

I-95 Accessibility Improvements Minimizing Heavy-Truck Impacts Project (I-95 AIM HI)
Maine Department of Transportation

U.S. Department of Transportation (USDOT)
Federal Highway Administration (FHWA)
FY 2024 Bridge Investment Program (BIP) Grant Opportunity
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PROJECT NARRATIVE

I. BASIC PROJECT INFORMATION – DESCRIPTION, LOCATION, AND PARTIES

Project Description

The *I-95 Accessibility Improvements Minimizing Heavy-Truck Impacts Project (I-95 AIM HI)* (“Project”) consists of replacing six bridges carrying rural roads over Interstate 95 (I-95) in Kennebec County, Maine. The structures, all built in the late 1950s as interstate construction advanced northeast, are located in a priority corridor and are at risk due to insufficient vertical clearances, outdated geometric design, and deterioration. The overpasses are located on the National Bridge Inventory (NBI) and rated either poor or fair. The rating category of the bridges is expected to decrease within the next three years. They require replacement because they are unable to accommodate excess-height vehicles passing under them and contain weakening components due to their age.

Location (South to North)	NBI Structure Number	Bridge Condition	Average Daily Traffic
I-95 at Dinsmore Road Bridge	5782	Fair	586
I-95 at Lyons Road Bridges	1463; 5783	Fair; Poor	Both: 1,709
I-95 at Drummond Road Bridge	5784	Fair	464
I-95 at Town Farm Road Bridge	5785	Fair	306
I-95 at Trafton Road Bridge	5812	Fair	472

Lyons Road contains two adjacent bridges separately traversing northbound and southbound interstate lanes. The Maine Department of Transportation (MaineDOT; Department) is the sole applicant of this rural Project. The Project, a bridge bundle, aligns with USDOT priority considerations and sets forth the important goal of replacing the bridges to eliminate a number of deficiencies:

Geometry:

- All bridges are obsolete due to insufficient vertical clearance
- All bridges have insufficient narrow shoulders
- All bridges have guardrails incompliant with today’s standards

Project Outcome: Ensure all bridges meet current Federal and state geometric design standards, including vertical clearance requirements.

Condition:

- Five bridges are in fair condition and likely to rapidly deteriorate to poor condition in the next three years
- One bridge is currently in poor condition and likely to suffer closure or experience a permanent weight restriction in the next three years

Project Outcome: Eliminate bridge condition deficiencies.

Economy:

As a rural state, Maine’s economy is shaped by industrial and agricultural businesses that rely on the rural road network to connect goods to markets. For rural businesses, detour time and

mileage resulting from a rural road or bridge closure is much more lengthy and costly than in urban areas. Excess-height trucks strike the bridges periodically due to their outdated geometric design; the bridges have vertical clearances ranging from 14 feet to 15 feet. Some bridge strikes are reported to authorities while—perilously—many are not, only to be discovered later during routine inspections. That is why the Project is so important to the state’s economy. For passengers, road closures result in similar time delays and an increased use of fuel. The Project will reduce the threat of these costly challenges by:

- Preventing passenger and freight disruptions
- Minimizing traffic impacts to the traveling public
- Minimizing property impacts to nearby businesses and land owners

Project Outcome: Ensure Maine’s economy thrives with reliable transportation in a rural region and along the state’s most important and traveled corridor.

The Project conforms to the *Bridge Project Grant* category and is consistent with BIP goals. The overpasses, all listed on the NBI, are located on I-95 north of Augusta, the state capital. They carry key rural routes over I-95, connecting rural residents to service centers and employment opportunities. First responders rely on the overpasses to quickly reach rural areas. The bridges also provide necessary connections between rural areas in southern Maine and highly populated coastal areas. Average Daily Traffic (ADT) counts on the bridges range from 306 to 1,709 vehicles. ADT on I-95 is 17,370 vehicles for northbound traffic and 16,390 for southbound traffic.

Decaying concrete and steel, in addition to bridge strikes, contribute to the bridges’ deteriorating condition. MaineDOT considered a number of options to remedy the problems; none proved economically viable. The Department will construct the new bridges to meet the Federal and state vertical clearance requirement of 16 feet.

The Department is methodically rebuilding bridges along the I-95 corridor to return the interstate to a state of good repair, meet geometric bridge requirements, and ensure the interstate and adjacent rural roads can safely support current and future capacity requirements. Given the high replacement costs and number of bridges to rebuild along the corridor, the Department is unable to perform the work without BIP funding since the need is so great. Most I-95 overpasses were constructed during the same era—the 1950s to 1970s—as the interstate took shape. They are now deteriorating concurrently. In addition to the corridor’s overpasses, many bridges that carry the interstate surface are aging as well. MaineDOT has **98 bridges** carrying the interstate that are rated in *Poor* condition, *Fair* condition and soon to be *Poor*, that do not meet minimum vertical clearance standards themselves, or a combination thereof. The Department estimates the cost to reconstruct all 98 bridges to be approximately \$1.2 billion and take more than a decade to complete given available resources. In addition to the interstate-carrying bridges, there are **56 bridges** that pass over the interstate, including the Project bridges, with a minimum vertical clearance less than 16 feet. Replacing more than 150 bridges would deplete the state’s limited transportation budget.

While attempting to adequately fund replacement of bridges along the interstate, the Department is simultaneously focused on replacing additional NBI bridges throughout Maine. The state’s scenic topography, which attracts tourists and is admired by residents, requires expensive

infrastructure to support mobility. Numerous coastal inlets, as well as inland lakes, rivers, and streams, all require a network of capital-intensive bridges in urban and rural areas to maintain connectivity.

Previously incurred expenses as of March 2024 total \$1,188,421 and covered initial Project engineering and right-of-way review.

