burlington. Transitioning to cleaner modes of transportation, reducing vehicle miles travelled, and accelerating the switch to electric and plug-in hybrid vehicles are key components of the City's Climate Action Plan.

OBJECTIVES

- Complete the network for bike/pedestrian travel by connecting shared use paths, pedestrian trails, and roadways
- Reduce vehicle miles travelled by 2.5% annually through 2030
- Prioritize infrastructure investments in existing and new neighborhoods that improve pedestrian, bicycle, transit, and carpool access and support neighborhood connectivity
- Support access to and function of regionally-significant transportation systems consistently with the land use objectives of this Plan

Strategies [incomplete]

- Improve safety on City streets for vulnerable users including bicyclists, pedestrians, children, individuals with disabilities, and other non-vehicular roadway users
- Implement traffic-calming and signage on local roads to encourage bike/ped usage and improve safety
- Update Land Development Regulations and City Ordinances to ensure that transportation needs created by new development are accommodated consistently with the objectives of this Plan

INVENTORY, ANALYSIS, & CHALLENGES

Road Transportation Network. Several major roadways, including I-89, I-189, Shelburne Road (U.S. Route 7), and Williston Road (U.S. Route 2), travel directly to and through South Burlington. The intersections of these roads are some of the busiest in the state. As travel needs continue changing, South Burlington is constantly reevaluating how traffic moves through the city, where arterial traffic should move efficiently in and out of the city, and where traffic should be designed to slow and be more pedestrian-oriented.

Two interstate highways, I-89 and I-189, serve as the backbone of regional and statewide vehicular transportation and double as short-haul connectors between South Burlington and nearby communities. However, these roads are also a divider, splitting South Burlington into sections with difficult interconnectivity.

South Burlington's primary road network has existed and remained mostly unchanged for almost two hundred years. Nearly all of the city's major roadways have existed since the mid-19th century, including Dorset Street, Spear Street, Shelburne Road, Hinesburg Road, Swift Street, and Williston Road. The only significant additions have been the Interstate highways, Kennedy Drive, Kimball Ave, Nowland Farm Road, and Fayette Drive. Over time, many of the historic roads were widened and made more direct, forming the basis of our current road network.

With the advent of cars and trucks in the early 20th century, four major arterial roads were expanded to move passenger vehicles through the city as quickly as possible. Shelburne Road is a multi-lane arterial serving Vermont's western corridor to I-189 and Burlington. Kennedy Drive is also a multi-lane arterial that connects I-189 to Hinesburg Road and Williston Road around our core area. Hinesburg Road (VT Route 116) provides primary access between South Burlington and communities to the southeast. Williston Road varies between a multi-lane and two-lane roadway which, again, historically served as a through-route from Burlington to communities to the east.

Different sections of the arterial roads serve different purposes, varying in use from the outer edges to the center of the city. For Williston Road to serve people living, working, shopping, and playing in South Burlington, especially in City Center, it must be re-oriented to local and non-vehicular users. East of Kennedy Drive, it should facilitate more through traffic. Hinesburg Road north of I-89 travels through established residential neighborhoods, new residential and mixed-use areas, and connects to Tilley Drive, which primarily serves medical and office buildings. South of I-89, Hinesburg Road connects to the Town of Hinesburg and southeast and currently focuses on serving through-traffic, despite increased residential development and changing traffic patterns and user needs. Shelburne Road serves both as a major north-south corridor for the Champlain Valley, and neighborhood needs near Farrell Street, the Orchards neighborhood, and residential areas on both sides of Shelburne Road.

Two additional north-south corridors, Dorset Street and Spear Street, serve commercial areas and residential areas. Dorset Street is the primary transportation route to the high school and middle school campus from City Center, the Northwest Neighborhoods, and from the south. Between Kennedy Drive and Williston Road, Dorset Street functions like an arterial: it is multi-lane, serves significant commercial development, and has a wide shared use path off the street. This section was expanded as an investment in the early infrastructure of City Center in the 1980s. It is now showing its age and reinvestment is required to improve multi-modal safety and multi-modal access to the school property. South of Kennedy Drive, Dorset functions as a collector for residential areas. Similarly, Spear Street serves primarily residential areas to the south, UVM properties and the East Terrace area to the north, and serves as a connection option between the City Center area and southern parts of Shelburne Road in

tandem with Swift Street and Allen Road. New pedestrian and bike infrastructure investment in this corridor is critical to connect residential areas like South Village to the city's commercial cores.

Three key two-lane roads, Airport Parkway, White Street, and Airport Drive, serve as the primary link between South Burlington and Essex/Colchester, including a crossing over the Winooski River (as Lime Kiln Road), and as a direct route to the Burlington International Airport. Currently, these streets pass through the low-density Chamberlin neighborhood. Functionally, these streets, especially White Street, need to serve both the community and the airport and should be modified to calm traffic on neighborhood streets, improve pedestrian and bike travel options, and direct most traffic to the airport onto Airport Parkway. The City has planned for Airport Parkway and Airport Drive to be re-aligned away from the neighborhood, funnel traffic to the airport with less disruption to the neighborhood, and delineate between airport and neighborhood uses.

