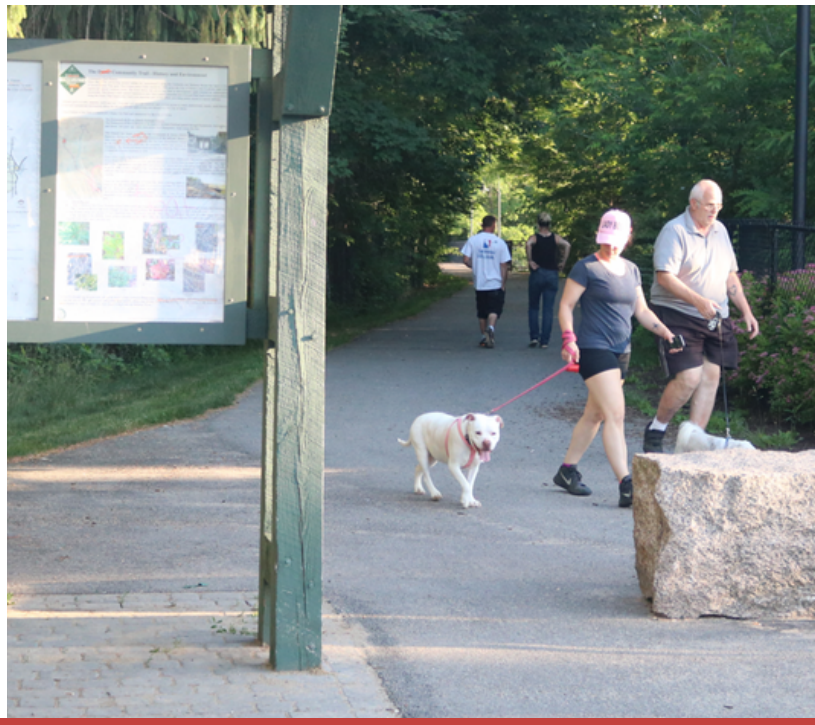


SRPC

ACTIVE TRANSPORTATION PLAN

ACCEPTED: May XX, 2024

2024

STRAFFORD
Regional Planning Commission

Executive Summary

This Active Transportation Plan considers needs, benefits, and potential strategies for improving non-motorized transportation in the Strafford Region of New Hampshire. It establishes a framework of goals and many prioritized implementation strategies for achieving those goals. Input from the public and from municipal staff and representatives on Strafford Regional Planning Commission's committees was instrumental to this plan. While the transportation network in Southern New Hampshire is dominated by automotive travel, active transportation has emerged as a major planning and equity issue. Strafford Regional Planning Commission hopes this plan supports local, regional, and state efforts to make the transportation system safer, more accessible, and more attractive for active transportation and multimodal users.

Appreciation and Acknowledgements

This first-ever plan for the Strafford Region would not have been made possible without our Steering Committee, comprised of local experts and advocates for active transportation, as well as some of our dedicated volunteers who participate in our planning efforts across the organization's various program areas. These individuals are:

- Scott Bogle, Rockingham Planning Commission
- Michael Bobinsky, City of Somersworth
- Amber Hall, City of Somersworth
- Mikayla Jerominek, Town of Newmarket
- Katrin Kasper, Town of Lee
- Noreen McDonald, Cotton Valley Rail Trail Association
- Bart McDonough, Town of Newmarket

We extend our appreciation to our participants in our workshops, members of the Technical Advisory Committee, regional transportation partners at COAST and UNH Wildcat, participants in our workshops, and state partners at the New Hampshire Department of Transportation, and SRPC staff.

Lastly, we wish to thank participants of the survey conducted over the summer of 2022. We received nearly 250 responses from across the region but also from commuters outside the region.

Introduction

Who is SRPC? What is an MPO/RPC?

Strafford Regional Planning Commission is designated as a Metropolitan Planning Organization (MPO). MPOs are established for people to directly influence transportation decisions and improvement projects where they live and work. MPOs are governed by representatives appointed by cities and towns in a large geographic region. Representatives review data on current and future changes, discuss development policies, and develop regional plans. The Strafford region MPO is centered around Dover, Somersworth, and Rochester.

MPOs are a forum for regional transportation decision-making. They give people an opportunity to speak directly about the development of their communities. Anyone can attend MPO meetings or contact staff with questions at any time. Your perspective and experience matter. If more voices are part of the conversation about regional development, that makes policies, decisions, and projects more effective and representative.

MPOs develop solutions to regional transportation problems and address other important issues such as land use, air quality, energy, economic development, commerce, and quality of life. This primarily takes the form of planning policies, goals, and objectives that guide the funding of transportation infrastructure improvement projects. As an example, the Strafford MPO advocates for making roads safer for biking, walking, and public transit as well as cars and trucks.

FIGURE 1 - SRPC STAFF AND TAC MEMBERS ARE SEEN AT THE SEPTEMBER 2023 WORKSHOP DISCUSSING THE CONNECTIVITY, DATA COLLECTION, AND PROJECT READINESS GOALS OF THE PLAN. SOURCE: SPRC.

What is Bicycle and Pedestrian Planning?

What is Active Transportation Planning?

As explained by the Active Transportation Alliance, "An Active Transportation Plan is a comprehensive set of strategies to ensure better options for biking, walking, and transit. Active Transportation Plans include recommendations for prioritizing infrastructure improvements and outline recommendations for new policies, processes, and infrastructure based on public and stakeholder input."[1]

Why is this important?

Active Transportation[2]...

- Directly replaces motor vehicle miles traveled.
- Conserves fuel and reduced vehicle emissions.
- Bridges the First- and Last-Mile Gap, a term used to describe the means required to start or end a trip from the door to the transit access stop and vice versa.[3]
- Promotes individual and public health.
- Includes bicycles, electric bikes, wheelchairs, scooters, and walking, both with and without assistive devices.

While this document is the first iteration of the Strafford Regional Planning Commission's Active Transportation Plan, planning for and incorporating active transportation in SRPC documents has been consistent in SRPC's role as a Metropolitan Planning Organization. This plan will complement other SRPC documents like the Metropolitan Transportation Plan (MTP) and statewide documents like the Ten-Year Plan, Statewide Transportation Improvement Program ((S)TIP), and the state's newest Pedestrian & Bicycle Plan, released in 2023.

The purpose of the Active Transportation Plan is to outline the region's growing interest in bicycle and pedestrian travel and how best to incentivize this mode of transportation and how to do so in a way that is inclusive for all ages and ability levels. This plan sets goals, strategies, and benchmarks for implementation. There are various components of this program including: bicycle and pedestrian data collection, analysis, and inventorying of current projects, and ongoing climate assessment for desire for projects centered around active transportation.

[1] Active Transportation Alliance. https://atpolicy.org/active-transportation-plans-index/

[2] US Dept. of Energy Alternative Fuels Data Center. https://afdc.energy.gov/conserve/active_transportation.html

[3] US Dept. of Energy Alternative Fuels Data Center. https://afdc.energy.gov/glossary.html

Active Transportation Plan Process

Ongoing

Data Collection

Staff uses infrared counters on the region's trails and sidewalks, with some supplemental ACS commuting data and primary information from municipalities for context

Spring-Summer 2022

Release of Survey

Nearly 250 residents expressed their likes of walking and biking in the region and identified key infrastructure and areas of improvement

Summer 2023

Research and Drafting of Plan

September 2023

Goals workshop with TAC and Steering Committee

Workshop attendees prioritized draft goals and proposed additional strategies

November-December 2023

Final Drafting

2024

Adoption

Fall-Winter 2022-23

Formation and Meetings with Steering Committee

Comprised of known bicycle and pedestrian advocates, interregional partners, SRPC commissioners, and interested residents

What Happens Next?

The program will be implemented by SRPC and community leaders, but implementation on a larger scale is a multi-level approach, involving communities, organizations, agencies, and funding sources.

Key stakeholders include:

- SRPC's 18 communities and their residents, boards, and staff
- New Hampshire Department of Transportation
- Bike Walk Alliance of New Hampshire
- Seacoast Area Bike Riders
- Cooperative Alliance for Seacoast Transportation (COAST) and UNH Wildcat, the region's primary transit providers
- Housing advocates, such as the Greater Seacoast Workforce Housing Coalition
- Area businesses and employers

Funding sources include:

- SPRC, through technical assistance, data collection, and connections to other funding sources.
- Federal funding programs administered by NHDOT
  - Transportation Alternatives Program (TAP).
  - Congestion Mitigation & Air Quality Improvement program (CMAQ).
  - Highway Safety Improvement Program (HSIP).
- Your Municipality's Local Option fee
- Bipartisan Infrastructure Law

FIGURE 2 - THANKS TO TAP FUNDING, THIS SECTION OF PORTLAND STREET IN ROCHESTER WILL HAVE AN ADA-COMPLIANT SIDEWALK SOON. IMAGE SOURCE: GOOGLE (2023)

Implementation

Work is happening all over the region in support of a safer, more extensive network for active transportation. A major role for SRPC is to identify, understand, and promote successful efforts to improve active transportation infrastructure. SRPC also plays a role in bringing together stakeholders to share ideas and address shared barriers. Continuing these regional and community conversations is key to implementing SRPC's Active Transportation Plan.

The implementation matrix at the end of the plan has more detailed actions SRPC will be pursuing with stakeholders in the coming months and years.

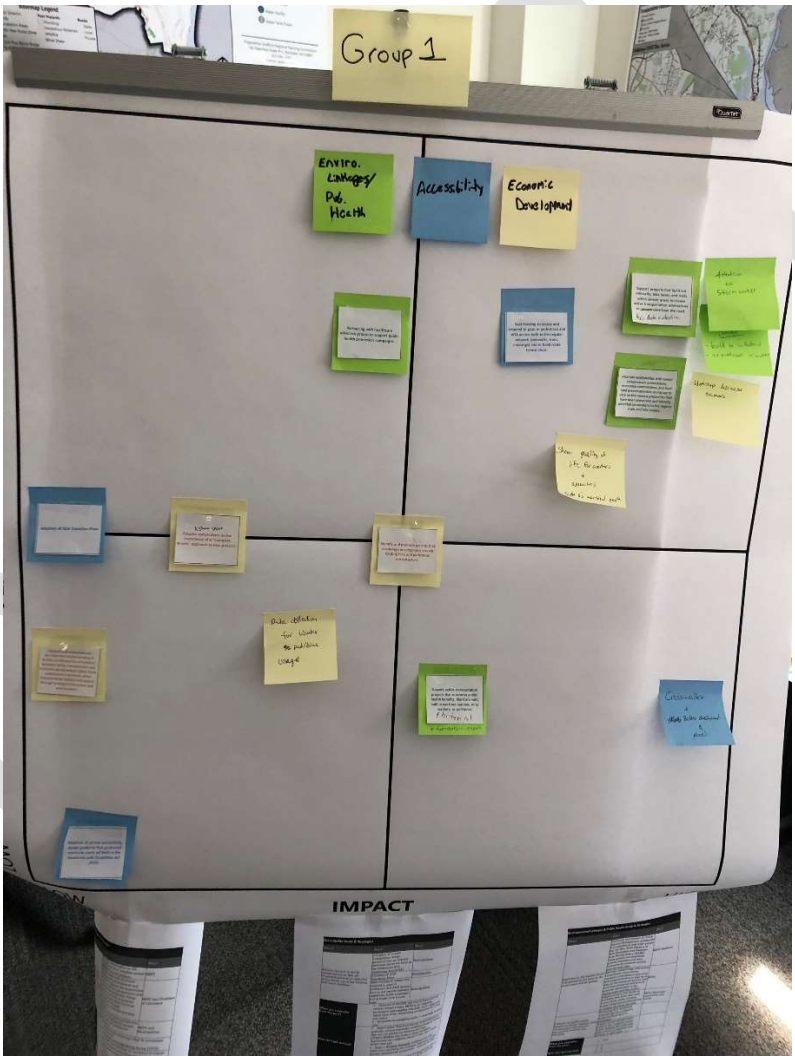


FIGURE 3 - ONE OF THE IMPLEMENTATION MATRIX ACTIVITIES FROM THE SEPTEMBER 2023 WORKSHOP. THE RESULTS HAVE BEEN DIGITIZED AT THE END OF THIS PLAN.

Our Region + Vision

The Strafford Region is comprised of eighteen municipalities totaling a population of 156,145 and is projected to reach 170,000 by 2035. The Strafford Region contains some of the oldest communities in New Hampshire and New England, lending to downtown cores and village centers that were built at the pedestrian scale. They are host to tight communities, lively gatherings, and local businesses. Similarly, miles of country roads and backwoods trails along lakes and hills attract thousands of residents and visitors year-round on foot and on two wheels.

Community	Miles of Sidewalks	Miles of Trails
Barrington		36.3
Brookfield		38.7
Dover	79.3	15.1
Durham	10.5*	34.4
Farmington	4.7	7.6
Lee		6.1
Madbury	0.1	9.8
Middleton		21
Milton	3.2	17.3
New Durham		26.5
Newmarket	3.9	3
Northwood	1.1	27.1
Nottingham		37.2
Rochester	46.3	35.5
Rollinsford	1.4	8
Somersworth	26.4	1.6
Strafford		16.8
Wakefield	1.1	17.6
*Does not include UNH sidewalks and pathways (except College Woods trails)		

TABLE 1 -MILES OF SIDEWALKS AND TRAILS BY MUNICIPALITY.

SOURCE: SRPC 2023.

People

As in much of northern New England, the population of the region is aging. The population over 55 has increased, as has the median age for Carroll, Rockingham, and Strafford counties. The population of youth under 18 has decreased, confirmed by both the US Census Bureau and in declining school enrollment in the school districts of the region. The college-aged population (18 to 24) of the region outside of Durham has also decreased, although the University of New Hampshire (UNH), located in Durham, reports declining enrollment as well.[4]

> *"With all the new construction, of apartments especially, it feels like we are swimming against a serious tide, especially on the bicycle subject. Not against the apartments, just see it as a genuine challenge at a time when there is increasing need for alternate forms of transportation." – Survey Respondent*

Nonetheless, these age groups face challenges and opportunities in New Hampshire and the Strafford Region. Older populations may live in rural, auto-dependent areas and struggle with the ability to age-in-place. Skyrocketing housing costs in the urban cores[5] have prevented older adults from moving to areas where everyday needs can be met without driving and growing families from living where children can safely walk to school.

Some argue that the desire for walkable, car-optional living arrangements are a fad lifestyle pioneered by millennials and Gen Z or Zoomers. The number of households without access to a vehicle has indeed shrunk in the region since 2010. However, these figures include those who do not have access to a vehicle as a result of financial hardship, disability, or another reason. Renters are also more likely to go without a vehicle. Without continued investment in a bikeable and walkable transportation network, and increased investment in public transit (such as COAST[6], the region's primary public transit provider), the region may ultimately become more car-dependent.

[4]University of New Hampshire Office of Institutional Research & Assessment. Undergraduate Enrollment Trends. 2023.

[5] Regional Housing Needs Assessment. Strafford Regional Planning Commission 2023.

[6] 2023 Data Snapshot. Strafford Regional Planning Commission 2023.

Projects

Below is a very general outline for the timeline proportion of major tasks involved of a transportation infrastructure project using federal funds. It is based on a project flow chart from NHDOT's Local Public Agency Manual.[7] Individual phases of a project have unique challenges and are likely to encounter unforeseen obstacles that extend the overall project timeline. Project timelines increase with project complexity and scope; in reality, a two-year schedule for any construction project is ambitious.

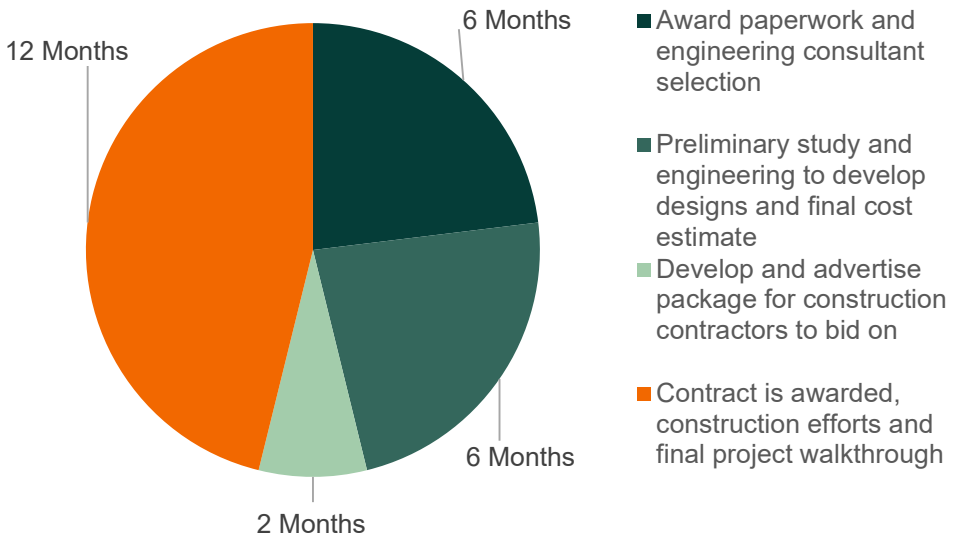


TABLE 2 - APPROXIMATE PROJECT PHASE TIMING IN NEW HAMPSHIRE (TIMELINE FROM FUNDING AWARD) ESTIMATE BY SRPC.