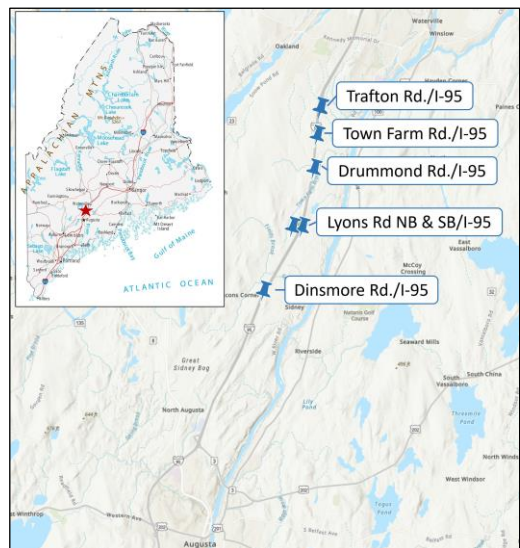


Typical current bridge (top) and future bridge.

The new overpasses will be constructed on approximately the same roadway alignments and on the existing footprints as the current structures. There may be some adjustments to the Trafton Road bridge for maintenance of traffic during construction, however the overall impacts will be minimal to the area surrounding the structure. The Lyons Road and Trafton Road overpasses are located at I-95 interchanges, with adjacent on- and off-ramp systems, of which access to will be maintained during Project construction. A profile view of the existing bridge, as well as a rendering of a potential Project bridge alternative, follows. The look and feel of the new bridges may change only slightly from the rendering.

Project Location

The Project includes six bridges located within a 6.5 mile stretch of I-95 in central Maine. Five Project bridges are within the town limits of Sidney and



Census Tract 23011017000 (Tract 170). One Project bridge is within the city limits of Waterville and Census Tract 23011024202 (Tract 242.02). According to the FHWA HEPGIS tool, all Project bridges are in a 2020 Census-designated Rural Area.¹ The Project is not located in an Area of Persistent Poverty or Historically Disadvantaged Community. The bridges provide direct and important connections to the National Highway System and National Highway Freight Network (NHFN), of which I-95 is the only NHFN route in the region. The route handles truck volume of 3,376 ADT, and trucks are the only way to transport freight for most rural communities in Maine, especially those located in the state’s north region. The route is Maine’s primary truck link to the rest of the nation and much of Canada.

Criteria	Dinsmore Rd., Lyons Rd. (NB&SB), Drummond Rd., Town Farm Rd. Bridges	Trafton Road Bridge
Location	Town of Sidney, Kennebec County, Maine	City of Waterville, Kennebec County, Maine
Census Tract	23011017000 (2020 and 2010)	23011024202 (2020) 23011024200 (2010)
Congressional Representation	ME’s 2 nd District Jared Golden (D) U.S. Senators Susan Collins (R) and Angus King (I)	ME’s 1 st District Chellie Pingree (D) U.S. Senators Susan Collins (R) and Angus King (I)
2020 Census Designated Rural	Yes	Yes
Area of Persistent Poverty	No	No
Historically Disadvantaged Community	No	No

The southernmost bridge is eight miles north of Maine’s capital, Augusta (UACE 04195), while the northernmost bridge is four miles southwest of the City of Waterville (UACE 92782). I-95 and the Project area connects these 2020 Census-designated Urban Areas, but all Project bridges are outside of the Urban Area boundaries. The rural Town of Sidney (2020 Census Population 4,645) relies on the overpass bridges to reach nearby cities.

The Project is a MaineDOT priority and included in the Department’s *Statewide Transportation Improvement Program (STIP) for 2023–2026*.² It is also located in Maine’s *Three-Year Work Plan 2024 Edition*.³ A KMZ file accompanies the application.

Lead Applicant

MaineDOT, the sole applicant, is the state agency responsible for managing and funding all transportation modes statewide. Employing approximately 1,600 personnel, the Department expends and disburses more than \$1 billion annually, including Federal-aid highway program funds as well as state and local funds. MaineDOT performs extensive analysis of infrastructure conditions to select projects for funding that have the most immediate impact and align with USDOT and state transportation goals. The Department is an experienced, thorough, and

¹ FHWA HEPGIS Tool: <https://arcg.is/1SLWK8>

² *Statewide Transportation Improvement Program (STIP) for 2023–2026*, <https://www.maine.gov/mdot/stip/>, page 60, 101

³ *Three-Year Work Plan 2024 Edition*, https://www.maine.gov/mdot/projects/workplan/docs/2024/2024_Work_Plan_Final.pdf

responsible recipient of previous TIGER, FASTLANE, BUILD, RAISE, INFRA, and CRISI grant funding. USDOT can rely on the Department to meet obligation and construction deadlines without risk.

Other Public and Private Parties

There are no other public or private parties or funders involved in delivering the Project.

Additional Eligibility Requirements

The bridge is not located on a highway on which pedestrians or bicyclists are allowed to operate at each end of the bridge.

II. NATIONAL BRIDGE INVENTORY DATA

All six bridges are listed on the National Bridge Inventory. Detailed bridge data are located in the Bridge Project Application Template.

III. PROJECT BUDGET – GRANT FUNDS, SOURCES, AND USES OF ALL PROJECT FUNDING

The Project is considered a BIP Bridge Project. The overall cost breakdown is below with a detailed Project budget by bridges included in the application:

Costs	BIP	Other Federal	MaineDOT	Totals
Previously Incurred Preliminary Engineering (PE)	\$0	\$800,000	\$388,341	\$1,188,341
Previously Incurred Right-of-Way (ROW)	\$0	\$0	\$80	\$80
Preliminary Engineering	\$2,000,000	\$0	\$500,000	\$2,500,000
Right-of-Way (ROW)	\$60,000	\$0	\$15,000	\$75,000
Construction (CON) & Construction Engineering (CE) - Includes 3% inflation	\$58,782,151	\$0	\$14,695,538	\$73,477,689
Contingency - 15%	\$8,817,323	\$0	\$2,204,331	\$11,021,653
Totals	\$69,659,474	\$0	\$17,414,868	\$87,074,342
Percentage of Project Totals (participating)	80%	0%	20%	100%
MaineDOT match is 20%, previously incurred costs are an additional 1.3% of total project costs.				

