Opportunities Providing Easier Navigation in Brunswick (OPEN in Brunswick) Project
Maine Department of Transportation

U.S. Department of Transportation (USDOT)
FY 2025 Better Utilizing Investments to Leverage Development (BUILD) Grant Program

MERIT CRITERIA

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The *Opportunities Providing Easier Navigation in Brunswick (OPEN in Brunswick) Project* ("Project") consists of constructing significant safety and connectivity improvements in Brunswick, Maine (Cumberland County) that will drive safety and economic benefits throughout the region. The Project accurately aligns with all BUILD program merit criteria and objectives.

SAFETY

Safety is a primary Project purpose, and numerous safety components of the Project will:

- Reduce fatalities and serious injuries to below the statewide average,
- Protect non-motorized travelers from safety risks,
- Incorporate specific safety improvements as part of a documented risk reduction mitigation strategy, and
- Implement actions and activities identified in USDOT's *National Roadway Safety Strategy*

Problems

In 2022, Maine suffered its highest traffic fatality rate in 15 years.[11] A total of 792 individuals were killed in Maine traffic crashes from 2019 to 2023, an average of 158 fatalities per year.[12] From 2016 to 2021, Maine averaged more than 290 crashes annually involving pedestrians, equating to a person being struck by a motor vehicle every 30 hours, 11 minutes. Unfortunately, more than 91 percent of these reported pedestrian crashes resulted in injury or death to the pedestrian.[13]

Maine Traffic Fatality and Fatality Rates 2019-2023					
	2019	2020	2021	2022	2023
Traffic Fatalities	157	164	153	183	135
Fatalities per 100M Vehicle Miles Traveled	1.06	1.25	1.07	1.27	0.89

Source: TRIP analysis of Federal Highway Administration and National Highway Traffic Safety Administration data

Cumberland County ranked above the state average for the number of roadway fatalities from 2017 to 2021. The county's 105 fatalities amounted to 1.7 times greater than the average U.S. county.[14] Recognizing the need to reverse the trend, the Maine of Transportation ("MaineDOT," "Department") published *Maine's 2022 Strategic Highway Safety Plan*, a comprehensive roadmap to reduce the trend through public awareness messaging, public outreach, and proven project design measures the Department strictly adheres to and thoughtfully incorporates into each project, including the subject of this application. Concurrently, the Town of Brunswick published its *Pedestrian Safety Action Plan* in 2021, detailing comprehensive measures the town enacts to incorporate safety into every infrastructure project, in partnership with the Bicycle Coalition of Maine and MaineDOT.

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[11] Maine Public, https://www.mainepublic.org/maine/2022-12-28/maine-highway-fatalities-reach-15-year-high

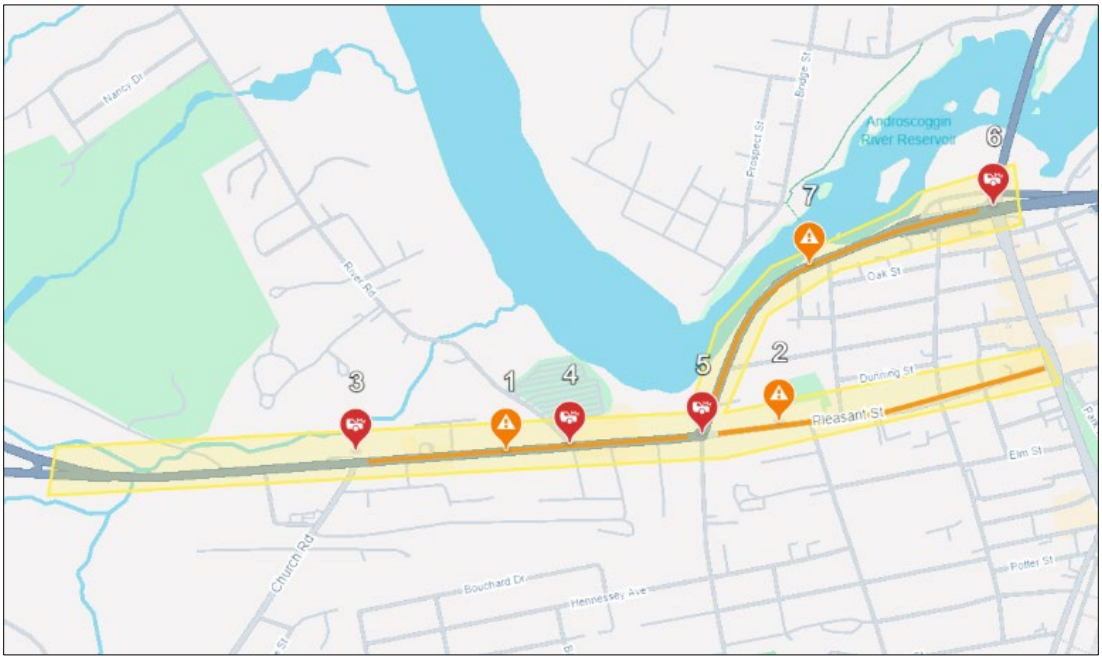
[12] *Keeping Maine Mobile: PROVIDING A MODERN, SUSTAINABLE TRANSPORTATION SYSTEM IN THE PINE TREE STATE*, National Transportation Research Group (TRIP), 2024, page 11, https://tripnet.org/wp-content/uploads/2024/09/TRIP_Keeping_Maine_Mobile_Report_October_2024.pdf