[7] Local Public Agency Manual. New Hampshire Department of Transportation 2017.

Places

The Strafford Region contains one city-maintained and three state-maintained rail trails. A mix of public, private, and non-profit spaces comprise the region's hiking and equestrian trails. Northern New Hampshire, home to the White Mountains, is famously home to thousands of miles of hiking trails. Southern New Hampshire, with more urban centers, naturally would contain fewer trails, but even when adjusted for this size and population density, Strafford County contains the smallest amount of trails in the state, according to New Hampshire Fish & Game's 2022 estimate.[8]

FIGURE 4 - SPRING SCENE OF THE COTTON VALLEY RAIL TRAIL IN BROOKFIELD. SOURCE: SRPC 2023.

For sidewalks and other urban paths, there is base mileage data that is accounted for in the Statewide Asset Data Exchange System (SADES), a state transportation data partnership of the RPCs and UNH. In 2022, SRPC piloted a bicycle and pedestrian counting program. SRPC data staff are attempting to balance baseline data for locations with known users with data requested by municipalities and landowners for their planning purposes. This includes access to potential funding opportunities for further improvements to the active transportation network. For example, data collected on the approach to the shared path along the Little Bay Bridge in June 2023 could indicate 300 to 500 weekly users, with more cyclists than pedestrians in the warmer months. This has interesting implications for a totally off-road bicycle-pedestrian connection from downtown Dover to the soon-to-be renovated General Sullivan bridge. Finer data of other types will be collected in several upcoming SRPC projects, including an accessibility audit of downtown Rochester and a transit access study of the COAST and UNH Wildcat service area.

[8] NH Recreational Trails. GRANIT 2022.

The transit access study will include analysis of barriers to accessing the bus on foot throughout the entire fixed route network.

FIGURE 5 - 2023 SUMMER INTERN TROY IS SEEN INSTALLING TUBING FOR THE CYCLIST COUNT ON THE LITTLE BAY BRIDGE IN JUNE 2023. SOURCE: SRPC 2023.

Survey responses indicated a strong preference for prioritizing trails in the planning efforts going forward from this plan, followed by infrastructure and regional connections. This is confirmed by responses to other survey topics, where respondents indicated that reasons they choose *not* to walk or bike are often because of poor facilities or a lack of facilities altogether. Facilities in this instance would refer to infrastructure specifically for pedestrians and cyclists (sidewalks and trails) and the associated "amenities," such as bike racks, safe crosswalks, or appropriate separation from vehicle traffic.

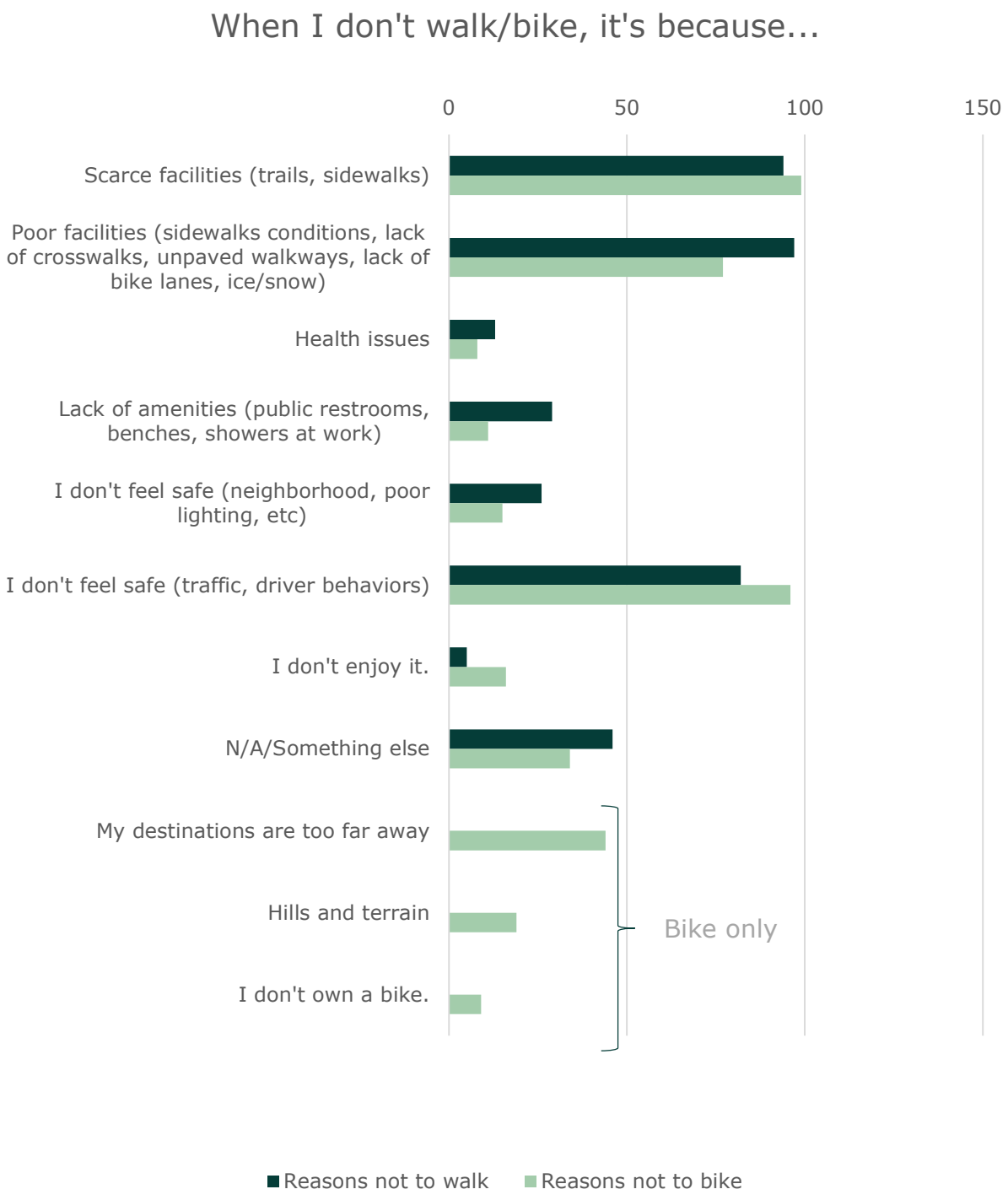
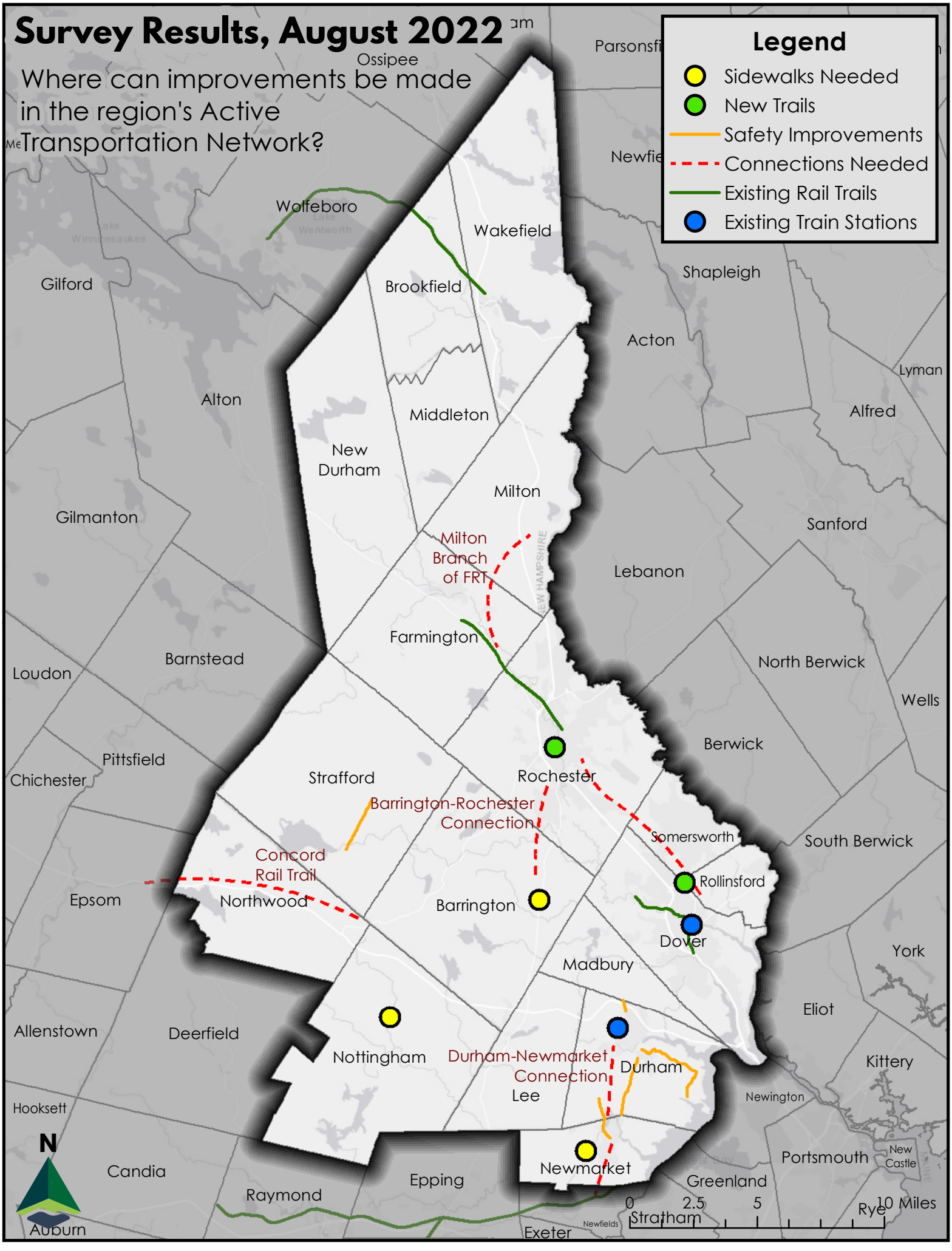


TABLE 3 - SURVEY RESPONSES INDICATING REASONS NOT TO WALK OR BIKE. SOURCE: SRPC 2023.


Survey Results, August 2022
Where can improvements be made in the region's Active Transportation Network?
Legend
Sidewalks Needed
New Trails
Safety Improvements
Connections Needed
Existing Rail Trails
Existing Train Stations
Ossipee
Wolfeboro
Wakefield
Brookfield
Gilford
Shapleigh
Acton
Lyman
Alton
Middleton
Alfred
New Durham
Milton
Gilmanton
Sanford
Milton Branch of FRT
Lebanon
Farmington
Barnstead
Loudon
North Berwick
Wells
Pittsfield
Chichester
Strafford
Rochester
Berwick
Barrington-Rochester Connection
Somersworth
South Berwick
Concord Rail Trail
Rollinsford
Epsom
Northwood
Barrington
Dover
York
Madbury
Eliot
Allenstown
Deerfield
Nottingham
Durham-Newmarket Connection
Durham
Kittery
Lee
Newington
Hooksett
N
Candia
Epping
Newmarket
Portsmouth
New Castle
Greenland
Raymond
Stratham
Rye
Auburn
Exeter
Newfields
0 2.5 5 10 Miles

Vision

The Strafford Regional Planning Commission has always been charged with upholding the balance of rolling New England countryside, charming small-town environments, and increasing prosperity in a growing Seacoast region. Part of this job entails working toward an inclusive and sustainable region that is increasingly car-optional. SRPC will enhance facilitation between communities and the State of New Hampshire, connect with community members directly, and support any and all public transportation efforts.

A short time from now, in a region very, very close by…

People can reach their destinations on foot, by bike or public transportation; regardless of their physical ability. Communities are centered around inviting downtowns that emphasize safety for all users by slowing vehicle traffic and protecting and encouraging active transportation. Communities are connected by a network of multimodal routes that enable more people to complete trips for employment, education, healthcare, recreation, and other critical needs. Improvement of the transportation network is guided by philosophies like "Complete Streets", and new housing is clustered around public transit routes and multimodal facilities.

Goals

1. **Safety –** Achieve comfort for active transportation users via infrastructure, amenities, and facilities.

2. **Environmental Improvements & Public Health Connections –** Capitalize on the benefits active transportation can have on the natural environment and air quality. Promote the public health benefits of Active Transportation via education and outreach surrounding facilities and amenities.

3. **Connectivity –** Create a space for local, regional, statewide and bordering state connections to best plan for active transportation linkages and partnerships.

4. **Accessibility –** Remove barriers to active transportation so that all interested users can enjoy existing and future facilities.

5. **Economic Linkages –** Promote connections between active transportation facilities and both housing and local businesses and encourage these considerations in planning new facilities.

6. **Project Readiness –** Detail existing and potential projects and provide strategies and funding options for implementation.

7. **Data Collection & Analysis –** Improve and create programming to ensure that quality data exists as a basis for active transportation planning efforts and improvements.

8. **Educate & Advocate –** Facilitate opportunities for outreach and engagement surrounding active transportation and advocate for related projects and legislation.

Safety

Introduction

Safety is an integral part of the Active Transportation Plan to address concerns of traffic, signage, infrastructure, and the usability of the roadway. This chapter focuses on how vehicle traffic affects where bicyclists and pedestrians can feasibly travel in the region.

The biggest goal of safety is to reduce the risk of crashes resulting in serious injuries or fatalities. To reduce this risk, infrastructure is engineered to assure a pedestrian on a sidewalk is safely separated from the traffic on the roadway as much as possible. However, the roadway designs themselves often determine where we can bike and walk.

FIGURE 6 - BIKE LANE WITH GRATES ON ROUTE 108 NEAR THE DOVER-SOMERSWORTH CITY LINE.

SOURCE: SRPC 2023.

Pedestrians and bicyclists are extremely vulnerable to being injured or killed by vehicles. There must be more requirements to the design of roadways and to expand the pedestrian network of infrastructure. This is evident primarily in the SRPC's most recent "Level of Traffic Stress" (LTS) data that analyzes the amount of stress imposed on a bicycle rider from roadway design and vehicle volumes. This is primarily determined by the speed limit, prevailing speed (the speed cars actually go), the width of the roadway, and the presence of shoulders. A wide shoulder or sidewalk is often a double-edge sword where it provides plenty of room for a

bicyclist to travel but also typically causes cars to speed up past a designated speed limit thereby inducing additional stress to bicyclists/pedestrians.

Existing Conditions

More and more people walk and bike to work, for exercise and recreation – so communities and transportation agencies are investing more in infrastructure improvements for non-motorized users. Municipalities are especially focused on making town centers more walkable and bikeable. But adequate pedestrian infrastructure may not exist along important routes, roads are still designed for high vehicle speeds, and many crossings are unsafe or unfriendly to pedestrians. As a result, there has been a national rise in the number of pedestrian and cyclist injuries and fatalities. In the past 5 years, on average, 9 cyclists or pedestrians have been killed or seriously injured in the region per year.