MaineDOT has the non-Federal match funding available. A funding commitment letter accompanies the application. Project match funding will be sourced from State Funds. No Project funding is contingent upon satisfying a condition or available for expenditure only during a fixed period. None of the funds are subject to Federal limits. The budget is segmented into *Grand Total Budget* as well as *Project Budget* components. Both versions of the budgets do not exceed the Federal cost share requirements. The *Project Budget* includes all eligible costs for the grant request. It excludes previously incurred costs. It consists of Project Engineering (PE), Right-of-Way (ROW), Construction (CON), Construction Engineering (CE), a 15-percent contingency factor, and a 3-percent inflation factor (over five years). The budget is broken down by bridge and illustrates the 10-percent savings advantage of bridge bundling on construction and construction engineering costs, respectively.

Contingency

Consistent with all Federal transportation grant funding MaineDOT applies for, the Department has budgeted a 15 percent contingency amount to cover unanticipated cost increases. If any cost overruns develop above the contingency amount, MaineDOT will fund that increase with 80 percent Formula Funds and 20 percent match funds. The Department carefully monitors national and global inflation factors and is aware of the potential for labor and materials cost increases with infrastructure projects.

Inflation Adjustment

A three percent annual inflation adjustment is factored into the CON and CE portion of the budget.

Previously-Incurred Costs

Previously incurred expenses as of March 2024 are \$1,188,421 and cover initial PE and ROW review as well continued funding for the design-build package prior to grant obligation. They are included in the *Grand Total Budget* but not in the *Project Budget*.

Maintenance Commitment

MaineDOT is committed to maintaining the new bridges, utilizing the same team of maintenance crews that cover all area bridges. Maintenance funding will be sourced from state funds.

Maintenance costs projected for the years preceding project completion were included in the first year of the analysis period to encompass the entirety of expected maintenance costs in the project area. The previous three years of maintenance costs for all bridges totaled \$62,582.37. This cost includes maintenance, annual cleaning, and a bi-annual NBI bridge inspection. This figure does not include emergency repairs resulting from excess-height vehicles striking the bridges. As the bridges continue to age, maintenance tasks will shift from minor work to more frequent and expensive work, including emergency structural deck repair. Funding for such work comes from state sources; Federal dollars are utilized for bridge inspection activity.

Discretionary Funding Need

MaineDOT is unable to fund the Project without Federal grant funding assistance. The Department works diligently to improve roads and bridges, but discretionary funding is a critical component of its comprehensive plan. According to the American Road and Transportation Builder's Association (ARTBA), which analyzed and ranked 2023 Federal Highway Administration (FHWA) National Bridge Inventory (NBI) data, Maine ranks fifth nationally for the number of structurally deficient bridges as a percentage of the state's bridge inventory.⁴ The ARTBA data concluded that of the state's 2,521 bridges, 372, or 14.8 percent, are currently classified as structurally deficient. This is up from 314 bridges in 2019. The state has identified required repair or replacement of 392 bridges compared to 335 bridges needing work in 2019.

The population of Mainers age 65 and older is expected to increase 36 percent between 2020 and 2030 as baby boomers age and older individuals move to the state following retirement.⁵ As older individuals begin to drive less or reach an age where driving is no longer practical, the

⁴ <https://artbridgereport.org/state/ranking>

⁵ <https://www.maine.gov/dafs/economist/sites/maine.gov.dafs/economist/files/inline-files/Maine%20Population%20Outlook%20to%202026.pdf>, page 2

opportunity to grow gas tax receipts will continue to challenge state lawmakers. More fuel-efficient vehicles and EVs supported by the state’s impressive expansion of electric vehicle infrastructure also reduces tax receipts available to fund road and bridge improvements. Under Infrastructure Investment and Jobs Act (IIJA) formula funding, Maine can expect to receive \$1.3 billion for federal-aid highway apportioned programs as well as \$225 million for bridge replacement and repairs over five years.⁶ While a needed increase in Federal funding, this funding is unable to cover the state’s growing bridge needs.

However, MaineDOT Commissioner Bruce Van Note sees cautious optimism ahead, stating: “...we soon may be able to transition from ‘MacGyver’ mode—which is MaineDOT’s general approach, born of fiscal necessity, of doing the best we can with what we have—toward a more proactive approach.” The IIJA provides formula funding “...that MaineDOT can rely on to build the basic elements of its Work Plan. The increase in formula funding—although significant (28 percent)—will be largely offset by construction cost inflation fueled by tight labor and material markets.”

Discretionary funding will help MaineDOT insulate the state from this effect and improve bridge conditions throughout the state.

Bridge Bundling

MaineDOT will be delivering these projects using an inclusive Design-Build approach. Delivery will be based on the principles of the 2019 Bridge Bundling Guidebook, emphasizing construction efficiencies, economies of scale and time savings. Phasing will enable effective use of local construction contractors and minimize multiple traffic disruptions. According to EDC-5, bundling can be expected to result in approximately ten percent savings in construction cost and up to 50 percent efficiency in preliminary design efforts. Bundling the bridges in this Project provides a cost savings of approximately \$9,388,816.

IV. MERIT CRITERIA

State of Good Repair

MaineDOT is committed to maintaining the new bridges, utilizing the same team of maintenance crews that cover other area bridges. Maintenance funding will be sourced from state funds. MaineDOT will ensure the new bridges are maintained to all Federal and state standards. The Department will perform all required bridge inspections and immediately correct any issues discovered. ARTBA ranks Maine the fifth worst state in the nation for structurally deficient bridges. According to the FHWA’s report, *Bridge Condition by Highway System 2023*, of the state’s 531 bridges on the National Highway System (NHS), 371 are rated *Fair* and 47 have a *Poor* rating. For the surface area of NHS bridges, measured in square meters, the state has 567,935 total with 389,345 square meters in *Fair* condition and 38,017 rated *Poor*.⁷

⁶ <https://www.whitehouse.gov/wp-content/uploads/2023/10/Maine-Fact-Sheet.pdf>

⁷ <https://www.fhwa.dot.gov/bridge/nbi/no10/condition23.cfm>

The Department struggles to keep pace with the continually deteriorating infrastructure as the bridges approach their end of life simultaneously. The Department aims, but struggles, to proactively rebuild bridges and bring the state's bridge system to a state of good repair. Aside from interstate bridges, there are 382 other bridges in Maine that will require reconstruction in the next 10 years. The total reconstruction cost for these bridges is \$1.15 billion, not including engineering or right-of-way expenses. There are 98 interstate bridges that carry I-95 over other roads in *Poor* condition, *Fair* condition and close to rating *Poor*, those with an insufficient vertical clearance, or a combination thereof. The cost to reconstruct those is \$1.2 billion. In addition to those, there are 56 bridges passing over the interstate with a minimum vertical clearance of less than 16 feet.