[13] Maine's 2022 Strategic Highway Safety Plan, page 53, https://www.maine.gov/mdot/safety/docs/2023/strategic-hwy-safety-plan_shsp2022.pdf

[14] USDOT's Concentration of Roadway Fatalities Map from the National Roadway Safety Strategy: https://storymaps.arcgis.com/stories/9e0e6b7397734c1387172bbc0001f29b

Census Tract 112.05 is Transportation Disadvantaged due to *Transportation Safety* at the 70th percentile. The Project will directly reduce this burden in a number of ways detailed below. MaineDOT's Office of Safety, Crash Records Section, has recorded the following crash tally in the Project area over the previous three years, noted on the chart and map below:

Map Loc.	Location	K	A	B	C	PD	TOTAL CRASHES
1	Along Pleasant Street west of River Road	0	0	2	5	15	22
2	Along Pleasant Street east of Mill Street	0	1	3	9	41	54
3	Pleasant Street/Church Road Intersection	0	1	1	2	12	16
4	Pleasant Street/River Road Intersection	1	0	2	3	22	28
5	Pleasant Street/Mill Street/Stanwood Street Intersection	0	0	1	2	20	23
6	Mill Street/Cabot Street/Maine Street Intersection	0	1	3	7	30	41
7	Along Mill Street	0	0	4	6	48	58



Above: Locations of high volumes of crashes in the Project area, as detailed in the preceeding table.

Solutions

Traffic signal and pedestrian crosswalk improvements will occur at six intersections in the Project area. Within those intersections, a total of nine new and 17 upgraded pedestrian crosswalks will be constructed.

Project improvements will result in a number of safety benefits:

- The nine new crosswalks installed under the Project, as well as upgrades to 17 crosswalks, result in a crash reduction benefit. Analyzing Crash Modification Factor data for such crosswalks, the Crash Reduction Factor is 40 percent: (Crash Modification Factor [CMF] ID: 4123; CMF: 0.6; Crash Reduction Factor [CRF]: 40 percent)
- A multi-use pathway will be installed along Mill Street where one currently does not exist. Analyzing Crash Modification Factor data for this improvement, the Crash Reduction Factor is 25 percent: (Crash Modification Factor [CMF] ID: 9250; CMF: 0.75; Crash Reduction Factor [CRF]: 25 percent)

- New pavement will replace old and worn-out pavement throughout the Project area using the mill and fill process. Analyzing Crash Modification Factor data for the safety effects of pavement resurfacing, this improvement has a Crash Reduction Factor of 14.2 percent: (Crash Modification Factor [CMF] ID: 9302; CMF: 0.86; Crash Reduction Factor [CRF]: 14.2 percent)
- Rectangular Rapid Flashing Beacons (RRFB) will be installed. Analyzing Crash Modification Factor data for the safety effects of this, the improvement has a Crash Reduction Factor of 69 percent: (Crash Modification Factor [CMF] ID: 11158; CMF: 0.31; Crash Reduction Factor [CRF]: 69 percent)

Above: The photo shows the lack of a defined crosswalk or sidewalk easing into a crosswalk.

Thoughtful Project design components will calm traffic and result in safer speeds while simultaneously providing pedestrian and bicycle users a way to safely travel separated from vehicles. Streets, sidewalks, bicycle facilities, and pathways will be void of hazards such as potholes, uneven surfaces sinking into the ground, overgrown vegetation, and will be easier to clear of snow and ice. Crosswalks will have modern components and will be ADA compliant—upgrading and standardizing crosswalk safety features will reduce injuries and fatalities by a CRF of 40 percent. Safe travel is extremely important for residents living in a region that experiences average annual snowfall of more than 60 inches and where winter conditions can last for six months.[15]

The Project's numerous safety improvements support USDOT's Strategic Goals to make the transportation system safer for all and advancing a future without transportation-related serious injuries and fatalities.[16] The Project improvements also support the region's *Vision Zero* initiative and meet the State's overarching goal to reduce roadway fatalities. Following construction, the speed limit through the Project area will be maintained.

More broadly, according to the National Highway Traffic Safety Administration, the number of traffic and pedestrian deaths in the U.S. dropped in the first half of 2024, attributing the decline to new safety initiatives, such as those resulting from the Project.[17] There were five percent fewer deaths on U.S. local roads. The number of pedestrians killed dropped three percent for the first six months of 2024.

