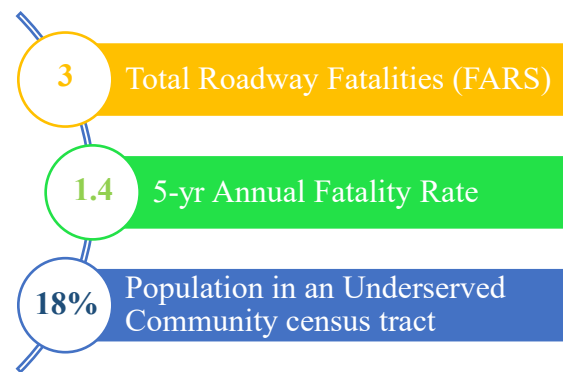


# Supplemental Planning for Safe Streets and Roads for All in Burlington VT

Burlington applied to the FY22 Safe Streets and Roads for All program to implement recommendations of the Action Plan. Crash and demographic data analysis for that application (using Justice40 criteria and 2016-2020 crash data) revealed the disproportionate impact of serious and fatal crashes on disadvantaged residents in Burlington. More than 1,900 crashes occurred in Burlington between 2016 and 2020; 38 resulted in serious injuries or fatalities. Of those, 20 involved our most vulnerable road users: 15 people walking and 5 people biking. The vast majority of these crashes – a staggering 92% – occur in neighborhoods experiencing economic, equity, and/or health disadvantages.



As a small city, demographic data associated with Census blocks and tracts is coarse-grained. It lacks the granularity necessary to discern the unique circumstances of households and neighborhoods. Burlington is home to the state’s largest foreign-born population and population of residents who are black, Indigenous, and people of color. Burlington needs a detailed understanding of the domains of equity as it relates to our residents in order to connect the quantitative traffic safety problems with the qualitative circumstances that contribute to disadvantaged residents’ being disproportionately impacted by severe and fatal crashes.

The City of Burlington adopted a transportation safety Action Plan in 2017 within planBTV Walk Bike. The planning process for Burlington’s 2017 Action Plan was inclusive and equitable but was not data-driven. Underserved communities were identified using anecdotal, local knowledge instead of data; and recommendations for projects and strategies were developed for equality rather than equity. The Action Plan is currently being updated with assistance from the Chittenden County Regional Planning Commission. This update will take a data-driven approach to prioritizing key bicycle and pedestrian infrastructure improvements. It will lean heavily on qualitative data gathered through an equity-focused engagement process as well as quantitative crash, volume, speed, and utilization metrics. Similar to the 2017 Action Plan, the engagement process will be equity-focused. Community feedback will inform the updated list of recommended infrastructure projects, but there is not enough localized data to establish equity-centered infrastructure recommendations. The Action Plan needs a concurrent, comprehensive planning effort to understand who is actually living in Burlington, their status across the social determinants of health, and what their transportation needs and challenges are. This will inform how transportation system improvements can prioritize equity and prevent disproportionate impacts on disadvantaged residents.

Since the Action Plan’s adoption in 2017, Burlington has systemically deployed low-cost strategies to improve transportation safety across the city. Projects have been implemented with paint and quick-build materials along corridors and at intersections, but signalized intersection improvements have not kept pace. Burlington proposes to demonstrate the safety benefits of connected intersections by upgrading cabinets, controllers, and/or ancillary components at intersections along Main Street between Willard Street and Staples Plaza in South Burlington. Main Street is the gateway into Burlington and accounts for 8% of all serious and fatal crashes (2016-2020). It is a mixed-use corridor heavily traveled by elementary and middle school students; faculty, staff, and students of the University of Vermont; Green Mountain Transit; and

all modes of transportation. Residents along this corridor have historically experienced economic disadvantages, and deficiencies in the transportation infrastructure on Main Street result in additional burdens for this community. This demonstration will dovetail with the reconstruction of Main Street west of Willard Street, transforming the downtown corridor into a Great Street design that is vibrant, sustainable, and comfortably multi-modal. Demonstrating the benefits of a coordinated corridor by connecting the signalized intersections will provide crucial data regarding transportation safety and equity, inform a new citywide policy and implementation plan for signalized and/or connected intersections across Burlington, and establish the framework for future deployment of signal priority and signal preemption that can systemically improve emergency service and transit access.