MaineDOT is taking a targeted approach to prevent bridges currently rated *Fair* from degrading to *Poor*, and BIP funding is critical to prevent further conditional decline. The Department carefully selected Project bridges following a detailed review of the state's *Fair* and *Poor* bridges and ADT associated with each bridge. Bridges over I-95 in southern and central Maine are the current focus for improvements. That portion of I-95 handles up to 66 percent more ADT than the interstate 100 miles further north. MaineDOT also carefully considered the quick timeframe with which construction can commence and be completed.

Bridge inspections, and analysis of how poorly they have scored, conclude the overpasses are expected to decline to *Poor* condition within the next three years. If the bridges are not replaced, the overpasses will deteriorate to the point they will threaten transportation efficiency statewide and significantly disrupt the economy. The deterioration could result in a weight restriction placed on them in the next few years, prohibiting trucks from crossing the bridges.

MaineDOT maintains strict adherence to Federal safety regulations when replacing or repairing transportation infrastructure and has been forced to make periodic short-term repairs to the bridges. The Trafton Road overpass received deck rehabilitation work in 1993, substructure repair in 2016, and superstructure repair in 1998 and 2016.

Safety and Mobility

Safety is the Department's primary consideration as it plans how to best remedy infrastructure challenges posed by outdated and inefficient bridges. The bridges have a



Bridge concerns include evidence that trucks have struck the bridges multiple times.



The two photos show concrete spalling and cracking, including a large section of concrete deteriorating from a bridge shoulder.

history of being struck by excess-height trucks periodically due to their outdated vertical clearances. MaineDOT is made aware of only a few of the incidents while many are not reported, only to be discovered later during routine inspections. This is an important safety issue the Project will remedy. MaineDOT assessed other safety and mobility challenges posed by the bridges' structural deficiencies and designed replacement bridges that will safely remedy those deficiencies and ensure new bridges meet or exceed current geometric design standards and safety needs:

1. Vertical clearances of current bridges range from 14 to 15 feet, below Federal and MaineDOT standards. **New bridges will include a standard, and safer, 16-foot clearance.**
2. The bridge rail on these structures was retrofitted from the original 2-bar aluminum bridge rail on concrete parapet to bridge mounted beam guardrail. This rail is only 32" in height and does not meet Manual for Assessing Safety Hardware (MASH) requirements. **New guardrails will consist of 3-bar steel bridge rail, a MaineDOT standard, meeting all MASH requirements and providing a 42-inch height, meeting OSHA guidelines.**
3. Existing bridges are either 24'-0" (11'-0" lanes and 1'-0" shoulders each side) or 26'-0" curb-to-curb (11'-0" lanes and 2'-0" shoulders each side). This does not meet current MaineDOT standards for corridor priority three, four, and five roads.⁸ **Project bridges will be designed to encompass a minimum of 28'-0" curb-to-curb width. Dinsmore Road, Drummond Road, and Town Farm Road bridges will have a curb-to-curb width of 30'-0" (11'-0" lanes and 4'-0" shoulders each side), and Lyons Road and Trafton Road will have a curb-to-curb width of 32'-0" (11'-0" lanes and 5'-0" shoulders each side), all of which better match the bridge approaches.**

Crash Data

There have been no fatalities or serious injuries resulting from crashes at the bridges, due to the rural nature of the region and low speed limit. Over the life of the Project, safety benefits translate to \$121,476, resulting from wider shoulder widths and higher clearance of the bridges over I-95.

MaineDOT carefully records and analyzes crash statistics down to specific street level, allowing the Department to incorporate statistical data into Project design to improve safety. The data are available to the public.⁹ Despite budgetary challenges, the Department's safety focus and thoughtful spending of Federal funding has led to a significant safety improvement consistent with USDOT goals. According to the National Highway Traffic Safety Administration, Maine led the nation with the greatest percentage reduction in vehicle fatalities between the first nine months of 2022 and 2023—25.2 percent—and significantly better than the national average of 4.5 percent.¹⁰ Yet in the Project area, according to the Equitable Transportation Community (ETC) Explorer Tool residents are burdened by Transportation Safety.¹¹

Bridge replacement will improve safety and decrease the response times for first responders in the rural region. Total Project annual crash cost savings will be \$4,749, resulting from a decrease

⁸ <https://www.maine.gov/mdot/about/assets/hwy/>

⁹ <https://mdotapps.maine.gov/MaineCrashPublic/>

¹⁰ <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/813530>

¹¹ ETC Explorer: Tract 170 (79th percentile) and Tract 242.02 (76th percentile)

in the possibility of crashes that result in injuries and/or property damage.

Protecting motorized and non-motorized travelers from safety risks

MaineDOT has designed Project bridges, as all bridge replacements, for a 100-year serviceable life and consistent with FHWA publication *The Standard Specifications for the Construction of Roads and Bridges on Federal Highway Projects*. The new bridges will include a FHWA- and MaineDOT-mandated 16-foot vertical clearance over the interstate highway. The overpasses will have MASH-compliant 42-inch guardrails and a minimum four-foot-wide outside shoulder. Along the interstate, if new bridge piers are close to travel lanes, crash barriers or guardrails will be installed to protect motorists and the integrity of the structure.