Above: The likelihood of death for pedestrians hit by vehciles increases with the higher speeds. Safety improvements will reduce the threat.

[15] U.S. Climate Data, https://www.usclimatedata.com/climate/portland/maine/united-states/usme0328
[16] USDOT Strategic Plan: https://www.transportation.gov/sites/dot.gov/files/2022-04/US_DOT_FY2022-26_Strategic_Plan.pdf, page 13
[17] U.S. traffic, pedestrian deaths drop with new safety initiatives, U.S. News, Nov. 25, 2024, https://www.upi.com/Top_News/US/2024/11/25/traffic-pedestrian-deaths-decline/5211732589963/

A factor in the decline is the government's *National Roadway Safety Strategy*, guidelines that MaineDOT strictly adheres to. The Department's efforts to improve safety and travel reliability include:[18]

- Developing *Maine's Strategic Highway Safety Plan* in cooperation with state and local police, Maine Bureau of Highway Safety, Maine Bureau of Motor Vehicles, Maine Turnpike Authority, Maine Motor Transport Association, Maine Emergency Medical Services, and the American Automobile Association (AAA). This Plan identifies focus areas where safety improvements can be implemented to reduce serious injuries and fatalities. This is the overarching document MaineDOT uses to thoughtfully integrate safety measures into each infrastructure project to reduce injuries and fatalities. The Plan was used to help MaineDOT and the Town identify and incorporate the specific safety components of the Project, including the need for additional crosswalks, sidewalks void of potholes and overgrown vegetation, more pronounced curbs to help today's larger vehicles remain in the roadway, and the barrier wall separating the Androscoggin Riverwalk from Mill Street.
- Implementation of "Roadway Safety Audits" performed in conjunction with municipalities, public safety agencies, and others to identify safety deficiencies that can be addressed as stand-alone projects or in conjunction with other planned work. The Project location was identified through a safety audit as part of the comprehensive *Pleasant Street Corridor Transportation Study, Final Report*.
- Bicycle and pedestrian efforts include safety improvements, preservation of existing facilities, expansion of existing facilities, new infrastructure, and modifications to existing infrastructure through MaineDOT's Complete Streets and Road Diet initiatives. The Project's direct components of these safety improvements were identified though the *Androscoggin Brunswick-Topsham Riverwalk Feasibility Study*. Under these efforts, a direct Project component calls for constructing a barrier wall between the multi-use pathway and Mill Street.

ENVIRONMENTAL SUSTAINABILITY

With more than 9,200 feet of sidewalk being constructed or reconstructed, as well as a convenient 1,500-foot multi-use pathway, the Project will result in increased use of non-motorized transportation options—improving Environmental Sustainability is a primary Project purpose.

Problems

The two Project census tracts experience several environmental burdens, as seen in the table to the right.

The current state of conditions in the Project area are not welcoming of non-motorized transportation, even for short trips to stores and restaurants.

Census Tract	Environmental Burden	Percentile (National)
112.04	Railways Proximate	76th
	Impaired Surface Water	69th
112.05	Hazardous Sites Proximity	68th
	Toxic Release Sites Proximity	75th
	Pre-1980s Housing	88th
	High-Volume Road Proximity	86th
	Railways Proximity	93rd
	Airports Proximity	72nd
	Impaired Surface Water	69th

[18] *Keeping Maine Mobile: PROVIDING A MODERN, SUSTAINABLE TRANSPORTATION SYSTEM IN THE PINE TREE STATE*, National Transportation Research Group (TRIP), 2024, page 5, https://tripnet.org/wp-content/uploads/2024/09/TRIP_Keeping_Maine_Mobile_Report_October_2024.pdf

Solutions

- *Reduce transportation-related air pollution and greenhouse gas emissions*:

The Project will reduce transportation-related air pollution and greenhouse gas emissions by expanding affordable transportation options as well as reducing transportation-related air pollution and greenhouse gas emissions through the construction of the two-way roadway on Pleasant Street. These improvements will yield significant emissions savings as 199,655 vehicle trips will experience a reduction of 0.3 miles on each trip and avoid a congested intersection, resulting in a reduction of CO_2 and Non-CO_2 emissions resulting in roughly $121,180 in estimated benefits.

- *Align with Maine's Carbon Reduction Strategy*:

MaineDOT is methodically focusing on statewide environmental improvements, and the Town has placed climate change mitigation and adaptation high on its list of priorities, as well. Maine's climate action plan, *Maine Won't Wait*, outlines actions to achieve carbon neutrality by 2045, reduce emissions 45 percent by 2030 and 80 percent by 2050, and transition to 80 percent renewable energy by 2030 with a goal of 100 percent by 2050. Similarly, the region's long-range transportation plan, *Connect 2045*, has a goal to reduce emissions by 70 percent by 2045.