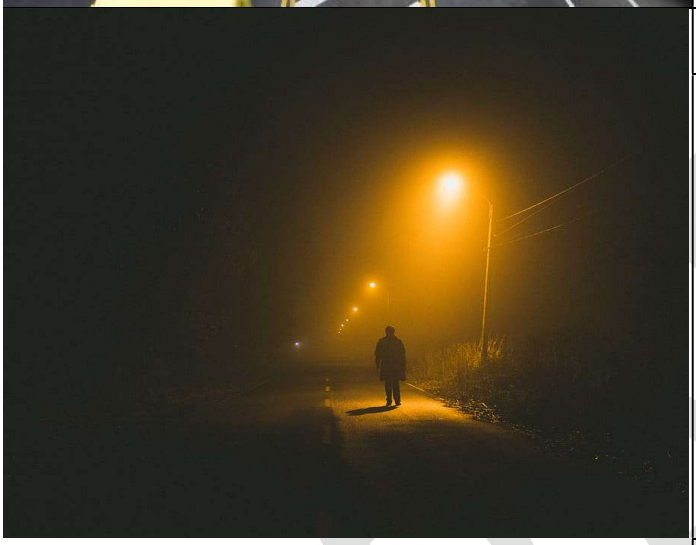
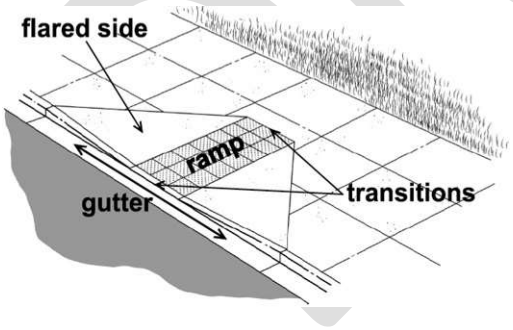
New Hampshire's transportation network is dominated by personal vehicle travel, and safe pedestrian infrastructure is lacking by comparison. This is exemplified by the fatalities rate of pedestrians in New Hampshire. According to the National Highway Traffic Safety Administration (NHTSA), New Hampshire is ranked 39th in pedestrian fatalities rates in the nation. While it is a considerably lower rate than the US average, NH remains higher than neighbors Maine and Massachusetts (see below). While this metric can vary year-over-year, New Hampshire has placed higher than 39th only twice since 2000. Safety is a concern no matter the level of use and with that SRPC is interested in implementation of Vision Zero objectives including but not limited to reducing the number of serious injuries and fatalities from pedestrians/traffic users to zero by a selected date.

Rank	State	Pedestrian Fatality Rate per 100k people
38	New York	1.19
39	**New Hampshire**	**1.17**
40	Pennsylvania	1.12
41	North Dakota	1.05
42	Wyoming	1.03
43	Utah	1.02
44	West Virginia	1.01
45	Nebraska	0.93
46	Wisconsin	0.86
47	Iowa	0.85
48	Minnesota	0.8
49	Idaho	0.77
50	Massachusetts	0.75
51	Maine	0.67
Average	USA	1.98

TABLE 4 – 2020 PEDESTRIAN FATALITIES. SOURCE: NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION (NHTSA).

Lighting is also an important factor to consider for safety. Since most pedestrian and bicyclist traffic in our region occurs along a roadway, effective lighting is needed for motorists to see people on the sidewalk or approaching a crosswalk. Appropriate signage is also important to make drivers aware of their surroundings before they take a right on red or travel through a downtown area. The City of Dover has painted their crosswalks in bright colors to assist with safety, provide community vibrancy, and to celebrate the City's founding. Most recreational paths across the region often close early or around sunset primarily for safety reasons. However, areas downtown or intersections with pedestrian crossings should be properly lit. Since our region get dark earlier in the evening after October, pedestrian lighting is imperative for downtown locations.

SRPC recommends creating off-road separated paths from the roadway to assure maximum safety in a region where cars often dominate the roadway. Bike lanes are also recommended for bicycle infrastructure, as opposed to sharrows, where bicyclists need to share the road with cars. Sharrows limiting the number of bicyclists who feel safe using the road. Bicyclists that travel on sharrows or major routes are typically using their bike for recreational purposes. These typically represent only 1% of people traveling by bicycle in the area.

Best Practices		
Resource		
	[All Ages & Abilities Design Toolbox]	Bicycle Infrastructure Design guide to determine the appropriate facilities for existing roadways. Use [this section] of the tool box to determine an applicable bikeway.
	National Association of City Transportation Officials (NACTO)	
	[Pedestrian Lighting Primer]	Lighting Design Criteria Guide to reduce risk of death to pedestrians addressing illuminance and equipment selection.
	U.S. Department of Transportation – Federal Highway Administration (FHWA)	
	[ADA Best Practices Tool Kit for State and Local Governments: Chapter 6: Curb Ramps and Crossings]	ADA Accessibility Rules and design recommendations for crossing and transitional areas such as curb ramps.
	U.S Department of Justice Civil Rights Division - Americans with Disabilities Act (ADA)	

Accessible Pedestrian Signals: Best Practices	Best practices guide to installation of accessible pedestrian signals.
National Cooperative Highway Research Program (NCHRP)	

Safety Goal: Achieve comfort for active transportation users via infrastructure, amenities, and facilities.	
Strategy	*Priority based on timescale and impact*
(1) Catalog crash incidents and share location-specific inferences about safety improvements with appropriate town and state officials.	High Impact, Medium Feasibility
(2) Identify areas and promote the usage of signage and road features to improve bicyclist safety (i.e. Share the Road signs, bike lanes, sharrows).	High Impact, High Feasibility
(3) Coordinate with municipal departments (i.e., law enforcement/DPW/Rec) to understand safety needs along existing facilities to inform prescriptive solutions for trail improvements and future facilities.	Low Impact, Medium Feasibility
(4) Revisit Level of Traffic Stress data to understand priority areas for safety improvements.	High Impact, Medium Feasibility
(5) Conduct an analysis to determine where to install more bicycle parking facilities. (i.e., use See Click Fix/crowd-sourcing exercise, GIS to determine where they should be)	High Impact, High Feasibility
(6) Conduct an analysis of the alternative transportation facilities are and where are the gaps	High Impact, Medium Feasibility
Who is involved?	Strafford Regional Planning Commission (1, 3 and 4) Municipal Police Departments (1 and 3) Departments of Public Works (3) Recreation Departments (3) Emergency Response (1)

What are examples from the past?	• Ten-Year Plan Improvement Projects (TYP)
	  ○ The first sidewalks for Barrington are programmed in the statewide Ten-Year Plan for construction in 2031.
	• Transportation Alternatives Program (TAP)
	  ○ Somersworth recently completed a project funded through TAP to connect the local high, middle, and elementary schools to the downtown with new sidewalks.
	• Accessibility Audit (SADES)

How can I get started?	• Wear a helmet. Bicycle riders of all ages should be prepared for anything. No rider expects to have an accident. • Install flashing lights on street crossings • Invest in off-road separated paths for pedestrians • Invest in on-road bicycle infrastructure such as bike lanes and appropriate signage. • Reach out to SRPC for data collection needs to make data driven decisions to reach Vison Zero objectives.

Environmental Linkages & Public Health Connections

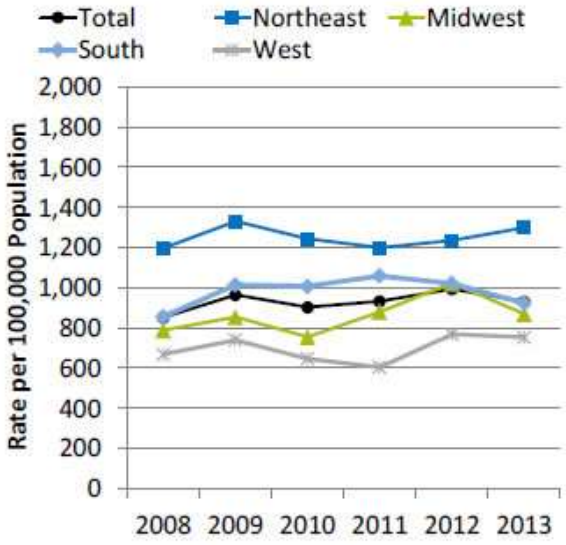
Developing a stronger multimodal network is one strategy for mitigating regional transportation emissions that drive climate change. The movement of people and goods on roadways and rails, including motorists, transit-riders, freight-carriers, bicyclists, and pedestrians (including those with disabilities).

While multi-modal infrastructure exists in some parts of the region, SPRC's northern and western communities don't have the same access to these type of networks as residents of the Dover, Rochester, and Somersworth area. People without access to or ability to drive a personal vehicle may struggle to access critical resources and destinations.

In the United States, the transportation sector is responsible for approximately half of all carbon dioxide (CO2) emissions – which are accelerating climate change. New Hampshire's CO2 emissions have only risen an average of 500,000 metric tons per year since 1970 and are nearly three times the emissions of Vermont. Specifically, motor vehicles are responsible for up to half the chemical by-products that cause smog and ground-level ozone; they release more than 50 percent of hazardous air pollutants; and they emit up to 90 percent of the carbon monoxide found in urban air. These emissions can be reduced by increasing options for alternative transportation and incentivizing people to leave their cars at home.

Vehicle emissions increase the rates of health impacts like asthma. 12% of adult New Hampshire residents have asthma, which is right in the middle of asthma rates for neighboring Maine, Vermont, and Massachusetts. However, this is much higher than the rate of asthma diagnoses for the whole country. About 8% of the entire US population has asthma. As well as this, the rate of Emergency Department visits related to asthma is much higher in the Northeast than among the rest of the country.

Emergency department visit rates for asthma, ages 2-17, by hospital region and income, (data from 2008-2013)[9]



Asthma is one public health issue that is exacerbated by vehicle emissions and will worsen with climate change. Summers are expected to get hotter and young children and older adults are more vulnerable to health impacts from higher temperatures. Reducing emissions that drive climate change is vital for the resilience of our communities. The benefits of physical activity on individual health are well documented. Improving the multimodal network and making it easier and safer for people to switch from driving to active transportation has numerous benefits – for the individual and their community.

[9] *Preventable Emergency Department Visits. Agency for Healthcare Research and Quality 2018.*

Environmental Linkages & Public Health Goals: Capitalize on the benefits active transportation can have on the natural environment and air quality. Promote the public health benefits of Active Transportation via education and outreach surrounding facilities and amenities.	
Strategy	Priority based on timescale and impact
(1) Continued involvement in Travel Demand Management, entities like CommuteSmart, and other groups like the Bike Walk Alliance of New Hampshire and Seacoast Area Bicycle Riders (SABR). These groups and initiatives provide education and even incentives for physical activity and non-auto trips.	**Near Term** High impact
(2) Maintain relationships with towns' conservation commissions, recreation commissions, and local land preservationists to stay up to date on the newest properties that have been preserved and identify potential connections to the regions trails and bike routes.	**Ongoing** Low impact
(3) Support projects that build out sidewalks, bike lanes, and trails within denser areas to create active transportation alternatives or remove cars from the road.	**Ongoing** Medium impact
(4) Partnering with healthcare advocacy groups to support public health promotion campaigns.	**Ongoing** Medium impact
(5) Support active transportation projects that maximize public health benefits, like trails with built in work out stations, mile markers, or split lanes.	**Near Term** Medium impact
(6) Inclusion of stormwater needs and maintenance responsibilities.	**Ongoing** High impact
Who is involved?	(1) SRPC, RPC, COAST, and participating agencies (2) SRPC and municipalities, land trusts (3) Municipalities and SRPC (4) Public health networks, healthcare providers, active transportation advocacy groups (5) SRPC, active transportation advocacy groups (6) Municipalities
What are examples from the past?	• Rochester Riverwalk plan • Dover Community Trail
How can I get started?	Contact your municipality or SRPC with a project idea. Reach out to public health advocates to learn more about community health. Start a CommuteSmart team for your workplace!

Connectivity

Connectivity is the availability of active transportation and how attractive it is to users for recreation, commuting, or another use. It is also rooted in the geographic distribution of places where such uses can occur. Active transportation provides neighborhood-level interaction not found when driving.

Although a resident may live walking distance from work or shopping destinations, they may have to drive to another location to ride their bicycle for recreation if the streets in their neighborhood are unsafe. This presents challenges in fostering a new generation of active transportation users when children are unable to safely learn to cycle in their own neighborhood.

An elderly resident who no longer wishes to drive may live on a rural road with poor shoulders and rely on a family member or other support system to fulfill their social needs.

In New Hampshire, the seasons play a significant role in active transportation. A place may be bikeable or walkable for only part of the year due to unplowed shoulders and sidewalks and muddy trails.

FIGURE 7 - A BIRDING GROUP PARTICIPATES IN A HIKE AT THE NEWHALL EASEMENT IN BARRINGTON. MANY OF BARRINGTON'S TRAILS ARE AMONG THE MOST POPULAR IN THE REGION. BARRINGTON IS LARGELY A CAR-DEPENDENT BEDROOM COMMUNITY AND MANY OF THESE RECREATION OPPORTUNITIES ARE NOT INTEGRATED INTO THE GREATER ACTIVE TRANSPORTATION NETWORK OF THE REGION.
CREDIT: SRPC, CIRCA 2014.

FIGURE 8 - A COAST CUTAWAY VAN USED FOR ITS PARATRANSIT SERVICES SEEN IN WAKEFIELD.
CREDIT: SRPC, APRIL 2011.

FIGURE 9 - SPRING SCENE OF MELTING SNOW ON THE COTTON VALLEY RAIL TRAIL IN BROOKFIELD.
CREDIT: SRPC, APRIL 2023

At the state and regional level, programs like Transportation Alternatives Program (TAP), Congestion Mitigation & Air Quality (CMAQ), and Technical Assistance Program (LTAP) frequently have bicycle-pedestrian components in the proposed projects that do create new pockets of active transportation. The phenomenon known as "induced demand" reminds us that the availability and convenience of alternatives to driving influence our choice to walk, bike or take transit. The opposite is true as well: where new lanes are added and speed is allowed to increase, travelers and commuters are inclined to drive.

In 2006, NHDOT and the state's tourism bureau drafted bicycle routes for the Granite State, issued by tourism region. The state's formal bike routes are largely based on the recreational needs of the state, and are not aimed at those who wish to commute to work on two wheels or even access recreation without driving. Much of the input on these routes came from a series of town hall meetings, which were attended by experienced cyclists. As a result, most of the designated routes would be very stressful for most cyclists to ride on. Designation and identification of routes in New Hampshire is not consistent and does not often indicate where a bikeable road will take a rider. Pennsylvania and New York are the only states in the Northeast to have a numbered bike route system. With the coming LTS data that will be updated for the Transit Access Study, SRPC is interested in pursuing a regional bike route study that will lay the groundwork for a future numbered system and/or better signage for cyclists in southeastern New Hampshire.

"Great trail system, love the rural and urban sections." – Resident reflecting on the Dover Community Trail.

"We have some good trails, but have to drive to reach them."

"…I really prefer paved or smooth bike trails. I have driven to trails like the Minuteman Trail in MA and wish we had some like that here! The Rockingham Trail is OK… but the surface of the trail varies a lot." – one of a few survey responses with reference to the Minuteman Bikeway in suburban Boston.

Many responses to the survey issued for this plan indicated interest in powerline trails as corridors for active transportation. The idea is appealing as linear stretches of land that are separated from the region's road network with clear destinations and options to branch off to natural areas and conserved lands. The space is often wide enough that the paths could further separate pedestrians and cyclists. Powerlines are not uncommon for snowmobile paths in New Hampshire, frequently through arrangements with landowners and utility companies. SRPC could certainly open a dialogue between utilities, snowmobile clubs, and municipalities on behalf of landowners.

New Hampshire has a growing network of rail trail connections that could start sustaining commuting users in addition to recreational users, although the state's 2022 rail trails plan found that nonresident users

of rail trails have as much as three times the economic impact a resident does (see the economic impact section of this plan). The Strafford Region has 17 miles of rail trail, a very small amount compared to the rest of southern New Hampshire.

- 5.2 miles is owned locally (the cities of Dover & Rochester)
- 6.8 is owned by DNCR (all of the Farmington Rec. Rail Trail)
- 4.75 is owned by DOT (the Cotton Valley Rail Trail, although managed by DNCR and maintained by local groups)
- Although none of the trail's mileage is in the Strafford Region, the Rockingham Rec. Rail Trail's eastern-most trailhead is in Newmarket. From there, users can travel all the way to Manchester or other branching trails to Windham and Salem.

No immediate plans exist for expansion of the state rail trail network in the Strafford Region, however:

- Snowmobile clubs have made use of the Recreational Trails Program administered by DNCR in New Hampshire to maintain or upgrade sections of the Cotton Valley Rail Trail and the Farmington Recreation Trail.
- The Dover Community Trail will connect from the northern trailhead at Watson Rd, through the downtown transportation center and local schools. Planned extensions will cross the Bellamy River through the Bellamy Park and reach housing concentrated along NH155. Dover is also developing a foot path branch off the Dover Community trail that will reach all the way to the renovated General Sullivan bridge. The path will be locally funded.
- The East Coast Greenway in New Hampshire is gradually being transitioned off-road like its Maine and Massachusetts counterparts. Progress is being made on the Hampton Branch, which will feed into the Border to Boston trail at the state line in Seabrook. Completion of that trail and progress on Dover's off-road connections to the rehabilitated General Sullivan Bridge would mean that a Dover-Boston bike connection could have fewer than ten on-road miles in the near future.