Prior to construction commencement, MaineDOT will install construction safety signage and barriers and reduce speed limits in construction zones to protect workers, consistent with the American Traffic Safety Services Association’s (ATSSA) *Work Zone Positive Protection Toolbox*.¹² The Department will also ensure first responders can quickly and safely navigate construction zones to maintain response times and access within this rural region of Maine.

Economic Competitiveness and Opportunity

The bridges and interstate provide access to employment, education, healthcare, retail, and other everyday needs for residents. They are also important corridors for freight and serve as an important link in the region’s supply chain. The bridges host ADT ranging from 306 to 1,709 vehicles.

BRIDGE INFORMATION		
Location (South to North)	NBI Structure Number	Average Daily Traffic
I-95 at Dinsmore Road Bridge	5782	586
I-95 at Lyons Road Bridges	1463; 5783	Both: 1,709
I-95 at Drummond Road Bridge	5784	464
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Freight

Interstate 95 is on the National Highway System and National Highway Freight Network.¹³ It is also a *MaineDOT Priority 1 Road*.¹⁴ More than 1,800 miles comprise the state’s *Priority 1 Roads*, representing only eight percent of all Maine roads, but they carry 40 percent of all vehicle miles traveled in the Pine Tree State. Interstate 95 ADT vehicle counts in the Project area include 17,370 vehicles northbound and 16,390 southbound. Of that, 10 percent (3,376) comprises truck traffic. Modern trucks are designed to handle heavier and larger loads than ever before. Therefore, the new bridges have been designed to encompass all federal and state design truck loadings. As trucks shift to heavier payload capacity, that increase often reduces the overall number of trucks required to transport the same volume of goods. However, the growth of Maine’s economy will surely lead to an increase in the number of trucks on regional roads no matter the future payload capacity. The U.S. Bureau of Economic Analysis released data

¹² https://workzonesafety-media.s3.amazonaws.com/workzonesafety/files/documents/training/fhwa_wz_grant/atssa_wz_positive_guidance_toolbox.pdf
¹³ https://ops.fhwa.dot.gov/freight/infrastructure/nfn/maps/nhfn_map.htm
¹⁴ <https://www.maine.gov/mdot/about/assets/glossary/>

showing Maine has experienced stronger GDP growth in recent years than any other state in New England – 4.9 percent.¹⁵

Without a navigable river system or rail system that reaches all parts of the state, trucks are the only way to transport freight to many urban and rural communities, especially those located in the state’s vast northern region where forest products (such as lumber and paper) and agriculture exports (such as potatoes and dairy products) are prevalent. The Maine Motor Transport Association refers to I-95 as the “lifeline of the state”—the route is Maine’s primary trucking connection to the rest of the nation and much of Canada, traditionally the U.S.’s largest trading partner. The American Transportation Research Institute finds trucking in Maine accounts for more than 34,000 industry jobs and the only freight connection for 84.4 percent of Maine communities.¹⁶

Access to Employment

The bridges provide a critical path for rural residents to connect to employment opportunities, prevalent in the region’s urban areas. The Project boundary is located eight miles from Augusta, the state’s capital (population 19,000) and four miles from Waterville, the state’s 15th largest city (population 16,000) and employment opportunities located in these urban areas. Sidney is a small town located in the center of the Project territory. Most Sidney residents (81 percent) drive to work in a personal vehicle and average a 21-minute commute, which would increase should the overpasses be unavailable to facilitate their access to the interstate and local roads.¹⁷

Access to Education

Three colleges are located within a few miles of the bridges: the University of Maine at Augusta (enrollment 5,600), as well as Colby College (enrollment 1,800) and Thomas College (enrollment 2,000), both in Waterville. A middle school is located on Middle Road, the rural connector road that parallels the interstate between the Dinsmore Road and Lyons Road overpasses. The overpasses benefit students and faculty by efficiently connecting those living in rural regions to the schools. If all bridges were closed at the same time, students, faculty, and staff would face a reroute trip of up to 18 miles and 27 minutes.

Mobility During Construction

MaineDOT has designed the construction schedule and activities to ensure the greatest community mobility possible while construction is underway. To be as efficient with the bridge bundle construction schedule, multiple bridges will be under construction at the same time; however, when one bridge is being replaced, the adjacent bridges north and south of that bridge will remain open to motorists and serve as the detour routes. All I-95 on- and off-ramps will remain open during construction.

Considerations to Support Good-Paying Jobs and Strong Labor Standards

The Project will create good-paying jobs and ensures strong labor standards through the promotion of equal opportunity that removes barriers to hire and preventing harassment on the work site through MaineDOT’s Equal Employment Opportunity (EEO) Policy and Affirmative Action. As an employer, MaineDOT endeavors to be a model employer—a workplace where

¹⁵ <https://www.maine.gov/governor/mills/news/new-federal-data-show-maine-leads-new-england-economic-growth-2024-01-04>, January 2024

¹⁶ Source: ATRI, Maine Trucking Fast Facts, 2024

¹⁷ Sidney, Maine Census Profile: https://data.census.gov/profile/Sidney_town,_Kennebec_County,_Maine?g=060XX00US2301168385

people want to come to work and make the mission of the Department a reality. As a recipient of federal funding, it is incumbent on MaineDOT to ensure that contracts let through our agency adhere to the standards prescribed by Federal and state law.

The foundation for MaineDOT's EEO Policy and Affirmative Action is derived from State and Federal laws and regulations, as well as a moral and professional commitment. Legal mandates include: Title VII of the Civil Rights Act of 1964 as amended by the Equal Employment Opportunity Act of 1972; the Rehabilitation Act of 1973; the Age Discrimination in Employment Act of 1967; the Equal Pay Act; the Maine Human Rights Act, 5MRSA, CH.337; the State Personnel Law, 5MRSA, CH 51, Section 553 (Non-Discrimination) and 5MRSA, CH 65 (Code of Fair Practices and Affirmative Action); and the Americans with Disabilities Act (ADA) of 1990.

Additionally, through MaineDOT's On-The-Job Training (OJT) Program meaningful training opportunities for Women, Minorities, & Disadvantaged individuals on federal-aid highway and bridge projects exists to develop full journeymen.