- *Transportation-efficient land use and design, such as drawing on the features of historic towns and villages that has walkable development patterns, accessible green space, neighborhood centers convenient to take fewer or shorter trips*:

Brunswick is fortunate to have a walkable historic downtown and a primary downtown thoroughfare lined with merchants, restaurants, and boutique stores. Brunswick's leaders have transformed the canvas of historic buildings into a vibrant city center. However, the streets that feed into the historic district are uninviting to motorists and alternative transportation users, as well as tourists. The Project will remedy that concern.

The Project calls for completion of the multi-use pathway that is currently inconvenient to use because it does not connect to downtown. As a result, residents have become increasingly disappointed by the void. Completing the path will allow residents living north and west of the Androscoggin River to connect more easily to Brunswick's historic downtown and businesses along Pleasant Street.

QUALITY OF LIFE

Quality of Life is a primary purpose of the Project given the creation of convenient connections, propensity to foster a healthy lifestyle, improved aesthetics, and restoration of the sense of pride residents will feel in their neighborhoods. Completion of the Project will result in significant and direct benefits:

- Increasing affordable transportation choices by improving non-motorized transportation opportunities while reducing vehicle dependence.
- Improving access to daily destinations like jobs, healthcare, grocery stores, recreation, and parks through non-motorized transportation.

Problems

Residents experience a number of quality of life-related burdens:

Census Tract	Environmental Burden	Percentile (National)
112.04	Lack of Internet Access	66th
	Endemic Inequality	80th
	65 or older	95th
	Disability	85th
112.05	Lack of Internet Access	69th
	Endemic Inequality	69th
	65 or older	86th
	Disability	76th

The current infrastructure directly decreases the quality of life residents and tourists experience, for many of the same reasons the infrastructure creates burdens on **Environmental Sustainability** and **Mobility and Community Connectivity** in the area. It is difficult to utilize affordable transportation options to connect to everyday needs when sidewalks are deteriorating, crosswalks do not exist, and an important multi-use pathway is disconnected. These drawbacks are costly and detract from a sense of connection and community pride. Tourists who do not know the area as well as residents do are also unwilling to walk to destinations they otherwise could when the conditions of sidewalks and crosswalks are actively deteriorating and seem unsafe.

Above: Residents are unmotivated to walk and bike when asphalt sidewalks are decaying, cracked, full of weeds, and sinking into the ground.

The percentile of residents in the Census Tracts facing *Disability* is 85th (Tract 112.04) and 76th (Tract 112.05), meaning many residents needing ADA-compliant infrastructure could face challenges simply crossing the street. Under the Project, nine new and 17 upgraded crosswalks will contain ADA-compliant features.

The 1,500 feet of new multi-use pathway will create a 35-percent increase in the size of the path and a direct connection from the entire town of Topsham (on the other side of the Androscoggin River) to downtown Brunswick and the historic Cabot Mill.

As the primary route into Town from busy Interstate 295 and US 1, Pleasant Street is the gateway to Brunswick. The poor and outdated condition of the street, intersections, curbs, and adjacent sidewalks reveal an old and deteriorating gateway. That can be challenging to use during the winter season. The region experiences an average annual snowfall exceeding 60 inches and winter conditions can last for six months.[19]

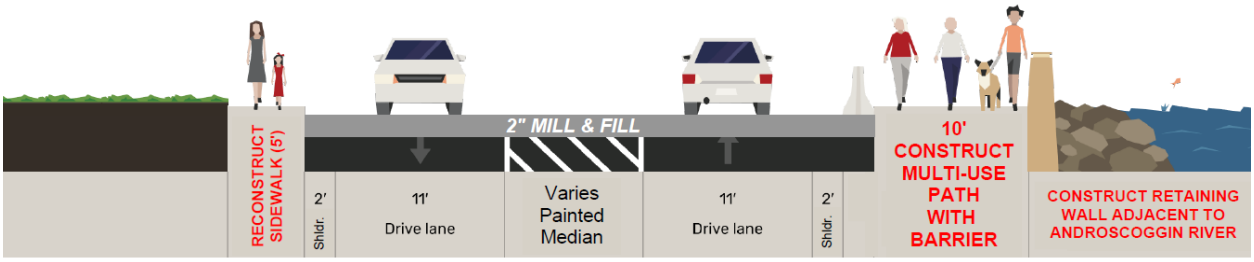
[19] US Climate Data, https://www.usclimatedata.com/climate/portland/maine/united-states/usme0328

Solutions

Living near a multi-use pathway supports the health of individuals. The American Trails organization reports, "Not only do communities with high quality biking and walking infrastructure see health improvements in their citizens, those health improvements translate into real medical savings for those communities. In fact, in a 2011 literature review by the American Heart Association, the organization found that for every $1 invested in building trails there is a direct correlation to $3 of saved medical costs."[20]

Project funding would continue to support Brunswick's ongoing desire to improve downtown. Quality of life enhancements would occur through a combination of BUILD Project benefits in concert with the **Frank J. Wood Bridge Replacement Project** and the **Downtown Streetscape Enhancement Project**. Together these projects will create a new bridge into town from the north, resurfaced streets, new curbs, sidewalks, driveway ramps, ADA-accessible ramps, tree pits, streetscape amenities (trash receptables, bike racks, benches), pedestrian lighting, and street signage—all located downtown. The Town has taken great initiative to begin these improvements, which will be strengthened and enhanced by this Project.