For commuters and those without a vehicle or who are otherwise unable to drive, the Granite State has historically lacked public transportation options, frequently seen as a result of a lack of funding. In 2020, Vermont allocated $12.69 per capita to the operation and financing of its transit agencies to New Hampshire's $0.59. New Hampshire's highway network lacks east-west connections, making interregional transit options unattractive to potential funders, providers, and users alike. Together, these factors have created an impossible scenario for users looking to move between the urbanized cities in the east, and the Merrimack Valley cities of Concord and Manchester, without use of a personal vehicle. An additional $400,000 was appropriated for public transportation in the state for FY24. SRPC and the Regional Coordinating Council serving the SRPC and Rockingham regions view this as a "down-payment" on a comprehensive transportation network that will need continued investment beyond this.

At the local level, towns and cities may negotiate with developers to include sidewalks to go with new construction or outright require them in their ordinances. These literal and figurative paths to connectivity can be very promising, as in the mixed-use, mixed-density Pointe Place development in Dover (pictured), or the sidewalk connections added to Route 108 in the Riverwoods senior housing in Durham. Sometimes there are barriers to connectivity. RSA 231:113 assigns municipalities the responsibility of maintaining sidewalks in New Hampshire which can be a challenge to towns that do not have resources to build, plow, or repair sidewalks, even where attitudes to walking are favorable.

FIGURE 10 - THE MIXED-USE, MIXED-DENSITY POINTE PLACE DEVELOPMENT IN DOVER.

Municipalities and planning boards have recognized this shift and are recommending policy changes that are encouraging or even mandating inclusion of pedestrian infrastructure in development. First- and last-mile connections are integral to transportation, and the pedestrian infrastructure is simply not an amenity, it is part of the greater transportation network.

Staff reviewed the 18 municipalities' development ordinances relevant to sidewalks and active transportation infrastructure. See below.

Regulation	Barrington	Brookfield	Dover	Durham	Farmington	Lee	Madbury	Middleton	Milton
Zoning Purpose: Is zoning intended to encourage walking?	N	N	Y*	Y*	Y*	N	N	N	N
Zoning Purpose: Is zoning intended to encourage cycling?	N	N	N	N	N	N	N	N	N
Sidewalks: Are sidewalks required on all streets (unless waived)?	N	N	N	N	Y	N	N	N	N
Sidewalks: Are sidewalks required on some streets?	Y	N	Y	N	Y	N	N	N	N
Bike racks: Are bike racks required for certain developments?	N	N	Y	N	N	N	N	N	N
Complete Streets policy or similar?	N	N	Y	N	N	N	N	N	N

Regulation	New Durham	Newmarket	Northwood	Nottingham	Rochester	Rollinsford	Somersworth	Strafford	Wakefield
Zoning Purpose: Is zoning intended to encourage walking?	N	Y	N	N	Y	N	N	N	Y*
Zoning Purpose: Is zoning intended to encourage cycling?	N	N	N	N	N	N	N	N	N
Sidewalks: Are sidewalks required on all streets (unless waived)?	N	N	Y	N	N	Y	N	N	N
Sidewalks: Are sidewalks required on some streets?	N	Y	Y	N	Y	Y	N	N	N
Bike racks: Are bike racks required for certain developments?	N	N	N	N	N	N	N	N	N
Complete Streets policy or similar?	N	N	N	N	N	N	N	N	N

*Only in certain zoning districts.

Complete Streets

A complete streets policy can provide the framework for a municipality to work toward pedestrian- and bicycle-friendly spaces. As seen above, Dover is currently the only municipality to have adopted a Complete Streets Policy.[10] Smart Growth America has a list of criteria for a meaningful, successful, and implementable Complete Streets Policy, updated every year. Complete Streets are not just for cities! Some of the smaller towns in the Strafford Region have expressed interest to SRPC in village centers, often located on state roads of varying traffic volumes. Complete Streets design components can be found on a spectrum that is has applicability to different densities and population sizes. New Hampshire is the only state on the east coast without a statewide Complete Streets policy.

The design guide made for Hampshire County, Massachusetts illustrates this.[11] Hampshire County is not dissimilar to the Strafford Region, both with a population hovering around 160,000, about 70 miles from Boston, and home to flagship state universities. The guide was funded by a grant from the Massachusetts Department of Public Health with local assistance. SRPC will explore interest in a design guide for the region. In the meantime, the Hampshire County design guide may prove a valuable resource in project recommendations. Before the next iteration of the Active Transportation Plan, SRPC will:

- Assist at least two communities with drafting a Complete Streets Policy.
- Explore paths to a design guide if one is deemed necessary.

[10] Complete Streets & Traffic Calming Guidelines. City of Dover 2021.

[11] Urban, Rural, and Suburban Complete Streets Design Manual. Alta Planning + Design 2017.

FIGURE 11 - EVANSVILLE, INDIANA EXAMPLE OF A COMPLETE STREET, SEPARATED BIKE LANE (ITSELF WITH SIGNAGE AND CLEAR DIRECTIONAL CUES), BIKE RACK, AND WIDE SIDEWALK WITH GREENERY AND A WASTE RECEPTACLE. SOURCE: GOOGLE 2023.

Bike Parking

Bike parking is another example of a last-mile connection. Often, bikers are discouraged by a lack of secure bicycle parking at their destination. With so many connections to regional employers, SRPC should gauge interest in providing these amenities to employees and connecting employers with the resources to do so. Secondly, zoning and subdivision regulations for commercial development as well as multi-family residences could include requirements for bicycle parking in the future.

Wayfinding

As previously described, generic "bike route" signs can be counterintuitive or outright ignored if there is no destination or consistent route network. Wayfinding signs can counteract this and are helpful to pedestrians, cyclists, and motorists alike by creating an interesting space. Dover and Rochester have unique wayfinding signage for their communities and Somersworth is expected to pursue them soon. There are a variety of styles that can meet a range of budgets. Funding sources for municipalities or chambers of commerce include Community Development Block Grant (HUD), National Endowment for the Arts, Scenic Byways, and Reconnecting Communities & Neighborhoods (DOT), among others.

Connectivity Goals: Create Spaces for local, regional, state, and interstate connections to best plan for active transportation linkages and partnerships.	
How?	*When?*
(1) Creating inter- and intra-regional active transportation networks by facilitating meetings between municipalities or between states to create conversations surrounding cost-sharing, collaboration, and connectivity.	Ongoing, long-term
(2) Make connections visible or outright advertise them, using existing public transit connections.	Long-term
(3) Identify and prioritize potential inter- and intra-regional connections for existing and future facilities.	Short- and medium-term
(4) Form partnerships to create new facilities.	Ongoing (as needed)

Who is involved?	• NHDOT (1)(4)
	• All RPCs (1)(3)
	• SRPC (1)(3)
	• Transit providers (2)
	• Municipalities
	  ○ Staff (3)
	  ○ Land Use Boards (4)
	• Non-profit organizations (2)(4)
	• Citizens (3)
	  ○ Land donors (4)

What are examples from the past?	• Dover Community Trail • Recreational Trails Program: Federal Highways funds administered by DNCR every year. 2022 awardees include Friends of the Cotton Valley Rail Trail and the Powder Mill Snowmobile Club.
How can I get started?	• Walk and bike! (Where it is safe to do so!) Your neighbors and town officials will be encouraged to direct resources to locations people walk and bike if they have seen residents out and about. • Stay up to date on projects or land that is being discussed by your town's conservation or recreation commissions. You might not even have to attend a meeting – some boards will accept support letters via email or snail mail. SRPC can help you navigate your town's process.

Accessibility

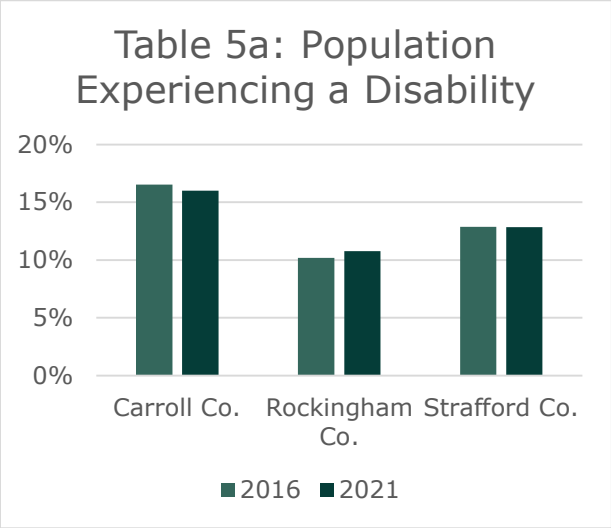
There are two ways to define accessible:

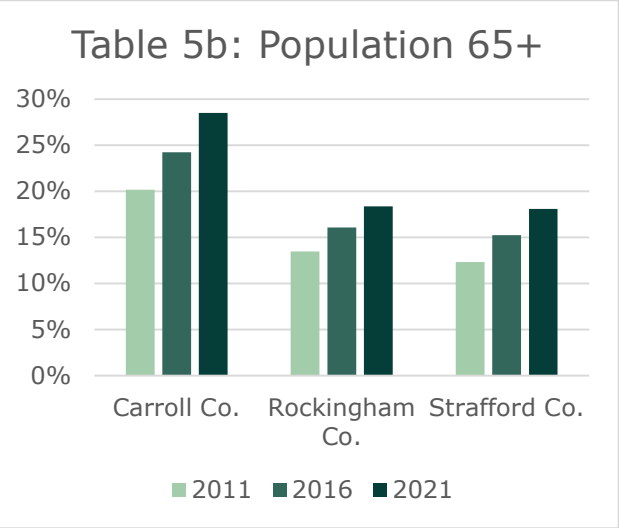
1. The availability of a resource (in this case the resource is bicycle, pedestrian and transit facilities); and
2. The ability for everyone to use a resource.

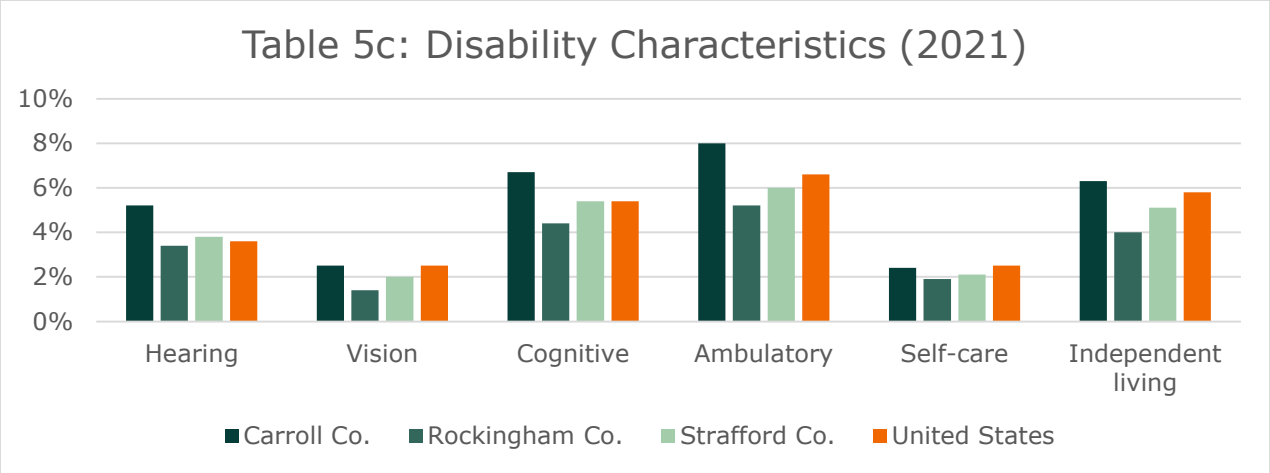
These two definitions go hand-in-hand: any bicycle, pedestrian or transit resource that is available in a community should be accessible to all ages and abilities. As we plan for Active Transportation resources, it's important to remember that all Granite Staters will require accessible spaces at some time in their life and that accessible spaces help all of us enjoy the same spaces as our loved ones of all abilities. It is imperative that communities plan inclusive methods for all users to move from Point A to Point B. This chapter will help us begin to understand where our region is on accessibility and, most importantly, identify the strategies to increase access to all modes of transportation.

Existing Conditions

Most communities in New Hampshire are seeing an increase in older adults. Between 2015 and 2020, the population 65 and older became the largest age group in the Strafford region (approximately 16 percent of the population) and this is expected to continue to increase (see Table 5b). In addition, 12 percent of residents in Strafford County (see Table 5a) experience a variety of disabilities (see Table 5c) that prevent them from driving, creating a dependency on transit or other modes of transportation to get around. We will explore the accessibility of various modes of active transportation in this section.







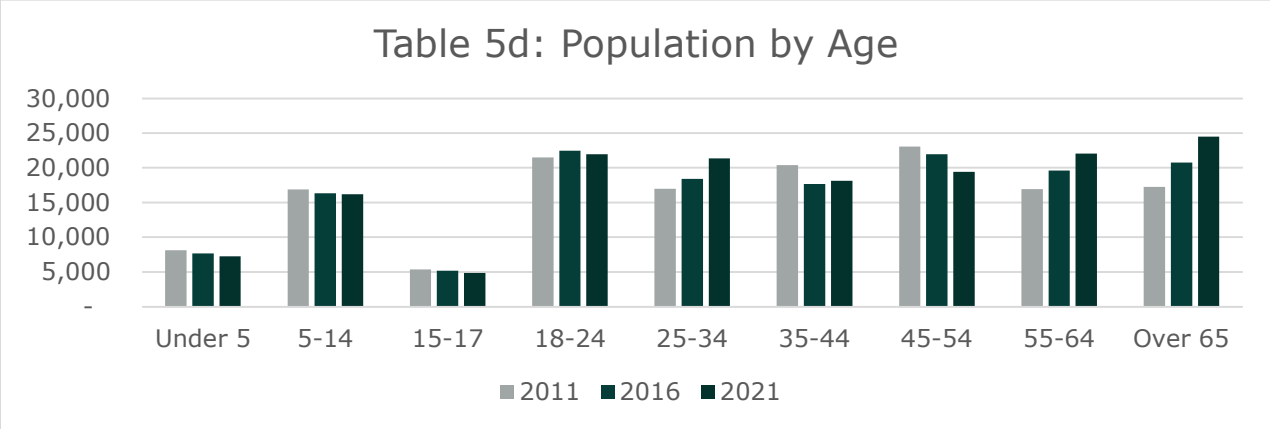
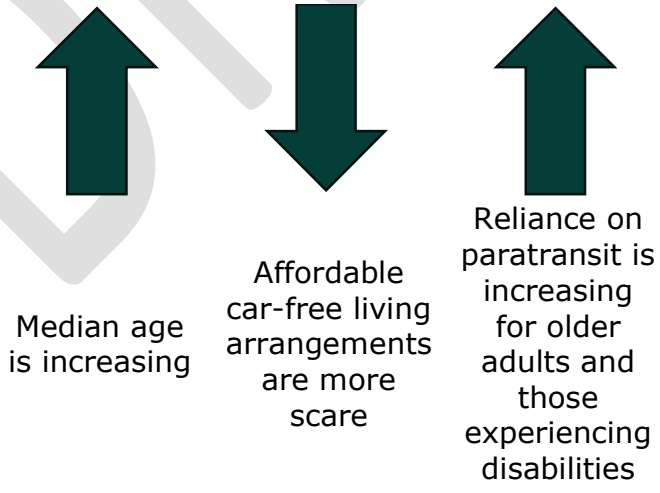


TABLE 5 – SELECTED VULNERABLE USER STATISTICS.
SOURCES: US CENSUS BUREAU ACS, 2011- 2021.



Transit

Accessible transit services (both availability and ability to use) are essential to serving our ever-changing population with varying abilities. The northern, more rural communities have a greater presence of both seniors and those experiencing disabilities, as shown in Table 5, yet these communities have fewer services available to them to meet their transportation needs (See Figure 12, right). Many of the transportation options available to older adults and people with disabilities in New Hampshire are demand-response services (also known as paratransit) that provide door-to-door transportation.