MaineDOT's OJT program requires contractors make every effort to enroll minority and women trainees (i.e., by conducting systematic and direct recruitment through public and private sources likely to yield women, minorities, and disadvantaged trainees) to the extent that such persons are available within a reasonable area of recruitment.

Climate Change, Sustainability, Resiliency, and the Environment

Reduction of air pollution or greenhouse gases

During Project planning, design, and construction of all infrastructure projects, MaineDOT carefully considers implementing solutions to help mitigate the effects of today's environmental challenges. Maine has an extensive climate action plan, *Maine Won't Wait*, which illustrates the Pine Tree State's statutory goal of achieving carbon neutrality by 2045, reducing emissions 45 percent by 2030 and at least 80 percent by 2050, and transitioning to 80 percent renewable energy by 2030, with a goal of 100 percent by 2050.¹⁸

As detailed in the BCA, reconstructing the bridges will eliminate the threat of additional travel mileage and associated harmful emissions resulting from a potential bridge closure and long-term, reroute. Total Project emission savings, both CO₂ and non-CO₂ combined, are \$22,138,783. These savings, calculated in the BCA, result from eliminating long detours should the bridges eventually fail and close permanently.

Improved Resiliency of At-Risk Infrastructure

MaineDOT incorporates climate resiliency into the planning, design, and construction of all infrastructure projects. As a far northern state, Maine receives the nation's second-highest annual snowfall amount—an average of 92 inches.¹⁹ The new bridges will be constructed to withstand harsh weather conditions that have become more prevalent as a result of the changing climate. Corrosion resistant reinforcing will be utilized within the structures. Structural steel beams will be analyzed for the potential use of protective coating systems that can increase the life of the

¹⁸ https://climatecouncil.maine.gov/future/sites/maine.gov.future/files/inline-files/MaineWontWait_December2020.pdf

¹⁹ <https://wisevoter.com/state-rankings/snowiest-states/>

steel. Drains will be able to intake water from extreme downpours and excessive snow melt. These measures will also help protect the bridges from deterioration that road salt, used to melt snow and ice, can create. The bridges are not located in an area prone to flooding.

Improved wildlife connectivity, especially for aquatic species

The bridges do not traverse an area with abundant wildlife habitats or aquatic species.

Addressing disproportionate negative environmental impacts on disadvantaged communities

The Project is located in a Census-designated rural area but not in a Historically Disadvantaged Community or Area of Persistent Poverty. According to ETC Explorer, residents in the Project area do experience transportation, social, and health vulnerabilities and burdens. Transportation vulnerabilities include low Transportation Safety and Transportation Cost Burdens.²⁰ Sidney, like much of Maine, is home to an aging population.²¹ The ETC Explorer concludes ownership of manufactured and mobile homes are also prevalent in the area. Additional social vulnerabilities include high house tenure and endemic inequality rates as well as low rates of insurance and internet access.²² Health burdens include a high prevalence of asthma, cancer, high blood pressure, diabetes, and mental health challenges.²³

Rural residents are frequently disconnected from the convenience of nearby service centers. Access to food, retail, education, health care, and other important services is challenging and often obstructed by insufficient transportation infrastructure. Rural residents rely on the bridges to access regional service centers to meet their everyday needs. Without new bridges, residents will continue to face the threat of inconvenient disconnections from critical services.

Equity and Quality of Life

As MaineDOT plans, develops, and implements transportation investments, the Department is careful to ensure a project has the ability to improve the lives of residents and foster better and more meaningful connections to everyday needs.

Communicating the plans of a project to affected communities is important to MaineDOT. The Department will use its virtual Public Involvement Management Application (PIMA) for virtual and/or hybrid public engagement during program development and implementation. MaineDOT was an early adopter of virtual public involvement during COVID-19 when in-person meetings were restricted for public health reasons. Beyond the pandemic, MaineDOT has opted to continue using PIMA as its primary vehicle to distribute information as well as collect public comment. The number of people accessing the project-specific websites and the number of comments received are significantly higher using PIMA, because people are able to access the virtual platform regardless of their geographic location. Additionally, this engagement has a high level of customer satisfaction. To engage with project-area residents, MaineDOT will utilize PIMA together with direct conversations with local populations will provide the opportunity to proactively minimize impacts to potentially affected community-based organizations, businesses, and residents during project planning. PIMA is particularly effective in engagement of rural populations, for which travel to traditional in-person meetings can pose a barrier. PIMA is used

²⁰ Tract 170: Transportation Safety, 79th percentile; Cost Burden, 84th percentile. Tract 242.02: Transportation Safety, 76th percentile

²¹ Tract 170: 65 or older, 65th percentile

²² Tract 170: 71st percentile, 79th percentile, 82nd percentile, 90th percentile, respectively

²³ Tracts 170 and 242.02. Health Vulnerabilities 76th percentile and 63rd percentile, respectively

not only to collect comments on projects, but also to reflect how such input is taken into consideration in decision-making and keep the public informed during construction.²⁴

The link to the virtual public presentation for the Trafton Road Overpass segment of the Project, which took place in May 2023, is available at: <https://storymaps.arcgis.com/stories/7354244e46464795842ee1fbf7030907>. The public feedback from this meeting was in support of the project and adding width to a proposed structure. No major concerns were raised through this online process.

How planning and engagement in design will mitigate/prevent physical and economic displacement

MaineDOT will locate the new overpasses on the footprint of the current ones, eliminating the need to displace nearby residents or businesses. The Department’s early Project planning included the decision that all the bridges would be replaced, instead of eliminating one or two, because connectivity is a priority. This will prevent burdensome permanent reroutes for rural residents which would further challenge their connections to everyday needs.

Incorporation of nonvehicular and/or public transportation into project and quantifiable benefits to quality of life

Given the Project’s rural location, nonvehicular and public transportation are not prevalent in the region.