To ensure quality of life and connectivity throughout construction, MaineDOT and the Town will ensure disruptions during constriction are minimal. There will be no displacement of residents or commercial properties during construction or following completion of the Project. There will be periodic travel lane and sidewalk closures, but those will be minimal, and planners will avoid closing a street unless absolutely necessary and in conformance with maintaining accessible pedestrian routes as required. Ingress and egress to homes and business will remain throughout construction. There will be no disruptions to public transportation services. Noise pollution during construction will be kept minimal. Detour routes will be mindful of neighborhood traffic patterns. The Project will not impede snow removal in winter months.



Above: A rendering of a reconstructed Mill Street with the multi-use pathway with barrier between the street and the path.

MOBILITY AND COMMUNITY CONNECTIVITY

Creating new and enhanced mobility and community connectivity is a primary Project component. The Project:

- Improves system-wide connectivity with better access to transit and micro-mobility,
- Implements plans, based on community participation and data, to address gaps and challenges in the town's existing network,

[20] American Trails, February 2020, https://www.americantrails.org/resources/health-benefits-of-trails

- Removes physical barriers by reconnecting communities to direct, affordable transportation options,
- Includes transportation features that increase the accessibility for non-motorized travelers, and
- Incorporates Universal Design improvements that supplement ADA requirements by designing environments usable by all without the need for adaption or specialized design

Problems

Residents of Census Tract 112.04 are Transportation Disadvantaged due to a lack of *Transportation Access* at the 88th percentile. Residents of Census Tract 112.05 are Transportation Disadvantaged due to *Transportation Cost Burden* at the 66th percentile. One way the Project will reduce these burdens is by constructing or improving 26 crosswalks, which one resident describes as currently burdensome:

> "The intersection of Mill, Pleasant and Stanwood has weak connections for pedestrians. I'd like to see crosswalks on all four sides of the intersection…Similarly, River Rd, Webster and Pleasant could be enhanced by having crosswalks on all sides. Right now, it's really inconvenient for walkers."
>
> Regards,
> William Steinbock

Like many historic towns over the past few decades, Brunswick is working to transform downtown while simultaneously improving adjacent neighborhoods that encompass residences and commercial businesses offering everyday needs. But that attempt to grow and create real change is hindered by aging infrastructure that was not created using Universal Design principles. That has created connectivity burdens downtown and in adjacent neighborhoods—requiring funding to remedy. The connectivity barriers create challenges for public transit users, walkers, bicyclists, micro-mobility users, and even snowmobilers, a popular and often necessary mode of transportation during heavy winter snowfalls. Original infrastructure design was vehicle-centric, preventing the desire or ease of using non-motorized transportation. Original infrastructure of the past was also void of ADA-compliant accessibility features.

Like many college towns, Brunswick embraces its connection to the arts. The annual summertime Brunswick Outdoor Arts Festival, the largest event Brunswick Downtown Association hosts, is an example of why the Town needs infrastructure that fosters easily accessible paths from neighborhoods to downtown.

Solutions

By making Pleasant Street two-way, travel time savings will accumulate for 547 daily vehicles by 0.3 miles, per a MaineDOT traffic analysis model, by not having to take a longer reroute. Vehicles will avoid additional congestion time of three minutes at a primary town intersection.

Reconstructed sidewalks, crosswalks, and a completed multi-use pathway will create connections for residents to downtown, their neighbors, and everyday needs. Connectivity to public transportation will improve because sidewalks leading to bus stops will be more inviting and user-friendly. The bus stop at the corner of Pleasant Street and Church Road will be entirely rebuilt, including with the addition of three walls and a cover. All of these improvements create the ability to conveniently and safely use public transportation. Public bus transportation that traverses the Project area includes the town's *Brunswick Link* local bus service, a fixed-route

transportation operated by a non-profit regional transit corporation. To serve riders unable to access a regular bus stop due to a disability, complementary ADA service is offered providing curb-to-curb service near and within the *Brunswick Link* route. The Greater Portland Metro BREEZ is also available, providing regional service between Brunswick and Portland with two stops on Pleasant Street—at Church Road and River Road—plus other adjacent stops outside of the Project area.[21]

Above: The current bus stop at the corner of Pleasant Street and Church Road is just a sign on a pole.