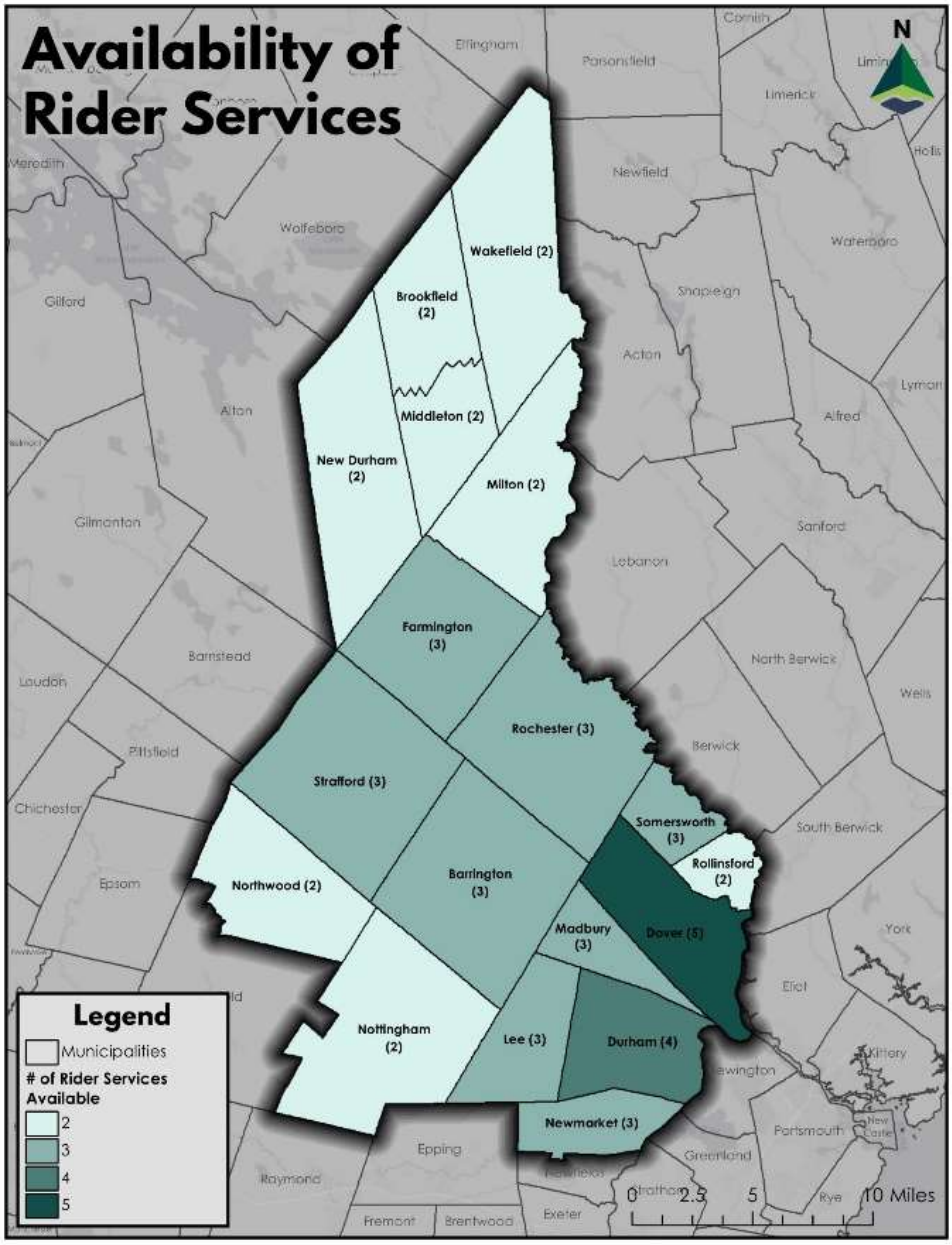


FIGURE 12 - TRANSPORTATION SERVICES AVAILABLE TO THE STRAFFORD REGION. SOURCE: SRPC 2023.

In the Seacoast region, there are a number of agencies that provide focused trips for older adults and people experiencing disabilities, including:

- The demand response services of COAST and UNH
- Grocery, retail, and pharmacy trips for low-income residents, older adults and people experiencing disabilities by Community Action Partnership of Strafford County
- Adult daycare pick-up and drop-off by Easterseals NH

- The Rockingham County chapter of the Meals on Wheels program.
- Rides to essential appointments and errands through the Future In Sight program from New Hampshire Alliance for Healthy Aging
- Free transportation to the elderly and disabled to medical appointments by Ready Rides, a volunteer service.

Most of these are accessible through TripLink, the call center staffed by COAST. In 2023, many on-demand transportation providers are only available for medical appointments and short grocery or pharmacy trips. They also may be subject to service area restrictions, primarily targeting major communities of the Seacoast and their surrounding towns (see Figure 12). This leaves many rural residents without a way to move around their communities, visit with friends and family, and engage in the local economy.

Sidewalks & Trails

The Strafford Region has an estimated 177 miles of sidewalks in 11 of the 18 municipalities (see Figure 13) and an estimated 360 miles of trails across all 18 municipalities.

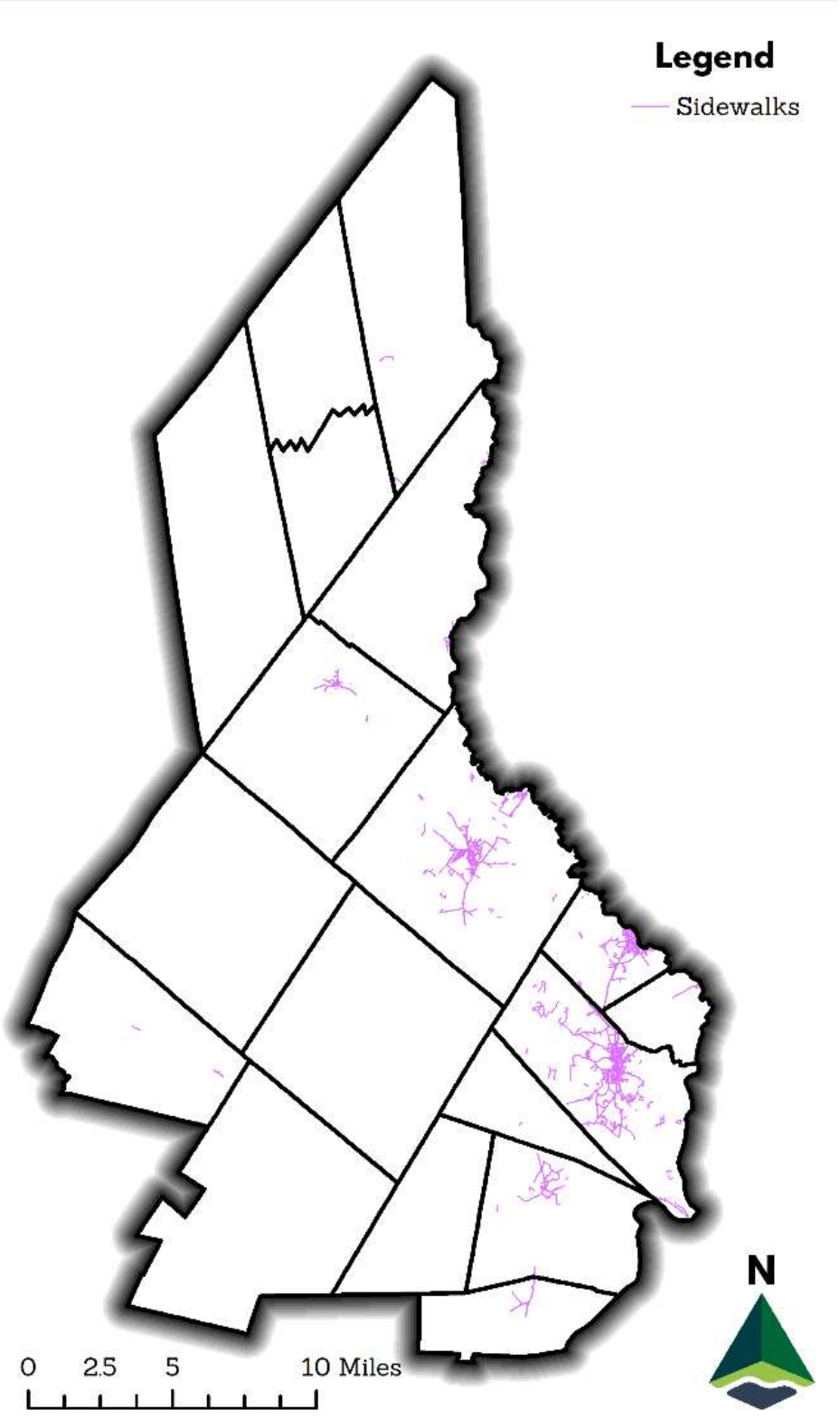


FIGURE 13 - SIDEWALKS OF THE REGION. SOURCE: SRPC 2023.

SRPC's data collection program includes active transportation metrics. Historically, SRPC has:

- Completed high-level sidewalk inventories for the Statewide Asset Data Exchange System (SADES), a network containing transportation data collected by the RPCs and UNH.
- Conducted bicycle and pedestrian counts upon request by municipalities.

More recently, SRPC has:

- Surveyed the region's recreation spaces during the pandemic, including accessible parking and path pavement types.
- Expanded our bicycle and pedestrian counting program, with the goal of rotating sites each year.

While this data has been useful for the greater transportation network and to boost economic development in the region, more analysis is needed on the Active Transportation resources in the region, including:

- Who can and cannot *use* those resources.
- Who *does use* those resources, by choice or because there is no alternative.
- Who *does use* these resources, but faces major challenges, impediments, or counterproductive design elements.

The responses to the Active Transportation Plan survey provided support for the need to collect more data on accessibility: 60 percent of respondents expressed concern over the accessibility of pedestrian and cyclist infrastructure in the Strafford Region. Many of these comments reported a lack of active transportation infrastructure and/or poor conditions of the infrastructure that does exist. Examples of the poor conditions included obstructions like chairs and tables on downtown sidewalks, cracking or uneven residential sidewalks, and lack of adequate snow removal which makes sidewalks and multi-use trails inaccessible for part of the year.

SRPC and other regional planning commissions recognize a growing need for accessibility planning and are researching best practices for obtaining this type of data. Some of the projects influencing our work include:

> *"I took my stepdaughter who uses a wheelchair on a few ADA trails & she said they were too steep. I think a rail trail would have been the best option but we don't have any close by. The rail trail in Rochester is really sandy/loose soils in places. You have to cross Route 11 in one place." 2023 Survey Response*

- In September 2023, SRPC completed an accessibility audit for the City of Rochester. This was conducted as part of the Communities for Healthy Aging Transitions project and included a walk audit of downtown Rochester completed by volunteers. The audit assessed sidewalk conditions, obstacles, pedestrian crossings, safety, and aesthetics. The final audit with its methodology, which can be used by any community, can be found at: https://strafford.org/projects/communities-for-healthy-aging-transitions/
- SRPC and neighboring Rockingham Planning Commission are completing a transit access study with special attention to land use planning.

While SRPC cannot determine ADA compliance, act as code enforcement, or build trails directly, we are committed to championing universal design for all active transportation facilities, implementing thorough field assessments, and supporting projects that supply transit, bicycle and pedestrian spaces that are "above the minimum" of ADA standards.

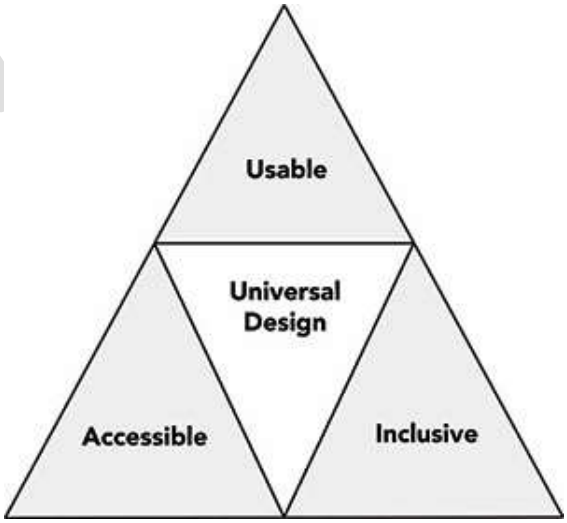
FIGURE 14 - WHEELCHAIR USER ATTEMPTING TO CROSS A RAILROAD CROSSING ON WAKEFIELD STREET IN ROCHESTER NEAR THE LILAC MALL SHOPPING CENTER. CREDIT: SRPC, 2013.

FIGURE 15 - BRICK SIDEWALK ON MAIN STREET IN DOVER. BRICK OR COBBLESTONE STREETS AND SIDEWALKS ARE OFTEN PRESERVED OR PURPOSELY BUILT IN NEW ENGLAND TO MAINTAIN COMMUNITY CHARACTER, BUT AREN'T ALWAYS ACCESSIBLE FOR WHEELCHAIR, STROLLER, AND WALKER USERS. CREDIT: SRPC, AUGUST 2023.

Best Practices

[12]There are a number of useful resources that can help communities advance their efforts in providing more active transportation modes and in making them more accessible. One primary method is to ensure that all new municipal construction or reconstruction projects incorporate accessibility for all. Project can include, but are not limited to: constructing new or renovating existing buildings; sidewalk installation and replacement; redesigning or building new parking lots; incorporating bus shelters and bike racks into redevelopment projects, etc.

ADA accessibility guidelines provide a minimum threshold for new and redevelopment projects, but Universal Design should be the goal. Universal Design is defined by the Centre for Excellence in Universal Design as: "the design and composition of an environment so that it can be accessed, understood and used to the greatest extent possible by all people regardless of their age, size, ability or disability."



[12] An approach to ensure that educational opportunities serve all students. University of Washington 2021.

There are many accessibility guides, policies, and standards to draw from:

- The Public Right of Way Accessibility Guidelines (PROWAG) define what a pedestrian space is.
- USDOT published accessible trail standards in 1999.
- National Association of City Transportation Officials Design Guides provide guidebooks on streets, sidewalks, and bikeways.
- New England ADA Center is a project of the Institute for Human Centered Design and is a guide on ADA for all New England states.
- City of San Antonio Ordinance: ARTICLE XII. - UNIVERSAL DESIGN AND CONSTRUCTION REQUIREMENTS FOR NEW SINGLE FAMILY HOMES, DUPLEXES AND TRIPLEXES BUILT WITH FUNDS ADMINISTERED BY THE CITY OF SAN ANTONIO.

SRPC is committed to expanding data collection efforts related to accessibility. While much of our data is sparse at this time, expanding data collection efforts through our UPWP program will enable SRPC to provide more extensive metrics on accessibility in the next Active Transportation Plan.

Fortunately, we have a strong foundation to build on. Recreational entities have accessibility metrics of their own. SRPC has identified the Universal Trail Assessment Program (UTAP) and would be interested in piloting one of our own. SRPC has offered trail mapping services to our municipalities for many years, so SRPC could append this task to one our own UPWP projects.

SRPC will also follow the methodologies created by other entities, including:

- Howard County, Maryland data collection efforts profile within Pedestrian Master Plan.
- New York State Parks Universal Trail Assessment Program.

Accessibility Goal: Remove barriers to active transportation so that all interested users of all ages and ability levels can enjoy existing and future facilities.	
How?	*When?*
Consider adopting universal design or stricter accessibility design guidance that go beyond minimum set forth in the Americans with Disabilities Act (ADA)	Medium-term
Adopt an ADA Transition Plan	Long-term
Seek funding to assess and respond to gaps in pedestrian and ADA access both to the regular network (sidewalks, trails, crossings) and to fixed route transit stops	Short-term
Who is involved?	• Municipalities
What are examples from the past?	• Creation of SADES, the state's inventory of critical infrastructure. SRPC is an ongoing participant and supplies sidewalk, curb ramp, and signal data when completing inventories for cities and towns. • Rochester Accessibility Audit (2023).
How can I get started?	• Report deficiencies. This includes but is not limited to potholes, uneven sidewalks, missing ramps or ramps that are not usable for wheelchairs, and COAST/Wildcat bus stops in poor condition. • Consider conducting an Accessibility or Walk Audit – AARP has a toolkit that can be tailored to any community. • Start a Project Sidewalk challenge for your town! Join a growing list of places that have crowd-sourced accessibility inventories – without leaving your home. • Connect a loved one with a transportation need with TripLink, or volunteer for one of the services they offer.

Economic Linkages

For decades in the United States, personal vehicle travel has been prioritized in policy and in planning transportation networks. From downtown streets to rural roads, the transportation network is designed primarily for automobiles with all other modes as a secondary consideration. Creating convenient, long-distance connections via highways had a profound impact on interstate commerce, but vehicle dominance came with negative impacts to the health and development of local economies. Many communities are working to reverse those impacts by re-designing streets to prioritize the safety of people walking, biking, shopping, and dining. Residents are also noticing the need for greater safety and connectivity of community destinations.

> *"After COVID we moved here and I noticed it's a great place with lots of kids but there's nowhere to go for the kids to hang out or even the parents to hang out and watch the kids. Sometimes we need to go to a convenient store like Walgreens that's not nearby [and] we need a recreational area." 2023 Survey Respondent*

Parking is a complex topic that raises strong opinions. Some parking is still a necessity in our auto-dominated transportation system, but space used for parking cannot easily be used for anything else, is often sited on prime real estate, and reduces economic potential. A wide range of options must be considered, so that parking is balanced with economic development.