The City recently participated in a corridor study looking specifically at the utility, needs, and alternatives associated with I-89 and I-189 through Chittenden County and beyond. The study examined short, medium, and long term transportation needs in the corridor through the lens of local and regional land use policy objectives. The study presented multiple core recommendations, including short- and medium-term safety improvements to the Exit 14 and transportation demand management techniques to meet existing and anticipated inter-municipal transportation needs. It also examined adding connections at Exit 13 and/or installation of a new Exit 12B at Hinesburg Road, and recommended these major capital projects be considered only after the execution of other recommendations. The policy of this Plan, consistent with the corridor study, is to retain physical space for these possible future projects, but to not pursue them until other projects identified are implemented and evaluated.

Other streets currently have a more local function and need to continue to serve those needs. Some serve important local connections with our neighboring municipalities, like Patchen Road to Burlington near the Burlington–Winooski border. The Patchen Road bridge over I-89 is one of two main roadway connections to Burlington from the Williston Road area of South Burlington. Other large streets like Dorset Street south of I-89, Spear Street, Nowland Farm Road, Cheesefactory Road, and Swift Street primarily serve residential traffic.

Multiple User Types. Transportation in South Burlington must continue to shift to encourage all types of roadway users, including pedestrians, bicyclists, wheelchair and scooter users, and transit riders. Modifications of the road network are necessary to accommodate these often more vulnerable users. While facilities on or along roadways are needed, the City needs to emphasize off-street bike and pedestrian paths. Separated facilities are more welcoming and inclusive for pedestrians and bicyclists of all ages and abilities who may be less comfortable using a sidewalk, bike lane, or path adjacent to a road.

The City is including safe passage for pedestrians and bicyclists when constructing, modifying, and/or upgrading roadways. Different facilities are necessary for different types of roadways and for a variety of user needs. Along arterial streets, separate or shared facilities for bicycle and pedestrian use must be provided for actual and perceived safety. On collector streets, bike and pedestrian routes should, at minimum, be well-signed and painted lines should separate bike lanes from vehicle lanes. On local streets, lower traffic volumes and speeds require less separation between bikes, pedestrians, and

vehicles, but good signage can indicate routes for bicyclists and pedestrians and remind drivers of the presence of other users.

To promote use and motivate user behavior change, pedestrian and bicycle routes generally should follow direct travel routes (rather than only paralleling roadways) and should be designed to reduce conflicts with motorized vehicles. Sidewalks should be constructed on both sides of arterial streets and at least one side of collector streets and local streets. Streets with sidewalks on one side must have adequate crossing opportunities to reach transit stops, schools, residences, and pedestrian-scale commercial developments. All signalized intersections must include a dedicated pedestrian phase to provide adequate safety and time for users to cross any type of street.

Currently, the transportation network has approximately 13 miles of on-road bike lanes (varying in width and separation from the vehicle lanes), 22 miles of shared use paths (typically eight- to ten-feet wide), and 50 miles of sidewalks (used by both bikes and pedestrians). The lanes, paths, and sidewalks are not always well connected to each other; additional connections are required to complete the non-vehicle transportation network. For example, it is very inefficient to travel from the Shelburne Road corridor to City Center by bike or transit as key connections are either missing or time-consuming and difficult due to I-89, transit line options, and/or local topography. In addition, often, sidewalks and paths constructed with new development end at parcel boundaries and create gaps in the bicycle and pedestrian network. These gaps make new facilities much less functional. Major sections of Spear Street, Williston Road, Allen Road, Airport Parkway, Kimball Avenue, and Swift Street lack sidewalks entirely and force vulnerable users to share space with fast-moving vehicles or traverse uneven ground along the roadway.

One major underdeveloped bike/ped connection is over I-89 along Williston Road. The current crosswalks and sidewalks require pedestrians and bicyclists to navigate the entrance and exit ramps from I-89 North and South. With continuing development of housing in City Center to the east, redevelopment of commercial spaces on both sides, and the location of large educational and institutional employers (UVM and UVM-MC) to the west, improvement of pedestrian and bike travel over I-89 is critical. The City has received significant federal funding and is currently designing a bicycle and pedestrian bridge over I-89 separated from Williston Road called the East-West Crossing. This will make travel safer, easier, and more enjoyable while also connecting destinations like the University Mall and the Quarry Hill residential area.

The University of Vermont and University of Vermont Medical Center must be involved with pedestrian and bicycle planning, especially along Spear Street and with the East-West Crossing. They are major origins and destinations for students, faculty, staff, and medical center users. As housing partnerships continue in City Center, more people studying and working at UVM will live in South Burlington and commute to Burlington and to the UVM-MC buildings on Tilley Drive.

Pedestrian travel must also be supported by land use policies encouraging dense mixed-use development. Enabling residents to walk to basic services, retail and restaurant options, and entertainment naturally increases pedestrian travel rates. Compact, interconnected city centers create a more pedestrian friendly environment than linear strip development patterns oriented to arterial roadways.