The Project will complement other important transit operations serving Brunswick, although not located within the Project area:

- Western Maine Transportation Services BlueLine Commuter bus regional service providing service to Bath/Lewiston.[22]
- Concord Coach Lines, a private intercity bus service with a Brunswick stop at the town's train station[23]
- Amtrak *Downeaster* service providing intercity passenger rail between Brunswick and Boston.[24]

ECONOMIC COMPETITIVENESS AND OPPORTUNITY

Economic Competitiveness and Opportunity is a primary Project component. The Project will:

- Facilitate tourism opportunities
- Promote wealth building
- Promote long-term economic growth and other broader economic and fiscal benefits

Problems

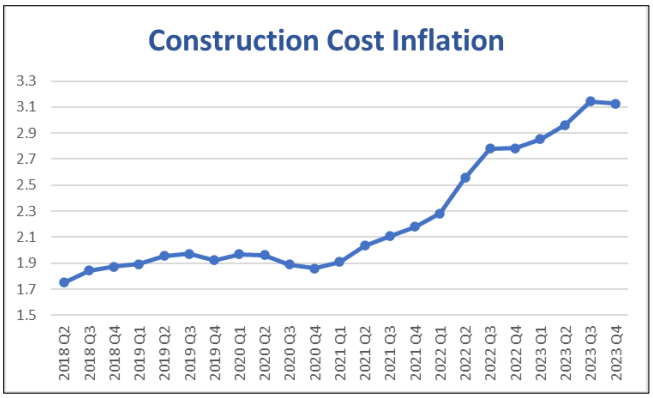
Residents of Census Tract 112.04 face *Unemployment* at the 70th percentile and *Lack of Internet Access* at the 66th percentile. Residents of Census Tract 112.05 face Housing Tenure at the 88th percentile, *Housing Cost Burden* at the 75th percentile, and *Lack of Internet Access* at the 69th percentile.

Like many areas in Maine, Brunswick competes for a share of the state's $8.6 billion tourism industry which contributes nearly $5.6 billion in earnings to Maine households. Detracting from the appeal for tourists in Brunswick, however, is the visual lack of attractiveness and challenges of connectivity that the Project area suffers from. While only a few miles from Maine's scenic coastline, other coastal communities may appeal to tourists more than Brunswick does because they may have aesthetically appealing streets void of potholes, deteriorating sidewalks, and curbs

[21] Greater Portland Metro, https://gpmetro.org/313/Metro-BREEZ
[22] Western Maine Transportation Services, https://wmtsbus.org/blueline-commuter/
[23] Concord Coach Lines, https://concordcoachlines.com/
[24] Amtrak *Downeaster* Service, https://amtrakdowneaster.com/

that do not visually frame a street.

Outdated streets and intersections make getting to and from work a challenge, which can affect an individual's ability to create wealth. Shopkeepers also suffer when residents and tourists are unable to reach businesses efficiently, no matter what mode of transportation they choose.

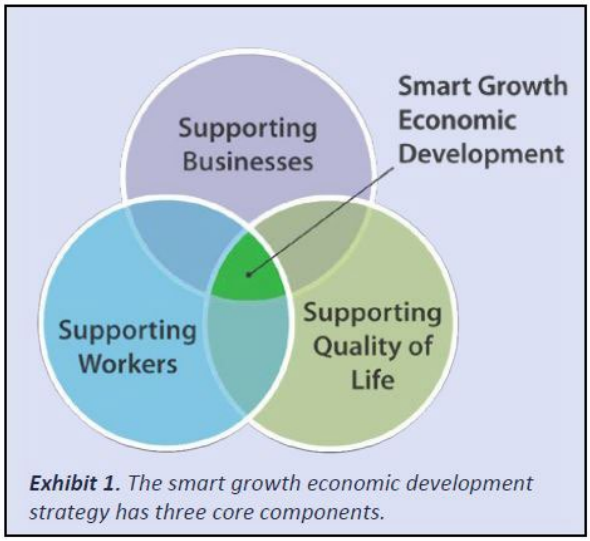


Above: Construction costs have inflated significantly over time, creating challenges for municipalities to complete needed repairs and projects. Source: Keeping Maine Mobile: PROVIDING A MODERN, SUSTAINABLE TRANSPORTATION SYSTEM IN THE PINE TREE STATE, Tripnet.org, 2024

The Project is long overdue. The cost of making road repairs can increase dramatically as the length of time between repairs increases. The Federal Highway Administration's national highway construction cost index, which measures labor and materials cost, increased by 43 percent in 2022 and 2023 and by 68 percent since the beginning of 2021.[25] These high costs tend to reduce the number of infrastructure projects able to be completed which, in turn, results in additional wear and tear on vehicles and inefficient paths to jobs and economic advancement.

Solutions

The Environmental Protection Agency identifies three core components of a smart growth economic development strategy: supporting businesses, supporting workers, and supporting quality of life.[26] Better infrastructure will entice people to open small businesses, both downtown and in the surrounding neighborhoods; the economy will strengthen broadly. Studies show that by improving the condition of sidewalks alone, all three smart growth economic development measures are addressed and benefit both businesses and residents.