## **Scope of Work**

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### ***Equity Index***

The City of Burlington will hire a consulting firm to prepare an Equity Index for Burlington. A multi-disciplinary team of public, private, and community stakeholders will meet regularly to guide the process.

Task 1: Define the domains of equity for Burlington

Task 2: Develop the materials and strategy to collect demographic information

Task 3: Recruit temporary staff to collect data, beginning with ETCE-identified disadvantaged neighborhoods and neighborhoods experiencing a high-than-average number of severe and fatal crashes and/or crashes involving vulnerable users of the roadway.

Task 4: Align the physical-environment domain findings with the updated transportation Action Plan to support evidence-based decision-making for a more equitable transportation system

Task 5: Launch the web-based Equity Index as a tool for residents, planners, stakeholders, and local decision-makers to identify disparities and tackle them in a systemic and coordinated way.

The World Health Organization's Urban Health Equity Assessment and Response Tool and Ottawa, Canada's Neighborhood Equity Index will be a model for Burlington's health equity planning. Burlington's Office of Racial Equity, Inclusion, & Belonging will manage this project.

### ***Main Street Coordinated Intersection Demonstration Project***

Burlington's Department of Public Works will manage the Main Street demonstration project. The Traffic Division will procure and install the new equipment. A consultant will establish baseline data, collect data during the demonstration project, and prepare a report to summarize the findings and recommend systemic improvements for signalized intersections across Burlington. This demonstration will include nine intersections along Main Street / US Route 2: Willard Street, Prospect Street, University Place, Davis Center Drive, University Terrace, University Heights, Spear Street, East Avenue, and Staples Plaza. Each intersection requires unique combinations of equipment that may include Econolite's Cobalt controllers, Miovision Solutions, and cabinets to house the new equipment. The adaptable nature of this equipment allows Burlington to demonstrate a scalable, phased approach to signal-based transportation safety projects, demonstrate the safety and cost-benefits of hardware that can be actively managed for consistent and reliable functionality, and ensure a safe, efficient, and equitable traffic control system for all modes of transportation. This project is anticipated to launch in 2024 and data collection will occur for up to 5 years.

# Supplemental Planning for Safe Streets and Roads for All Burlington, VT Project Budget

## ***Equity Index***

Burlington’s Office of Racial Equity, Inclusion, & Belonging will manage this project. Cost estimates were developed by consulting other health equity index work, local planning efforts, and other local projects. Itemized costs and tasks will be minimally detailed until a consultant is selected, but cost estimates include \$5,000 for participant stipends, approximately 12% of the project cost for personnel to manage this project, and the remainder in consultant fees to complete the data collection and final web-based report.

## ***Main Street Coordinated Intersection Demonstration Project***

Burlington’s Department of Public Works will manage the Main Street demonstration project. Cost estimates were developed by the Traffic Division and reputable vendors to consider considered hardware (controllers, Miovision core, cabinets, cameras, etc.), labor, and data collection and reporting. Estimates were developed based on preliminary assumptions about the itemized components that may be needed at each individual intersection (see Table 1).

The Traffic Division will procure and install the new equipment. A consultant will establish baseline data, collect data during the demonstration project, and prepare a report to summarize the findings and recommend systemic improvements for signalized intersections across Burlington. This demonstration will include nine intersections along Main Street / US Route 2: Willard Street, Prospect Street, University Place, Davis Center Drive, University Terrace, University Heights, Spear Street, East Avenue, and Staples Plaza. Each intersection requires unique combinations of equipment that may include Econolite’s Cobalt controllers, Miovision Solutions, and cabinets to house the new equipment. This project is anticipated to launch in 2024 and data collection will occur for up to 5 years.

**TABLE 1:**

<b>Intersection</b>	<b>Components for the Main Street Demonstration</b>
Willard St	New cabinet, Miovision, Cobalt with EOS
Prospect St	Miovision, Cobalt with EOS
University Place + Davis Center (offset intersections)	Combine controllers, new cabinet, Miovision, Cobalt with EOS
University Terrace	Miovision, Cobalt with EOS
Spear Street	New cabinet, Miovision, Cobalt with EOS
East Ave	New cabinet, Miovision, Cobalt with EOS
Staples Plaza	Miovision, Cobalt with EOS