Project connection to housing and transportation

The bridges are critical connections between Augusta, Waterville, and a vast rural region north and west of I-95. They provide connectivity to everyday needs for residents who desire to live in rural areas or, in many cases, can no longer afford the high housing costs of the state’s coastal region. Maine’s real estate prices in cities near the coast have risen dramatically the past several years, forcing many who lived there to transplant to rural areas. But even rural communities are now experiencing a sharp increase in prices. A realtor in Greenville, Maine, told Maine Public Radio that a decade ago in rural Maine, “You could have put up a ‘for free’ sign and nobody would have taken it in that rural part of Maine...But that is not the case today. It’s amazing to watch.”²⁵

How the project provides congestion reduction and improved reliability with realistic estimates of improved travel time and traffic throughput

The Project reduces the risk of increased travel time that would result from a temporary bridge outage or permanent bridge closure. Considering detour by bridge, closures would add between 1.9 miles and 5.7 miles to a trip and between 2.4 minutes and 8.6 minutes per trip.

NBI Detour Information by Bridge				
Bridge	NBI Structure Number	ADT	Detour Mileage	Detour Minutes
I-95 at Lyons Road Bridges	1463; 5783	1,709	5.7	8.6
I-95 at Drummond Road Bridge	5784	464	1.9	2.4

²⁴ <https://www.maine.gov/mdot/vpi/>

²⁵ *Maine Public Radio*, 2021, <https://www.mainepublic.org/business-and-economy/2021-07-05/buyers-priced-out-of-maines-hot-housing-market-are-grabbing-rural-land>

I-95 at Dinsmore Road Bridge	5782	586	5.0	7.5
I-95 at Trafton Road Bridge	5812	472	1.9	2.9
I-95 at Town Farm Road Bridge	5785	306	1.9	2.9

The Lyons Road and Trafton Road overpasses are adjacent to interstate on- and off-ramps. Those ramps will remain open during construction to minimize impacts to motorists. In the unlikely event they require periodic closure, MaineDOT will communicate with motorists well in advance of the ramp closures. The Department will ensure ingress and egress remains for five businesses located adjacent to the interstate ramps. The Project will not result in additional travel lanes on the bridges.

Innovation

Innovative Project Design or Construction Techniques

The Project will utilize bridge bundling under the guidelines of FHWA’s *Bridge Bundling Guidebook*.²⁶ Given the similar design and nature of the bridges, bridge bundling will advance the Project efficiently by saving time, design and construction costs, and creating opportunities for small and disadvantaged businesses.²⁷ This will allow construction to commence quickly and with very little risk.

MaineDOT will utilize an innovative design-build Project delivery plan, allowing the Department to contract with a single point of responsibility. The designer and contractor will work together as a team, providing unified Project recommendations that fit schedule and budget. Any concerns or changes will be addressed by the entire team with a focus on collaborative problem solving.

MaineDOT estimates bridge bundling, and employing an owner-engineer to assist in generating a request for proposal (RFP) and the selection of a design-build team, will save 10 percent of Project costs, consistent with *Every Day Counts: Innovation for a Nation on the Move*, EDC-5 Final Report, April 2021.²⁸

To reduce the impact to drivers and avoid lengthy and cumbersome reroutes, MaineDOT will reconstruct multiple bridges at once, but not all of them simultaneously. The Department will ensure each adjacent bridge north and south of the bridge currently under construction remains open and accessible. If all bridges were closed at the same time, drivers would face a reroute trip of up to 18 miles and 27 minutes.

Innovative Technology

MaineDOT will use corrosion resistant reinforcing to provide additional life for the concrete components, including the bridge deck and substructure. Structural steel beams will be analyzed for the use of protective coating systems that can increase the life of the steel, such as metalizing and galvanizing. MaineDOT will utilize Accelerated Bridge Construction (ABC) methods such as prefabricated bridge elements, where possible, to speed construction and reduce negative impacts to traffic. By utilizing these methods, the Department is historically able to complete

²⁶ *Bridge Bundling Guidebook*, https://www.fhwa.dot.gov/ipd/pdfs/alternative_project_delivery/bridge_bundling_guidebook_070219.pdf

²⁷ *Bridge Bundling Guidebook*, page 9-10

²⁸ *Every Day Counts: Innovation for a Nation on the Move*, EDC-5 Final Report, April 2021, page 10, https://www.fhwa.dot.gov/innovation/everydaycounts/reports/edc5_finalreport.pdf?utm_source=rotator

more than 90 percent of projects within 30 days of agreed-upon schedules.

Innovative Financing

The Project includes innovative bridge bundling, leading to a 10-percent Project cost reduction. MaineDOT will follow the guidelines of the FHWA Bridge Bundling Guidebook.

Innovative Planning and Environmental Review Process Improvements

MaineDOT is deploying innovation to administer the National Environmental Policy Act (NEPA) process and permitting for the Project through Programmatic Agreements already in place, which will ensure timely and consistent reviews and accelerate Project delivery. MaineDOT, the Federal government, and other state departments have agreements to thoroughly and expeditiously review a Project’s environmental impacts.

V. BENEFIT-COST ANALYSIS

On a discounted basis, the BCA estimates more than \$214 million in benefits (\$288 million in total benefits) over the 30-year analysis period resulting from the investment. The Project yields a very strong benefit-cost ratio of **3.88:1**. Benefits accrue due to the avoidance of future bridge strikes to the current low bridge and the resultant costs of detours while repairs are made to the damaged bridge. Per NBI data, expected detours range from 1.9 to 5.7 miles, and will take between 2.4 to 8.6 minutes. Over the 30-year period, the analysis assumes that the bridges will be ‘posted’ twice–once to eventually prohibit common-weight trucks from use and later barring all trucks from use. There are operating, time, and safety/crash savings as well as emissions savings associated with the detours and the incremental time and mileage they cause, accounting for 80 percent of total Project benefits. The net 30-year maintenance costs in a build vs. no-build scenario are included (and detailed in the BCA file), as is the significant residual value from a 30-year analysis period and a new bridge built with a 100-year life, accounting for 13 percent and 7 percent of Project benefits respectively. There are some unquantified benefits as the Project will enhance resilience to weather, seismic, or other extreme events, and will reduce the probability of unreported crashes involving trucks striking the bridges due to the low clearance. The BCA estimates that construction will start in 2026 and two bridges will be reconstructed simultaneously to minimize the disturbance to the community.