Above: The EPA's Smarth Growth Economic Development strategy includes supporting businesses, workers, and quality of life. Source: FRAMEWORK FOR CREATING A SMART GROWTH ECONOMIC DEVELOPMENT STRATEGY: A TOOL FOR SMALL CITIES AND TOWNS United States Environmental Protection Agency, January 2016, page 3

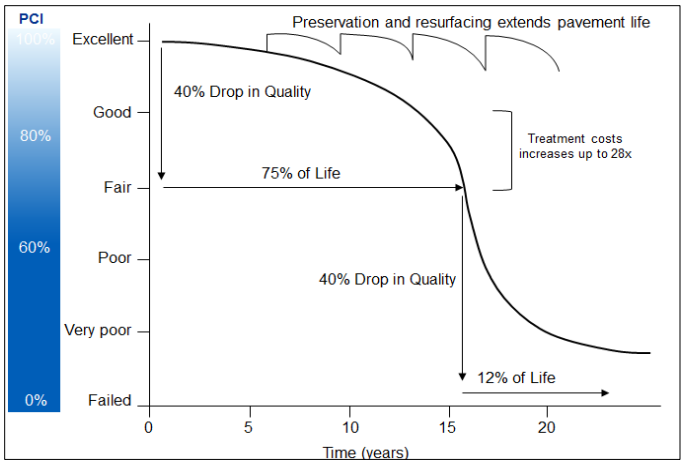
Tourist dollars save every Maine household $2,172 in state and local taxes in 2022.[27] This helps directly address the *Housing Cost Burden* faced by residents living in the Project Census Tracts. That savings can contribute to economic

[25] *Keeping Maine Mobile: PROVIDING A MODERN, SUSTAINABLE TRANSPORTATION SYSTEM IN THE PINE TREE STATE*, National Transportation Research Group (TRIP), 2024, page 2, https://tripnet.org/wp-content/uploads/2024/09/TRIP_Keeping_Maine_Mobile_Report_October_2024.pdf

[26] FRAMEWORK FOR CREATING A SMART GROWTH ECONOMIC DEVELOPMENT STRATEGY: A TOOL FOR SMALL CITIES AND TOWNS United States Environmental Protection Agency, January 2016, page3, https://www.epa.gov/sites/default/files/2016-01/documents/small_town_econ_dev_tool_010516.pdf

[27] Maine Office of Tourism Highlights, 2022, https://motpartners.com/wp-content/uploads/2023/03/MOT_GovCon_HighlightSheet_2022.pdf

opportunity by affording households the opportunity to purchase necessities like internet access, which directly addresses another burden in the Project Census Tracts.



Above: Pavement Condition Cycle Time with Treatment and Cost. Source: *Keeping Maine Mobile: Providing A Modern, Sustainable Transportation System in The Pine Tree State*, page 9

STATE OF GOOD REPAIR

Problems

The current infrastructure has far exceeded its useful life, can be a safety concern, and is both cosmetically and technologically outdated. The amount of traffic, moisture levels, and the regional climate are all factors contributing to pavement failure. Moisture works its way through road surfaces and into the road foundation. Intersections are more prone to deterioration because standing or slow-moving vehicles subject the pavement to higher levels of stress. That is why the Project's mill and fill measures are critical—to repair streets before they require ongoing and costly band-aid style repairs. Reconstructing roads costs approximately four times more than resurfacing them via mill and fill.[28]

Solutions

Repairs to sidewalks and crosswalks are necessary to ensure, most importantly, that the infrastructure is safe, but also that it is visually appealing to convey a sense of community pride.

In the long run, the Project will eliminate many costly and time-consuming repairs—everything from the need to repair developing street and sidewalk potholes to complete sewer replacements. Today's construction materials are better equipped to withstand drastic changes in temperature. All improvements will take place within the existing infrastructure footprint. The Project aims to replace outdated and non-compliant safety features including crosswalks, sidewalks, signage, and traffic lights. Utility lines on poles will be buried to greatly reduce safety concerns, maintenance costs, exposure to the elements, and aesthetics.

Making repairs often results in the need to close streets and create lengthy detours. Detours to pedestrian facilities can be especially troubling because they discourage their use. Care will be taken to keep as much infrastructure open as possible during construction.

MaineDOT and Brunswick are very experienced planning and designing projects in a manner consistent with reducing future costly and time-consuming burdens of maintenance and repairs. Following construction, pavement preservation will be the responsibility of MaineDOT and all other infrastructure components will be the responsibility of the Town of Brunswick.

[28] *Keeping Maine Mobile: PROVIDING A MODERN, SUSTAINABLE TRANSPORTATION SYSTEM IN THE PINE TREE STATE*, National Transportation Research Group (TRIP), 2024, page 8, https://tripnet.org/wp-content/uploads/2024/09/TRIP_Keeping_Maine_Mobile_Report_October_2024.pdf

PARTNERSHIP AND COLLABORATION

Problems

Residents of Brunswick, those visiting from the surrounding region, and tourists all face the challenges that plague the Town's current infrastructure. But all must have a say in the design of replacement infrastructure. The new infrastructure will last for decades, and when residents do not have a say in Project design, they will feel forced to deal with new challenges that could have been avoided.