Inviting Environments

A significant aspect of investment in stronger pedestrian connections is attraction. Users should be able to move unobstructed on our streets, but the streets should also be interesting and invite users to stay. This was proven dozens of times throughout the pandemic as many downtowns closed streets to allow restaurants to spill out into the street and for community art to flourish, with some municipalities electing to keep streets closed permanently. NACTO has several recommendations for different types of closed streets for different purposes.

This is not limited to downtown spaces. In late 2019, Montgomery County, Maryland put on a Placemaking Festival in a largely abandoned shopping center in the community of Burtonsville. In addition to live music, activities for children, and local food trucks, the event was also used as a sounding board for possible next steps for the space.[13]

[13] Burtonsville Placemaking. Montgomery County, Maryland 2019.

Electric Bikes

The U.S. imported approximately 790,000 electric bikes (e-bikes) in 2021. That's a significant increase over the nearly 450,000 e-bikes imported in 2020 and closer to 250,000 in 2019. This does not include bicycles manufactured and sold in the U.S. – a smaller but growing market.

E-bike sales outstripped electric vehicle sales in 2020 and the trend has continued. According to the U.S. Department of Energy, Americans purchased 608,000 electric vehicles (including plug-in hybrids) In 2021.

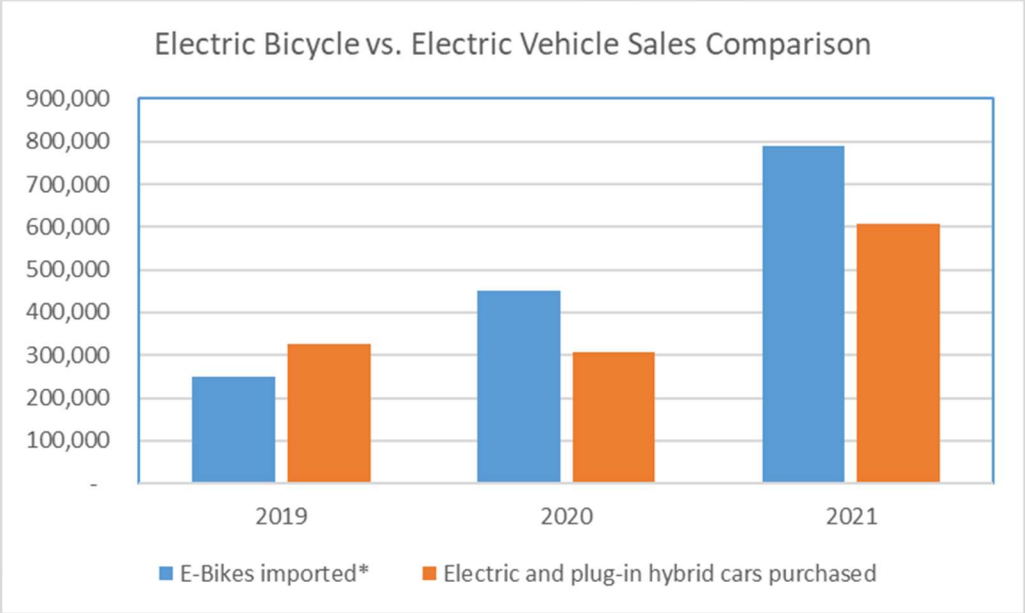


FIGURE 16 - ELECTRIC BICYCLE VS. ELECTRIC VEHICLE SALES COMPARISON. SOURCE: STATISTA 2024.

To put that in a global perspective, over 20 million e-bikes were sold in Europe in 2022[14]; projections suggest that in the same year, over 44 million e-bikes were sold in China alone[15].

The rising popularity of electric bicycles, or e-bikes presents an interesting economic opportunity for municipalities working to reinvent or invigorate their downtowns and major attractions. E-bikes enable people to leave their car at home and still take longer trips that would have been too far on foot. With safer road networks, more people could travel between municipalities for work and recreation.

[14] Industry Market Reports. Confederation of the European Bicycle Industry 2022.

[15] Sales volume of electric bicycles in China. Statista 2024.

Secure parking and charging sites for e-bikes are less expensive and take up far less room than parking and chargers for electric vehicles.

Transportation Investment for Local Land Values

Economies benefit when streets and communities are designed for people rather than cars. This approach focuses on creating a sense of community where people can gather. A town center that is designed around cars and their mobility ends up being a place to drive *through* rather than a place to go to.

The City of Somersworth directly tied streetscape and accessibility improvements to economic development. Establishment of a Tax Increment Finance (TIF) district in the downtown and award of a federal Transportation Enhancement grant in 2013-2014 launched a planning effort that continues today. The transportation grant funded new sidewalks, crosswalks, bike lanes, and parking which revitalized the downtown section of High Street. Along with establishment of a Tax Increment Finance district, the city adopted state law 79-E to incentivize investment in underused storefronts. As of 2023 a total of six buildings in the TIF district had accrued $2,738,900 in additional value due to building upgrades. Streetscape improvements were a critical part of Somersworth's successful efforts to revitalize their downtown. [16]

Change in value of six properties part of Somersworth's TIF district covered under 79-E	
Value Frozen in 2019	2022 Year End Value
$1,540,800	$4,279,700

[16] City of Somersworth 2023.

FIGURE 17 - CURRENT AND PROPOSED CONDITIONS OF DOWNTOWN SOMERSWORTH'S HIGH STREET. SOURCE: SRPC 2015.

In August 2022, New Hampshire published a statewide Rail Trails Plan. The plan development process included an analysis of the economic impact of New Hampshire's rail trails. It focused on state-owned rail trails and found they contribute $18,736,000 annually to the state's economy. For each visit or trip specific to a rail trail, on average, residents spend $14.31 and visitors spend $40.71. Most of this investment is in restaurants and for overnight accommodations.

See the full Rail Trail Plan here.

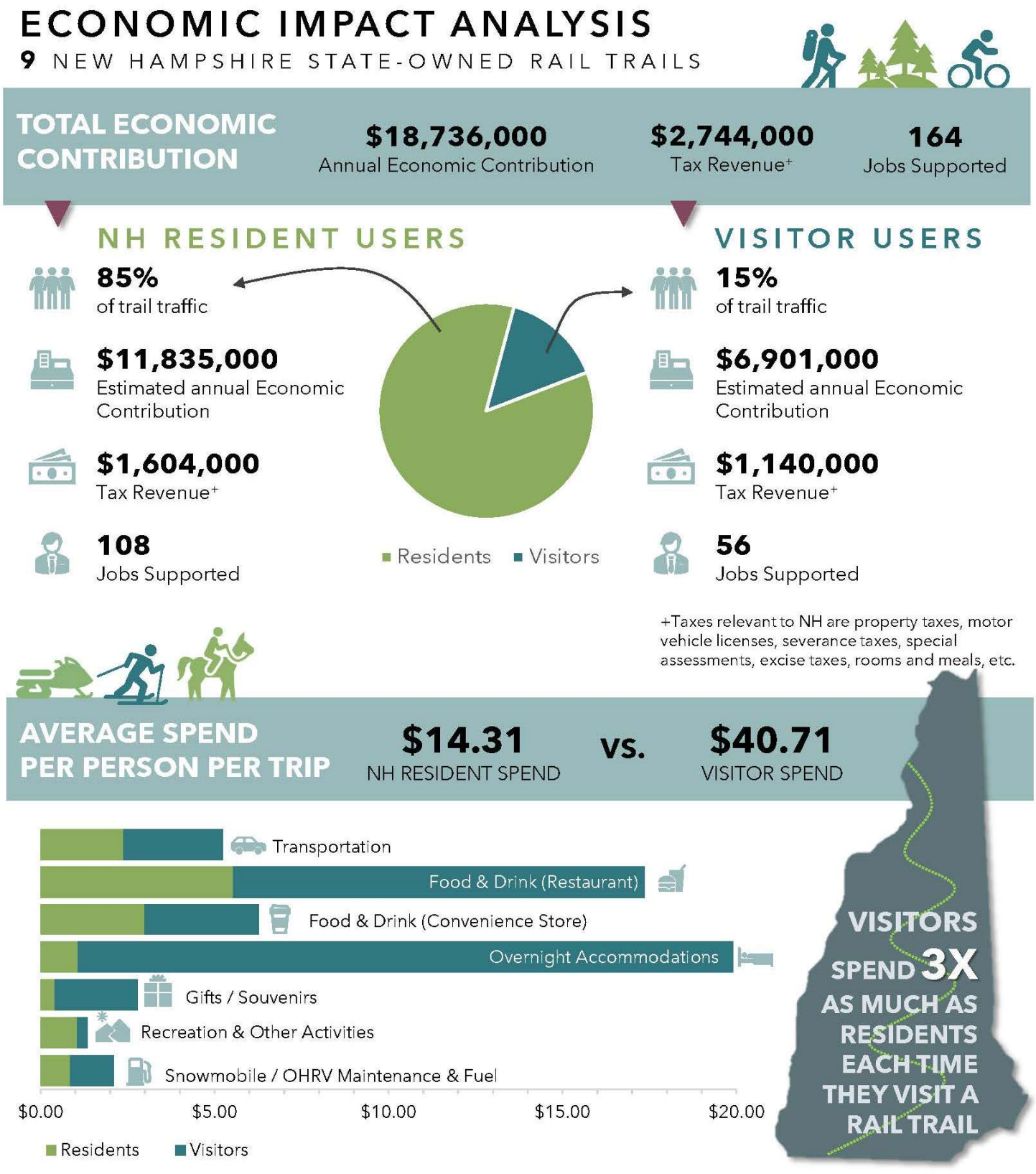


FIGURE 18 - SUMMARY OF ECONOMIC IMPACT ANALYSIS FROM THE 2022 RAIL TRAIL PLAN. SOURCE: NEW HAMPSHIRE DOT.

Economic Linkages Goal: Promote connections between active transportation facilities and both housing and local businesses and encourage these considerations in planning new facilities.	
Strategy	*Priority based on timescale and impact*
(1) Host workshop with area business owners to discuss active transportation needs that support economic development.	**Near term** Improve understanding of bike/ped impacts
(2) Improve quality of life for workers in commercial and industrial developments with better site designs, on-site amenities, and connections to nearby destinations.	**Medium term** Improve quality of life and workforce retention
(3) Identify and promote policies that encourage development around existing bike and pedestrian infrastructure.	**Medium term** SRPC compile or write with municipalities
(4) Collect data on winter bike and pedestrian activity for economic analysis.	**Ongoing** important for project development
(5) Educate stakeholders on the importance of a "complete streets" approach to new projects.	**Ongoing** Part of SRPC outreach and project development
(6) Connect with area economic development professionals and entities to discuss the connections between active transportation and economic development. Utilize these connections to promote active transportation facilities and options through leasing/rental entities and area business.	**Medium term** Part of active outreach by SRPC
Who is involved?	(1) Businesses, Economic Development Agencies (2) Municipalities, large employers (3) Municipalities, Housing Stakeholders, Public Transit (4) Local and State Recreation Departments (5) Local and State Decision Makers (6) Economic Development Agencies, Housing Stakeholders
What are examples from the past?	• Somersworth downtown High St streetscape improvements, and pending complete streets renovation of Main St (in city capital improvements program). • Dover's conversion of its downtown traffic flow from one-way to two-way, with additional street

	upgrades for walkability and safety (in city capital improvements program).
How can I get started?	• Contact your chamber of commerce to engage with the business community about how transportation improvements could affect the local economy. • Review the local master plan to learn about economic priorities and any development zones in your community (such as a Tax Increment Finance District).

Project Readiness

At some point, efforts to improve the transportation network for active transportation will likely result in proposed infrastructure projects. Such projects will be competing for limited funding. Whether it's a city council or the federal government, decision-makers will likely prioritize limited funding for projects based on readiness and level of impact.

From concept to construction, there are many factors that should be considered. Is the project designed for safety? What need does it fill and who will it serve? Does it connect important destinations? What funding sources are available? How will the infrastructure be maintained? These questions should be asked during the development of projects, but they will also be asked by people responsible for budgeting funds or selecting projects in a competitive process.

Some projects are planned and constructed exclusively by a municipality or as part of a local development. For example, sidewalks may be added as part of a new residential development, or a town could construct a foot path through a local park. The other primary project implementation process relevant to this plan is the regional process facilitated by Strafford MPO. Strafford MPO is responsible for facilitating a regional process for identifying and prioritizing investments of federal funds in transportation improvements. There are several federal funding programs dedicated to transportation improvement projects. The most basic requirement for accessing federal transportation funds for a project is for that project to be included in Strafford MPO's Metropolitan Transportation Plan ("Metro Plan"). Adding projects to the Metro Plan is a simple process but several project elements are required:

- A well-defined location and scope (e.g. "sidewalks along South Main Street from Cross St to High St")
- A description of the purpose for the project and the need it fills
- An estimate of the cost of each primary project phase (Preliminary Engineering, Right-of-way acquisition, and Construction)
- Demonstration of local support for the project

Project Readiness Goal: Detail existing and potential projects and provide strategies and funding options for implementation	
Strategy	*Priority based on timescale and impact*
Partner with municipalities to understand the use of supplemental vehicle registration fees and provide recommendations for a portion of funds to be allocated for bike and pedestrian facilities (if not already). For towns that don't take advantage of this statute (RSA 261:153), provide guidance on the benefits for active transportation.	**Near Term** Understand impact and develop funding sources.
Promote and facilitate opportunities for public-private partnerships for funding concerns related to facility creation and expansion (i.e. easement funding).	**Long Term** Partner development
Create a resource that details project development process and funding sources.	**Medium Term** Improve project development resources
Who is involved?	(1) Municipalities, Local and State Decision Makers (2) State Agencies, Regional Businesses (3) Municipalities, NH Dept. of Transportation
What are examples from the past?	• Replacement of General Sullivan Bridge for non-motorized users • Dover Community Trail sections • Rochester riverwalk project (in progress)
How can I get started?	• Review your local master plan for policies, priorities, and projects in development. • Discuss with local board members where improvements to non-motorized safety and connectivity are needed most. • Contact SRPC staff to learn more about the project development process and funding opportunities. Visit the SRPC website for supporting data and geographic information to support local project planning.

Data Collection & Analysis

Introduction

Data Collection is an integral part of informing decision makers about changes to existing conditions of assets like sidewalks, bike lanes, trails, and other infrastructure. The analysis of this data can be done at the state level or by an outside contractor, but New Hampshire RPCs are uniquely positioned to conduct field assessment of transportation infrastructure and equity and report directly to communities. Bike and pedestrian data have been collected by the Strafford Regional Planning Commission since 2015. However, the commission was largely collecting data for special occasions and by request by municipalities. SRPC expanded the program in 2022 to nearly 50 locations complementary to the vehicle traffic count rotation. This expansion of data collection is aimed at gauging use for municipalities and landowners, supplying data in the project solicitation process, and to track progress as improvements are made in current projects.

Existing Conditions

As described above, SRPC's primary pedestrian data collection efforts revolve around counting users on the region's sidewalks and trails, occasionally counting cyclists where the equipment can do so. With feedback from communities, SRPC has created a growing rotation of count locations throughout the 18 municipalities. Still in the early stages of planning, SRPC's data staff will have counts that are completed yearly, biannually, as needed, and on special occasions, such as festivals and data collection for project solicitation. About 40 such counts were completed between 2022 and 2023. SPRC also offers counts on request by municipalities, landowners, or state agencies. Since 2015, SRPC has used infrared counters made by **EcoCounter**, a European company specializing in active transportation products for all types of environments. Eco products are used by at least three other RPCs in New Hampshire, with an additional two counters owned by DOT and shared among the RPCs. These counters use passive-infrared technology to be able to count 2-way traffic of a walkway or trail. The bicycle-counting component consists of tubes that can be nailed down in a bike lane or trail and attached directly to the counter. "Hits" from bikers passing over the tubes are counted. SRPC can parse the raw data for its intended use. SRPC currently owns 5 such infrared counters, with 3 having the cyclist option. The data team generally commits to at least 2 weeks of counting per location to account for weather and special events. One limitation of the Eco counters is dependence on location. Sidewalk counts must be conducted on a structure between the sidewalk and the road, as a sensor facing the road is prone to counting vehicles.

Another data collection method SRPC has employed in the past has been manual counting. A staff member or volunteer can observe an intersection or section of path or sidewalk and count the number of cyclists or pedestrians as well as their direction of travel, usually planned for morning and evening commute times. This "ground-truth" method of data collection is time-consuming and dependent on weather and staff availability. SRPC has not used this method in several years and only does so on request by municipalities.

Planners have not been immune to the growing fascination with artificial intelligence and are exploring automation for data collection. For traffic and bicycle-pedestrian purposes, these are largely camera-based options.