Transit Services. Transit best serves well-planned, intensively-used compact areas. Continued development of City Center will increase the need for public transit routes and frequency in the Williston Road/Dorset Street/Market Street area. Currently, Green Mountain Transit (GMT) provides transit service throughout much of the greater Chittenden County region through a network of approximately twenty bus routes with its central hub in downtown Burlington. GMT is funded through annual dues from its member municipalities, state and federal programs, and fares. Three fixed routes serve the City of South Burlington: #1 Williston, #6 Shelburne Road, and #11 Airport. There is also direct service from Burlington to Tilley Drive. However, no internal circulation routes exist within South Burlington, and there is no direct connection from Shelburne Road to City Center, Kennedy Drive, or Tilley Drive.

Until transit options are expanded, higher intensity development should be directed towards areas with existing bus service. To date, development has occurred and will continue to occur in areas not presently well served by transit, like Tilley Drive, new senior living facilities, and Meadowland Business Park. GMT and the City will need to both plan for meeting these needs and strategically funnel development along existing transit corridors.

At the site level, specific site plan or subdivision applications should be carefully reviewed with an eye toward shelters for transit users and possible bus stop locations.

Access Management. Access management can greatly improve the safety and efficiency of arterial streets for both vehicles and for non-motorized users by reducing the conflict between through, local and turning traffic through the limiting of curb cuts and strategically placing vehicular access points off of busier roadways. On arterial streets, reducing curb cuts improves safety for bicyclists and prioritizes "through" traffic over access to frontage properties. The general pattern of existing and approved developments on Kennedy Drive and Kimball Avenue epitomizes a reasonable configuration of an arterial highway (i.e., few curb cuts and provision of service roads). Along Williston Road and Shelburne Road, older development patterns and uncoordinated development has created conflict between "to" and "through" traffic, making changing access points difficult. Improvements like installation of proper signing, striping, and control equipment can improve safety. Parallel access roads, such as San Remo Drive, can provide access to development areas off of a main transportation corridor, reducing the hazard of traffic turning across bike lanes, sidewalks, and shared use paths. South Burlington has adopted regulations requiring access management practices during development projects and will continue to improve bike lane and traffic safety through these and similar measures.

Air Transportation. Burlington International Airport (BTV), a joint civil-military public airport, is managed by the City of Burlington and the Federal government. The airport sits on nearly 950 acres in the northeastern quadrant of South Burlington. The Airport serves commercial passenger flights, general aviation, and military flights. Both major commercial parcel carriers (UPS Airlines and FedEx Express) fly into BTV, providing service for much of northern Vermont. Two military installations are based at the airport: Burlington Air National Guard Base 158th Fighter Wing and the Army Aviation Support Facility (AASF) of the Vermont Army National Guard. In total, the Airport reported **** enplanements in 2023, making it one of the busier regional airports in New England. The Airport Master Plan, most recently

completed through 2030, documents the facility's existing status as well as future proposals through the next 20 years.

BTV is vital to economic development and transportation for Vermont. In economic development and transportation, the interests of the City and the Airport are very closely aligned. Improved roads and transit service in the City generally enhance use of the Airport, and can alleviate impacts on the Chamberlin neighborhood. The attraction of further light industry (and associated jobs) to the City will depend on proximity to an airfield with the broadest possible range of air service.

The City and the Airport have taken concrete actions in recent years to improve coordination and communication between the two entities. Most notable is the agreed-upon policy change for sound mitigation from the buyout program (which removed over 200 nearby homes) to a sound insulation program that reinvests in the neighborhood. Open collaboration can result in more effective, just, and equitable process and outcomes on key issues like noise, traffic, and airport use, and opportunities like innovation and job growth.

Rail Transportation. The Vermont Railway and the Central Vermont Railway both maintain tracks through South Burlington. These routes are presently used on a limited basis for freight service and summer tourist trains. Amtrak commuter rail service between New York City and Burlington via Albany, Rutland, Middlebury, and Vergennes (among other stops) was reestablished in 2022, serving a transportation need for Chittenden County residents by making travel to New York more direct. Additional Amtrak service travels through Vermont to Massachusetts and then to New York from the Essex Junction station. Future goals include extending this service to Montreal, which presents additional opportunity to connect South Burlington to its larger neighbors.

The Vermont Railway, which parallels Route 7, also has potential for direct service to the commercially-zoned properties fronting its east side. Rail siding potential for these properties should be maintained wherever feasible in the layout of proposed development. As the intensity of development increases on the lands west of the tracks, improvements to at-grade crossings (Bartlett Bay Road, Holmes Road, Inn Road) may be necessary.

ADDITIONAL RESOURCES

- Garden Street Project Definition Report (2015)
- Williston Road Transportation Network Study (2015)
- Williston Road Complete Streets Study (2012)
- Shelburne Road Corridor Study (2012)
- I-89 Exit 12B Circulation Study & Analysis Reports (2010, 2011)
- US Route 2 Corridor Transportation Management Plan (2008)
- Dorset Street Corridor Study (2007)
- Spear Street Corridor Study (2004)