Public Input

Brunswick residents take pride in their community and in ensuring their voices are heard when public meetings take place. MaineDOT and the Town of Brunswick have held numerous community meetings to receive input from residents about the documented studies that have taken place, for both the various street components, as well as the Riverwalk connection component, to help guide Project design. Several public involvement meetings were held to obtain feedback and present the findings of the studies to guide town council approvals.

- ✓ *Pleasant Street Corridor Transportation Study Final Report* public engagement sessions included a total of 130 public comments, a combination of written and in-person comments during meetings:
  - July 11, 2019 – Brunswick Downtown Association.
  - July 15, 2019 – Brunswick Town Council Workshop
  - September 9, 2019 – Meeting with Fort Andross and riverfront businesses
  - September 12, 2019 – Public Meeting with a summary of comments noted:
    - Pedestrian safety needs to be improved at Mason Street and Cabot Street intersections.
    - It was noted that signalization would help with pedestrian safety.
    - Integration with the Riverwalk Trail is important.
    - A 2-lane roundabout, proposed at one time but later removed due to public opposition; residents noted it would not be ideal for pedestrians and could present a barrier to Riverwalk Trail use.
    - Construction impacts from the Frank J. Wood Bridge and the Pool Table Bridge could harm downtown; therefore, be mindful not to continue construction throughout several years.
    - The Stanwood/Mill/Pleasant Street intersection remains one of the more serious traffic and congestion issues facing Brunswick.
    - Since the Fort Andross Mill site is now a retail center, residents want to ensure that the current amount of parking spaces is not reduced.
    - Removal of the left turn into and out of the Mill received opposition.
  - October 24, 2019 – Brunswick Town Council Workshop on Study
  - November 4, 2019 – Brunswick Town Council Accepts Study Recommendations

- ✓ *Riverwalk Feasibility Study* public engagement included (pages 21, 22):
  - An Advisory Committee Kick-Off meeting was held on December 11, 2018
  - An Advisory Committee Working Session status meeting held on November 22, 2019
  - Riverwalk Committee Meetings to present the Draft and Final Recommendations, held on May 27, 2020, via Zoom

- Town Council Meeting held on October 4, 2021, where town staff reviewed the Riverwalk project with the Town Council, who unanimously approved the component

Solutions

Community members have been provided numerous opportunities to voice input, both in person and online. MaineDOT's previous and future community outreach is consistent with its Public Involvement Plans, which outline the Department's efforts to ensure disadvantaged populations are afforded meaningful opportunities for public involvement.

MaineDOT welcomes working with USDOT to identify and measure metrics that assess Project benefits. MaineDOT is very experienced, with systems in place to gather baseline data and establish ongoing measurements that ensure Project intentions are realized.

INNOVATION

Problems

MaineDOT effectively develops innovative ways to solve design, construction, and financing challenges that could create roadblocks and otherwise slow the advancement of a project. The Department also creates partnerships to aid the design and financing of complex projects. MaineDOT will continue to apply innovative solutions to any problems that arise.

Solutions

✓ *Innovative Technologies*

Innovative traffic control signaling and signage are key aspects of the Project so all users can reach their destinations safely and promptly. Project components will adhere to the recently updated *Manual on Uniform Traffic Control Devices for Streets and Highways, 11th Edition* to ensure all improvements reflect the most up-to-date safety measures for all road users.[29] Safety features such as separated bike/ped facilities and rapid flashing beacons at all crosswalks, which currently do not exist in the Project area, are included in Project intersection improvement design, Adaptive signals will be installed on Pleasant Street. Additionally, all new lighting will utilize LEDs. LED lighting offers numerous benefits such as longevity, cost-effectiveness, energy efficiency, and resiliency under extreme temperatures.

✓ *Innovative Project Delivery*

MaineDOT has a NEPA Categorical Exclusion Assignment Memorandum of Agreement between FWHA Maine Division and the Department, under 23 U.S.C. §326 dated October 2024. Under the Agreement, MaineDOT assumes Federal FHWA responsibility for Categorical Exclusion determinations, environmental reviews, consultations, and NEPA Certifications without involvement or oversight from FHWA Maine Division or Headquarters. The Agreement reduces review and approval times by allowing MaineDOT to make project-related decisions. MaineDOT is also applying an innovative NEPA and permitting process for the Project by utilizing Programmatic Agreements to ensure timely and consistent reviews, as described in the *Project Readiness* section of the application.

✓ *Innovative Financing*

Innovative financing is not a Project component.

[29] Manual on Uniform Traffic Control Devices for Streets and Highways, 11th Edition, https://mutcd.fhwa.dot.gov/