- **Leetron** is a Concord, NH-based data collection company that specializes in AI-camera systems for traffic counting. SRPC has purchased one of these systems and has begun data collection for NHDOT. This system is unique in that it can only count a corridor of a roadway with a max of 6 lanes. While this system is used for counting and classifying cars, Leetron is working with the RPCs to train the system to recognize cyclists and pedestrians in collected footage. This will allow us to conduct pedestrian counts at a variety of new locations that we have not been able to collect before. While this upgrade and option is still unlikely to be available until 2024, it is an excellent step towards collecting data on a region-wide scale. The final option this device gives us is the ability to collect traffic data during the winter. Since we typically use tubes or radar counters for traffic counts, this can be set out for a whole week and withstand the snow to add to the seasonal data we collect.

- **Jamar TDC Ultra Data Collector** is another camera-based system made for intersection analysis. Intersection-based turning movement counts are a yearly request by municipalities to understand an intersection's flow during peak periods. One of the biggest safety concerns SRPC staff has been that these requests are typically done after Day Light Savings time meaning these are conducted in the dark for peak afternoon volumes. This device allows us to leave a camera up for longer periods allowing staff to not work in the dark and then to analyze the recording later. While there is no AI factor, the manual count of this data can be done at 2x speed to increase productivity. This will allow us to analyze traffic and pedestrians separately with video evidence for municipal officials.

- **EcoCounter** is a French company that creates infrared bike/pedestrian counters. The 5 that SRPC has purchased have been used since 2022 to collect several locations around the region to supply towns with data to support user needs. SRPC plans to create a rotation of bike/pedestrian counts to be conducted on an annual basis with around 30 locations being collected each year. There will be a few events and locations that will have yearly counts while others will be conducted every 3 years, just as we do with our traffic count locations. These events are primarily weeks that have significant local foot traffic such as Rochester Free Comic Book Day, Bike Week, Chamber of Commerce Business weeks, and Farmers Markets. This will allow us to prioritize when municipalities make requests each Spring for the Summer. SRPC has also started to offer Winter counts for municipalities to be able to sign up to take a counter for part of or the entire Winter. SRPC first gave this service to the Rochester Recreation Department to measure use in/out of the recreational office and the Rochester Ice Arena. The Recreation department will use this data to identify how busy their facilities

get on event days to establish a level of use which they currently do not have other than paper sign-in forms.

Data Collection Tools		
Image	*What? Who?*	*Why? Where?*
	EcoCounter Pyro-Box	Infrared pedestrian counters are designed for counting pedestrians/bicyclists on trails, paths, and sidewalks.
	Leetron – AI Counter	Camera based system on pole to record traffic volumes of roadways using an AI counter. Possible integration with pedestrian counts with AI. Possibly used for intersections in the future as well to count cars and pedestrians but without AI.
	JAMAR - TDC Ultra Data Collector	Intersection video time lapse camera that allows us to set up the camera and then manually review the data later at a higher speed.

Presence

SRPC has some information about what comprises the region's active transportation network.

- SRPC has a relationship with the local transit providers, COAST and UNH Wildcat through many transportation planning activities. SRPC has a consistent and up to date record of transit stops, routes, and hours of operation.
- SRPC has some information about sidewalks and crosswalks. This has largely been through past data requests from municipalities or from municipalities themselves. Even further limited is the condition of these sidewalks. New Hampshire RPCs contribute this information to a program called SADES (Statewide Asset Data Exchange System) which is a very detailed inventory of sidewalks, crosswalks, and curb ramps. This system is supported by UNH and provides detailed temporal data of the conditions, obstructions, and records ADA compliance. This has only be conducted in Rochester while the rest of the region has been collected but using a consolidated methodology compared to the SADES.
- SRPC has a somewhat regular account of LTS or "bicycle level of stress." This documents how comfortable novice, beginner, and advanced riders are expected to feel cycling on the region's roads. This can be used to identify bicycle and pedestrian islands where users can't access different neighborhoods due to high bicycle stress. By identifying these gaps, towns can make prioritized decisions to address gaps in connectivity and user safety.

SRPC, through its regularly programmed data collection efforts in the UPWP, will expand these layers where possible, with particular interest in sidewalks and crosswalks. Staff estimates the sidewalks layer could be updated in a matter of days. Before the next iteration of the Active Transportation Plan, SRPC will inventory the sidewalks and crosswalks of the region and confirm it is reflected in the in-house GIS layers.

Condition

With evolving and expanding downtowns and an aging population, SRPC has a growing interest in the accessibility of our spaces. One such option for evaluating the active transportation network are accessibility audits, such as the ones occurring as an outcome of the Community's for Healthy Aging Transitions (CHAT) project. Through the fall of 2023, the City of Rochester will have a team evaluate sidewalks, crosswalks, and entrances to buildings. The team will consist of city and SRPC staff but also volunteers, with a key emphasis on including older adults and children in the field work. (include sample evaluation form). Before the next iteration of the Active Transportation Plan, SRPC will complete at least one other accessibility audit.

In the spring and summer of 2020, thousands of acres of New Hampshire parks saw visitors enjoying the outdoors as a safe way to get out of the house. SRPC believes that the outdoors are for everyone, and the region's trails should reflect this. A methodology known as the Universal Trails Assessment Program (UTAP) has been endorsed by USDA and USDOT and implemented by several state parks systems.[17] The process takes physical characteristics, such as slope, path width, and surface type, into account but also site enhancements, such as clear signage indicating the above, presence of amenities like water fountains, and accessible parking. Before the next iteration of the Active Transportation Plan, SRPC data staff will seek training from a reputable Trail Assessment Coordinator and conduct a pilot study of a local trail or trail network.

Users

In conducting research for this plan, SRPC has found a lack of information regarding users of the region's Active Transportation network. As stated above, the number of users is relatively easy to count, depending on location. However, detailed information such as how an individual or group traveled to where they are walking or biking, the age group they belong to, and what is missing from the space is largely unaccounted for without a dedicated, location-specific campaign that is often time-consuming and expensive. Surveys for long-range planning such as this plan, a municipal recreation plan, or the state's Rail Trails Plan may be filtered by locations users report visiting, but often ask broad questions.

SRPC's bike-ped counts are positioned to be in the public view already. SRPC proposes a new data collection avenue that is location specific. A QR-code with contact information for alternative options for input can be attached to the counters' existing labels with a link to a short questionnaire about accessibility, travel, and demographics could be useful for reporting characteristics about specific sites throughout the region. A user-friendly graphic could also "demystify" the counters themselves by providing clarity about the purpose of the devices.

[17] New York State Parks Universal Trail Assessment Program.

Data Collection Goal: Improve and create programming to ensure that quality data exist as a basis for active transportation planning efforts and improvements.	
Strategy	*Priority based on timescale and impact*
(1) Connect with local municipal and businesses entities to understand placement and quantity of bike racks to local points of interest.	Medium Impact, High Feasibility
(2) Map existing facility locations and proximity to area businesses and points of interest in denser areas of the region.	High Impact, Medium Feasibility
(3) Refine and expand bike/ped counter program started in 2022, continue to produce yearly report, including identifying funding sources for permanent counters.	High Impact, Medium Feasibility
(4) Create an active transportation data/map portal online.	High Impact, High Feasibility
(5) Use SRPC data collection tools and staff for needs, including, bike-ped counts, sidewalk inventory, street tree inventory	High Impact, Medium Feasibility
(6) QR code on bike ped counters with survey for that trail/sidewalk	Low Impact, Low Feasibility
(7) Universal Trails Assessment Program	Medium Impact, Medium Feasibility
(8) Regional Sidewalk inventory	Medium Impact, Medium Feasibility

Who is involved?	Strafford Regional Planning Commission (1,2,3,4,5,6,7,8) Municipal Planning (1,3,6,7) Departments of Public Works (1,7,8) Trail Committees (3,7) Conservation Commissions (3,7) Economic Development Coordinators (2)
What are examples from the past?	• SRPC's rotation of data collection and 2022 pilot of dedicated bicycle and pedestrian counts. • SADES Sidewalks data collection in Rochester in 2019.

Educate & Advocate

Introduction

Many areas of New Hampshire are rural and personal vehicles will continue to be the primary mode of transportation. However, there are plenty of opportunities to build support and investment for other modes, many of which are already happening in our more urban and suburban areas. For those modes to succeed, we need to ensure that everyone moving from place to place - whether in a car, on foot, or riding a bike – know how to co-exist. How do they all safely get to their destination while respecting other modes they may be traveling alongside?

Education

Education for active transportation modes is important for a number of reasons: to make people aware of their location; to encourage their use; and to ensure people are using all modes safely. For this chapter of the Active Transportation Plan, we will focus on rules and regulations that allow us to safely use active transportation modes, since we discuss their location in other chapters and will present organizations who encourage their use in the advocacy section below.

1. The Rules of the Road

There are a number of RSAs outlining the safe use of bicycle and pedestrian facilities in New Hampshire. For example:

TABLE 6: STATE LAWS FOR PEDESTRIANS, BICYCLISTS AND MOTORISTS

Law	Summary
RSA 265:39	For Multi-use trails: Pedestrians on left, bicycles on right
RSA 265:47	Provides an overview of the various signals for bicyclists for stopping and turning
RSA 265:143a	Distance between a motorist and bicyclist while on a shared road: 3 feet to pass, increasing 1 foot per 10 mph over 30 mph (i.e., 4 feet when traveling 40 mph, 5 feet for 50, etc.)
RSA 259:27-a	Classification of electric bicycles
RSA 265:144 and 144-a	Rules of the road for bicyclist (including e-bikes)
RSA 265:144X	No person less than 16 years of age may operate or ride upon a bicycle on a public way unless he or she wears protective headgear.

This list is not exhaustive, but it does provide a basic foundation for how pedestrians, bikes and motorists should coexist with our

transportation networks. However, New Hampshire continues to diversify and provide new homes for people from Indonesia/South Asia, the Dominican Republic, and other countries. In many countries outside the U.S., owning a car is a luxury. People primarily walk, ride a bike, or take a bus. This provides both a need and opportunity for education on how to safely share the roads. In places like the Dominican Republic, buses operate on a flag system (i.e., no formal bus stops) and bicyclists are known to ride against traffic. In Indonesia in 2020, the Ministry of Transportation passed a rule to protect bicyclists:

- Prohibition for cyclists to add accessories for transporting passengers. The rule is exempted for bicycles that are designed to have passenger seats.
- Cyclists are prohibited from using a cellular phone and umbrellas—except for hawkers.
- Cyclists are prohibited from riding side by side with other vehicles or using the same lane unless in roads where the traffic and road signs allow it. More than two bikes are also prohibited to ride side by side on major roads.[18]

These varying degrees of regulations and protocol can make it challenging for other cultures to effectively use multi-modal transportation facilities safely in United States. These differences inform how they will (or won't) utilize our active transportation networks. For example, Indonesians **would be** allowed to put an extension on their bike to allow for a child to ride with them in the United States, but may not know that since it is prohibited in Indonesia.

Education is key. Police Departments around the region create bicycle safety webpages or Bike Safety days where they provide workshops to children on how to ride bicycles safely and follow the rules of the road. The Town of Durham has a very comprehensive webpage educating the public about the rules of the road for bicyclists, as do other communities in the region.

[18] Indonesia to Pass Bicycling Rule Soon - News En.tempo.co

Advocacy

Advocacy is important for Active Transportation to build support, generate funding, encourage the use of existing and construct new bicycle, pedestrian and transit facilities. There are a number of organizations in the region and the state that do a mix of all three of these, including:

- Bike-Walk Alliance
- Bike Durham
- People for Bikes
- Transportation Management Associations – CommuteSMART Seacoast, CommuteSmartNH and Vital Communities/Upper Valley TMA. TMAs work with regional employers to reduce the use of single occupancy vehicles and participate in challenges to encourage employees to walk, bike, and take transit (among other modes, like carpooling).
- New England Mountain Bike Association (NEMBA) promote responsible mountain biking and to protect and preserve New England trails and open spaces.
- Seacoast Area Bicycle Riders (SABR) promotes cycling as a way of life for recreation and utility for all Seacoast residents through advocacy, education, and events.

One of the organizations in the Strafford Region that advocates for all of the active transportation modes is CommuteSMART Seacoast. Their mission is to "promote smart commuting options – carpooling, vanpooling, transit, bicycling, walking, and teleworking- that will support a livable and economically vibrant greater Seacoast community." CommuteSMART Seacoast is a TMA (Transportation Management Association) comprised of businesses throughout the region. Membership is free and open to any employer in the Greater Seacoast region of New Hampshire. Funding to support staff comes from federal transportation dollars from the Congestion Mitigation and Air Quality program. For businesses and employees, the program provides a number of benefits:

- Confidential online carpool and vanpool matching service
- On-site educational events and materials about carpooling, bicycling, transit, and teleworking
- Individualized commuter transportation planning
- Surveying and analyzing commuter transportation patterns and needs
- Quarterly e-newsletter and email blasts
- Regional commuter events and contests to encourage smart commuting
- Advocating on regional transportation issues
- Roundtables on commuting options and topics of common concern to members

FIGURE 19 - "WRONG WAY" SIGN WITH A REMINDER FOR BIKES TO RIDE WITH TRAFFIC SEEN IN CONCORD. CREDIT: SRPC, AUGUST 2023

Strategies	*Priority based on timescale and impact*
Education Goal 1: Increase promotion of existing active transportation resources in the region.	
1.1 Present and share information regarding what active transportation is, and where active transportation options exist in and around the region.	Medium Feasibility, **High Impact**
1.2 Provide outreach to employers and health insurance companies about the benefits of sustainable and active transportation for employees.	Medium Feasibility, **High Impact**
1.3 Promote the benefits of electric bicycle charging infrastructure.	High Feasibility, **High Impact**
Education Goal 2: Work with partners to educate all users on appropriate and safe use of bike and pedestrian facilities.	
2.1 Connect with active transportation users in various capacities (steering committees, outreach events) throughout the year to maintain an open dialogue for feedback.	Medium Feasibility**, Low Impact**
2.2 Ensure coordination with state bike/ped/transit plans for consistent communication and branding.	**Neutral**
Education Goal 3: Continue advocating for funding for new multi-modal projects in the Legislature.	
3.1 Host meet and greets and build relationships with our regional and federal legislative delegation to advocate for funding for new, expanded multi-modal projects.	Low Feasibility, **Medium Impact**
Who is involved?	Municipalities/Local Boards/Committees (1.3, 2.1) Businesses (1.2, 1.3) Strafford Regional Planning Commission (1.1, 1.3, 2.1, 2.2, 3.1) State Agencies (2.2) Non-Profit Organizations (1.1, 2.1) Legislators (3.1)
What best practices?	• Promoting Outdoor Play (POP!) • Coordinated Plan examples to support transit (pages 5-11 – Business Support: specifically around Stoneyfield and Dartmouth Hitchcock)
How can I get started?	• Review State and local multi-modal transportation laws • Find local organizations to learn where bike/ped/transit facilities are located • Review the Connectivity Chapter in the Active Transportation Plan to see where your local facility is located.

DRAFT - 2023 Active Transportation Plan Implementation Matrix

Feasibility Rating	Impact Rating	Strategy (abbreviated description)	Safety	Environmental & Public Health Connections	Connectivity	Access	Economic Linkages	Project Readiness	Data Collection & Analysis	Educate & Advocate	Potential Partners
			● = Primary topic				○ = Related Topics				
High	High	Host workshop with area business owners			○		●			○	Businesses, Economic Development Agencies
Medium	High	Improve quality of life for workers in commercial and industrial developments		○			●			○	Municipalities, large employers
Medium	Medium	Policies that encourage development around existing bike and pedestrian infrastructure.	○		○	○	●			○	Municipalities, Housing Stakeholders, Public Transit
Medium	Low	Collect data on winter bike and pedestrian activity for economic analysis.					●		○	○	Local and State Recreation Departments
Low	Medium	Educate stakeholders on the importance of a “complete streets” approach to new projects.	○			○	●			○	Local and State Decision Makers
Medium	Low	Discuss active transportation connections with area economic development professionals			○	○	●			○	Economic Development Agencies, Housing Stakeholders
Low	High	Partner with municipalities to understand the use of supplemental vehicle registration fees					○	●	○	○	Municipalities, Local and State Decision Makers
Low	High	Promote and facilitate opportunities for public-private partnerships					○	●		○	State Agencies, Regional Businesses
Medium	Medium	Create a resource that details project development process and funding sources.					○	●		○	Municipalities, NH Dept. of Transportation

DRAFT - 2023 Active Transportation Plan Implementation Matrix

Feasibility Rating	Impact Rating	Strategy (abbreviated description)	Safety	Environmental & Public Health Connections	Connectivity	Access	Economic Linkages	Project Readiness	Data Collection & Analysis	Educate & Advocate	Potential Partners
			● = Primary topic				○ = Related Topics				
Medium	High	Catalog crash incidents and share location-specific inferences about safety improvements with appropriate town and state officials.	●						○	○	SRPC Municipal Police Department Emergency Response
High	High	Identify areas and promote the usage of signage and road features to improve bicyclist safety (i.e. Share the Road signs, bike lanes, sharrows).	●						○	○	SRPC
Medium	Low	Coordinate with municipal departments (i.e., law enforcement/DPW/Rec) to understand safety needs along existing facilities to inform prescriptive solutions for trail improvements and future facilities.	●						○	○	SRPC Municipal Police Departments
Medium	High	Revisit Level of Traffic Stress data to understand priority areas for safety improvements.	●					○	○		SRPC Departments of Public Works Recreation Departments
High	High	Conduct an analysis to determine where to install more bicycle parking facilities. (i.e., use See Click Fix/crowd-sourcing exercise, GIS to determine where they should be)	●			○		○	○	○	Municipalities
Medium	High	Conduct an analysis of the alternative transportation facilities are and where are the gaps	●		○	○			○		Municipalities

DRAFT - 2023 Active Transportation Plan Implementation Matrix

Feasibility Rating	Impact Rating	Strategy (abbreviated description)	Safety	Environmental & Public Health Connections	Connectivity	Access	Economic Linkages	Project Readiness	Data Collection & Analysis	Educate & Advocate	Potential Partners
			● = Primary topic				○ = Related Topics				
High	Medium	Consider adopting universal design or stricter accessibility design guidance that go beyond minimum set forth in the Americans with Disabilities Act (ADA)				●					Municipalities
Medium	Low	Adopt an ADA Transition Plan				●					Municipalities
High	Medium	Seek funding to assess and respond to gaps in pedestrian and ADA access both to the regular network (sidewalks, trails, crossings) and to fixed route transit stops				●					Municipalities
Medium	High	Present and share information regarding what active transportation is, and where active transportation options exist in and around the region.								●	SRPC Non-Profits
Medium	High	Provide outreach to employers and health insurance companies about the benefits of sustainable and active transportation for employees.	○				○			●	Businesses
High	High	Promote the benefits of electric bicycle charging infrastructure.					○	○		●	Municipalities/Local Boards/Committees Businesses SRPC
Medium	Low	Connect with active transportation users in various capacities (steering committees, outreach events) throughout the year to maintain an open dialogue for feedback.						○	○	●	Municipalities/Local Boards/Committees SRPC Non-Profits
Medium	Medium	Ensure coordination with state bike/ped/transit plans for consistent communication and branding.								●	SRPC State Agencies
Low	Medium	Host meet and greets and build relationships with our regional and federal legislative delegation to advocate for funding for new, expanded multi-modal projects.				○		○		●	SRPC Legislators

DRAFT - 2023 Active Transportation Plan Implementation Matrix

Feasibility Rating	Impact Rating	Strategy (abbreviated description)	Safety	Environmental & Public Health Connections	Connectivity	Access	Economic Linkages	Project Readiness	Data Collection & Analysis	Educate & Advocate	Potential Partners
			● = Primary topic				○ = Related Topics				
High	Medium	Connect with local municipal and businesses entities to understand placement and quantity of bike racks to local points of interest.			○	○			●		SRPC, Municipalities
Medium	High	Map existing facility locations and proximity to area businesses and points of interest in denser areas of the region.			○	○	○		●		SRPC, Municipalities
Medium	High	Refine and expand bike/ped counter program started in 2022, continue to produce yearly report, including identifying funding sources for permanent counters.			○			○	●		SRPC, Municipalities
High	High	Create an active transportation data/map portal online.			○				●	○	SRPC, Municipalities
Medium	High	Use SRPC data collection tools and staff for needs, including, bike-ped counts, sidewalk inventory, street tree inventory	○	○			○	○	●		SRPC, Municipalities
Low	Low	QR code on bike ped counters with survey for that trail/sidewalk							●	○	SRPC
Medium	Medium	Universal Trails Assessment Program	○		○	○		○	●		SRPC, Municipalities
Medium	Medium	Sidewalk inventory	○		○	○			●		SRPC, Municipalities

DRAFT - 2023 Active Transportation Plan Implementation Matrix

Feasibility Rating	Impact Rating	Strategy (abbreviated description)	Safety	Environmental & Public Health Connections	Connectivity	Access	Economic Linkages	Project Readiness	Data Collection & Analysis	Educate & Advocate	Potential Partners
			● = Primary topic				○ = Related Topics				
High	High	Continued involvement in Travel Demand Management, entities like CommuteSmart, and other groups like the Bike Walk Alliance of New Hampshire and Seacoast Area Bicycle Riders (SABR). These groups and initiatives provide education and even incentives for physical activity and non-auto trips.		●					○	○	SRPC, RPC, COAST, and participating agencies
High	High	Maintain relationships with towns' conservation commissions, recreation commissions, and local land preservationists to stay up to date on the newest properties that have been preserved and identify potential connections to the regions trails and bike routes.		●	○			○			SRPC and municipalities, land trusts
High	High	Support projects that build out sidewalks, bike lanes, and trails within denser areas to create active transportation alternatives or remove cars from the road.		●	○	○		○			Municipalities and SRPC
High	Medium	Partnering with healthcare advocacy groups to support public health promotion campaigns.		●						○	Public health networks, healthcare providers, active transportation advocacy groups
Low	Medium	Support active transportation projects that maximize public health benefits, like trails with built in work out stations, mile markers, or split lanes.		●						○	SRPC, active transportation advocacy groups
High	High	Inclusion of stormwater needs and maintenance responsibilities		●				○			Municipalities and SRPC
High	High	Creating inter- and intra-regional active transportation networks by facilitating meetings between municipalities or between states to create conversations surrounding cost-sharing, collaboration, and connectivity.			●			○		○	
High	Low	Make connections visible or outright advertise them, using existing public transit connections.			●					○	
High	High	Identify and prioritize potential inter- and intra-regional connections for existing and future facilities.	○		●	○		○			
Medium	Medium	Form partnerships to create new facilities.			●			○		○	

Appendices

Survey Questions

Please rank 3 of the 7 items [...] in your preferred order:	a. Infrastructure b. Creating regional connections c. Technology d. Supporting amenity enhancements e. Trails f. Outreach/marketing g. Other (please indicate)
What is your comfort level using existing facilities (sidewalks, roads, trails) for active transportation in the region?	a. I am only comfortable on quiet streets or on trails, away from traffic. b. I am OK in traffic sometimes, but prefer bike lanes, wide shoulders or sidewalks. c. I am comfortable with traffic on almost any road, without bike lanes, wide shoulders or sidewalks. d. I'm not comfortable using existing facilitates for active transportation, regardless.
Walking Habits	
When I walk, it's primarily to... [select all that apply]	a. Exercise b. Go places (work, school, etc) c. Save money (gas, parking, etc) d. Socialize e. Reduce pollution/carbon footprint f. Avoid traffic congestion g. I don't walk
How many days per month do you walk?	a. Every day b. Most (more than 10 days) c. Frequently (5 to 10 days) d. Occasionally (1 to 2 days) e. I don't walk
On a scale of 1 to 5, how safe do you feel walking in your community?	1. Extremely safe … 5. Not safe at all 6. I don't walk in my community
Do you have any other comments about walking in the community you live in?	
When I bike, it's primarily to...	a. Exercise b. Go places (work, school, etc) c. Save money (gas, parking, etc) d. Socialize e. Reduce pollution/carbon footprint f. Avoid traffic congestion

	g. I don't bike
How many days per month do you bike?	a. Every day b. Most (more than 10 days) c. Frequently (5 to 10 days) d. Occasionally (1 to 2 days) e. I don't walk
On a scale of 1 to 5, how safe do you feel biking in your community?	1. Extremely safe … 5. Not safe at all 6. I don't bike in my community
Do you have any general comments about biking in the community you live in?	
When I don't walk, it's because…	a. Scarce facilities (trails, sidewalks) b. Lack of amenities (public restrooms, showers, benches) c. Poor facilities (sidewalk conditions, lack of crosswalks, etc) d. I don't enjoy walking e. Health issues f. I don't feel safe (neighborhood, poor lighting, etc) g. I don't feel safe (traffic, driver behaviors, etc) h. N/A
When I don't bike, it's because…	a. Scarce facilities (trails, sidewalks) b. My destinations are too far away c. I don't own a bike d. Poor facilities (sidewalk conditions, lack of crosswalks, etc) e. I don't feel safe (neighborhood, poor lighting, etc) f. I don't feel safe (traffic, driver behaviors, etc) g. Hills and terrain h. Health issues i. Lack of amenities (public restrooms, showers, benches) j. I don't enjoy biking k. N/A
Everyone deserves equal access to active transportation. Do you know of any barriers to those with impediments to walking (i.e. a wheelchair) in your community?	
Use the field below to note any additional barriers to active transportation in your community.	

What types of improvements for active transportation are most important to you and your community?	a. Increased pathway infrastructure (bikes lanes, wide shoulders, sidewalks) b. Increased multi-use recreation trails c. Dedicated lanes or paths along particularly busy roads (e.g. NH108, 125, Route 11) d. Increased amenities to create more bikeable/walkable downtowns (public bike shares, more bike racks, increased benches) e. Increased safety infrastructure (crosswalks, bump outs, lighting) f. Unsure
If you could only pick one walking and biking improvement in your community or within the region, what would they be?	
Do you have specific project ideas you'd like us to develop with your community, or within the region?	
Are there specific destinations you think more people would bike/walk to if there were safer routes?	
Are there improvements to existing bicycle and pedestrian facilities in the region that should be considered (extension of a rail trail, etc.)?	

[Map Activity] Pin options:	a. [Respondent's] Home
	  a. Indicate town
	b. Active Transportation Destination
	  a. What is the destination?
	  b. What do you like to do there?
	c. New/Expanded Infrastructre Idea:
	  a. Where/what would you like to see built or expanded?
	  b. Why?
	d. Areas for Improvement?
	  a. Explain the area, destination or infrastructure that needs improvement.
	  b. Why does it need improvement?
	e. Other
	  a. What is your active transportation comment?

What community do you live in?	
Age:	a. 0 to 17 b. 18 to 24 c. 25 to 34

	d. 35 to 44 e. 45 to 54 f. 55 to 64 g. 65 to 75 h. 75+
Do you own a car or bike?	a. I own a bike b. I own a car
Are you involved in any bicycle, hiking, or walking orgs, and if so, which?	
If you are interested in keeping up to date with this project, please provide your e-mail address below.	

Project Listings

Funded projects directly related to active transportation

Location and Project Number	Project Description	Total Funding	First Year of Construction
Barrington 43547	Pedestrian safety improvements along NH 9 including sidewalks and ADA crossings at NH 9/NH 125	$1,287,249	2031
COAST 44175	New maintenance, operations, and administrative facility	$9,670,355	Not yet programmed
COAST 44176	New maintenance, operations, and administrative facility	$2,500,000	Not yet programmed
Dover 41373	Multi-use path [Dover Community Trail] from Knox Marsh Rd. to Bellamy Rd	$641,937	2025
Dover 41824	Pedestrian and accessibility improvements on Chestnut St	$261,839	2030
Dover 44159	NH108 (Central Ave) Complete Streets reconstruction between Stark Ave and Silver St	$5,625,000	2026
Rochester 42625	Charles St intersection improvements with updated sidewalks	3,021,339	2030
Farmington 43550	New and reconstructed sidewalks on Main St and Lone Star Ave.	$705,431	2032
Milton 43551	Construct ~2770 lf of sidewalks along Silver and Dawson Streets	$723,370	2031
Newington-Dover 11238S	Remove the superstructure General Sullivan Bridge & provide the most cost effective bike/ped connection	$48,651,519	2024
Rochester 43728	Construct 6,400 linear feet of new sidewalk along Portland St.	$1,115,858	2030
Somersworth 42627	Pedestrian improvements to connect schools to the downtown	$1,481,391	2030

Funded projects with active transportation components or connections

Location and Project Number	Project Description	Total Funding	First Year of Construction
Rochester 43552	Capacity and intersection improvements on NH11 north of Spauling Turnpike (including new sidewalks)	$4,239,480	2025
Dover-Somersworth-Rochester 29604	NH108 Complete Streets improvements	$31,852,654	2025

Long-range active transportation projects in development

Location	Project Description	Estimated Funding
Durham	Madbury Rd from Woodman Rd to US4. Install sidewalks where don't currently exist. Pedestrian crossing refuge islands and other traffic calming. Coordinate with utilities upgrades.	Locally funded project
Lee	2,100 foot long, 10 foot wide separated multi-use path along southbound side of NH155	$640,312
Milton	Install shared lane markings (Sharrows) along NH125 (White Mtn Hwy) through town center from Dawson St to Depot Pond Rd	$17,881
Rochester	Pedestrian and bicycle accessibility and safety improvements on Salmon Falls Rd. Build two miles of sidewalk between Portland St and Whitehall Rd. From Whitehall Rd to the Somersworth T/L (2.5 Miles), widen shoulders and improve signage and lane markings to improve safety for cyclists and pedestrians.	To Be Determined
Rochester	Pedestrian and bicycle accessibility and safety improvements on Salmon Falls Rd. From Whitehall Rd to the Somersworth T/L (2.5 Miles), widen shoulders and improve signage and lane markings to improve safety for cyclists and pedestrians.	To Be Determined
Rochester	Approx. 900 ft of North Main St from intersection of NH202A and North Main St to Cocheco River bridge. Improve the segment with bicycle, pedestrian, and streetscape enhancements. Improve visibility and safety and mid-block crossings. Improve alignment and traffic	$2,105,114

	flow at intersection of Pine St, River St, and Cove St with North Main St.	
Rochester	Rochester Riverwalk. Project includes four phases with individual components: 1) access, trails, and wayfinding in the Hanson Pines; 2) bicycle and pedestrian facility and streetscape improvements in the downtown; 3) bicycle and pedestrian facility and streetscape improvements along North Main St; and 4) recreation site development at the end of River St across the river from the Wyandotte Mills.	$2,866,581
Somersworth	Pedestrian and traffic safety improvements at intersection of West High St/Maple St/Sunset Drive.	$628,056
Somersworth	Complete Streets improvements for bicycles, pedestrians, parking, and downtown storefront streetscaping along 4,000 feet of Main St from John Parsons's Dr. to Indigo Hill Rd.	$4,030,000
Wakefield	Bicycle and pedestrian safety improvements on NH109 through the town center.	To Be Determined

Glossary & Acronyms

Active Transportation	Any human-powered mode of transportation. Walking, biking, or rolling by way of an assistive device such as a wheelchair are the most common types.
Age-in-Place	The idea that an older adult would like to stay in their current home as they get older.
CMAQ	("C-mack") Congestion Mitigation and Air Quality improvement, a funding program of Federal Highway Administration to help meet cities and regions meet requirements of the Clean Air Act.
COAST	Cooperative Alliance for Seacoast Transportation, the region's primary public transit provider.
BOT/NHBOT	New Hampshire Bureau of Trails, a division of the Department of Natural & Cultural Resources.
DES/NHDES	New Hampshire Department of Environmental Services.
Desire Path or Goat Path	A space with visible use by humans despite no formal infrastructure, pathway, or signage.
DHHS/NHDHHS	New Hampshire Department of Health & Human Services.
DNCR/NHDNCR	New Hampshire Department of Natural & Cultural Resources.
DOT/NHDOT	New Hampshire Department of Transportation
Fixed route	The formal, established routes of a transit provider or system, with established routes, stops, signage, fares, and timetables. Often in contrast to a provider's "on-demand" or "demand response" service.
LTAP	Local Technical Assistance Program, a transportation funding and workforce partnership in New Hampshire.
Micromobility	"…Any small, low-speed, human- or electric-powered transportation device, including bicycles, scooters, electric-assist bicycles, electric scooters (e-scooters), and other small, lightweight, wheeled conveyances."[1]
On-demand or demand response	The services of a transit provider that can (but not always) pick-up and deliver a user to or from a specific destination. Paratransit or ADA transit are the most common examples.
RPC	Regional Planning Commission; Rockingham Planning Commission
SADES	Statewide Asset Data Exchange System, a transportation data partnership in New Hampshire.
SEDD	Strafford Economic Development District. A federal designation covering all of the Strafford Region except its Rockingham County communities.
SRPC	Strafford Regional Planning Commission.
TAP	Transportation Alternatives Program. A program of the Federal Highway Administration that was instrumental in

	the funding of many active transportation projects in the region.
UNH	University of New Hampshire.

[1]Federal Highway Administration *Public Roads – Spring 2021.*