Category	Total	Percent of Total Benefits
Safety	\$ 121,476	0%
Travel Time	\$ 124,029,303	43%
VOC	\$ 85,286,877	30%
Resilience	\$ -	0%
Health and Amenity	\$ -	0%
CO2 Emissions	\$ 20,148,216	7%
Non-CO2 Emissions	\$ 1,990,566	1%
Other Environmental	\$ 69,030	0%
Maintenance	\$ 36,235,333	13%
Residual Value	\$ 20,803,572	7%
Other Benefits	\$ -	0%
Total Benefits	\$ 288,684,374	100%
Total Discounted Costs	\$ 74,483,342	N/A
BCR	3.88	N/A
Net Present Value (NPV)	\$ 214,201,032	N/A

MaineDOT estimates that bridge bundling and employing an owner-engineer to assist in generation of an RFP and selection of a design-build team, combined, will save 10 percent in Project costs, consistent with *Every Day Counts: Innovation for a Nation on the Move*, EDC-5 Final Report, April 2021.

VI. PROJECT READINESS AND ENVIRONMENTAL RISK

The Project is at the 15 percent design level and will advance rapidly as it will be delivered using a design-build approach. The Project scope is similar to numerous overpasses above Maine's interstate highway system. MaineDOT is very experienced at providing a thorough Project scope and has been very successful advancing projects quickly from concept to completion by contracting using the design-build process and utilizing programmatic agreements for environmental-related measures. MaineDOT is speeding up design and construction by employing an owner-engineer to assist in generating an (RFP). MaineDOT and its owner-engineer will seek designer/contractor teams interested in working alongside MaineDOT based on a base-level scope for the project. Interested designer/contractor teams will be prequalified by MaineDOT, who will then introduce an (RFP) to the accepted teams. This process aids in rapidly moving through design stage and allows the contractor to begin work quickly.

The RFP will include site surveys, baseline geotechnical investigations, environmental assessments, and minimum bridge geometric requirements, clearances, and safety standards that will allow teams to bid on Project work rapidly and with confidence. When a design-build firm is selected, final design can immediately begin, and with direct input from the contractor throughout design, can quickly progress to construction.

This innovative process minimizes delay and risk because the contractor is actively participating in Project design. Any unforeseen construction challenges can be quickly and efficiently managed so the Project can remain on schedule and within budget. MaineDOT will have an owner-engineer employed to assist in generating an RFP in the spring of 2024. No land acquisition is required as part of the Project, accelerating the scope of project readiness.

Technical Feasibility

MaineDOT has the technical experience to complete the Project, which is similar to dozens of other bridge projects the Department has designed, built, and maintained statewide. The bridges are typical of numerous others MaineDOT is responsible for along I-95 and other roadways. MaineDOT is the recipient of previous Federal infrastructure funding and will comply with all Federal regulations with regards to all aspects of the Project. This includes (EEO) Policy and Affirmative Action, all NEPA requirements, all Civil Rights policies, the ADA, and all other regulations.

Project Schedule

The Project schedule incorporates sufficient time for MaineDOT and FHWA to work directly with respective agencies and the public to address any potential issues that arise during ongoing NEPA and Permitting to maintain the delivery schedule. No property or right-of-way acquisition is anticipated. All other pre-construction activities will be complete in advance of the statutory deadline requiring BIP funds to be obligated. The Project can begin construction soon after obligation of funds. Work is not complex and, once commenced, construction will move quickly and funds will be managed expeditiously. Any unexpected delays will be quickly resolved.

Task Name	Start	Finish
Preliminary Geotechnical work	5/1/24	5/1/25
Request for Statement of Interest (RFSOI) Issued	11/13/24	11/13/24
MaineDOT issues Final Request for Proposal (RFP)	8/8/25	8/8/25
MaineDOT Awards Contract/ Design- Build Team selected	8/29/25	8/29/25
Final Design	8/29/25	11/21/25
Right-of-Way Complete (if needed)	11/11/25	11/11/25
NEPA complete	11/14/25	11/14/25
Design Complete	12/31/25	12/31/25
Construction	1/1/26	6/30/31
Construction Substantially Complete: Dinsmore Rd.	TBD*	TBD*
Construction Substantially Complete: Lyons Rd.	TBD*	TBD*
Construction Substantially Complete: Drummond Rd.	TBD*	TBD*
Construction Substantially Complete: Town Farm Rd.	TBD*	TBD*
Construction Substantially Complete: Trafton Rd.	TBD*	TBD*
End Construction	6/30/31	6/30/31

*Order which the bridges will be constructed in will be up to the Contractor as part of the Design-Build process. Approximate durations for each Structure is provided, to take place between construction begin and end dates. It is likely that multiple structures will be under construction at the same time depending on Contractor scheduling.

Required Approvals

- Environmental Assessments – MaineDOT has initiated communication with environmental agencies and interested parties. Preliminary baseline data collection to identify natural and cultural resources potentially affected by the Project is complete. This information will be refined during preliminary design and will be used to avoid and minimize impact while meeting the purpose and need at each bridge location.
- Topographic Surveys – Completed and available. No issues.
- Metes and Bounds Surveys – Completed and available. No issues.
- Hazardous Materials Assessment – Review of Maine Department of Environmental Protection files and databases and field review are complete. Based on available data, there are no known areas of soil or water contamination within the Project area.
- Hydrologic Analysis – N/A. No waterways nearby.

Design Criteria

MaineDOT designed the bridges following all FHWA and state requirements and to be constructed using concrete and steel that will last 100 years and to ensure risk-prone low clearance issues are remedied. The bridges will be located in the path of the existing right-of-way.

Cost Estimate and Contingency Levels

The Project cost estimate provided in the application is accurate. The Department traditionally reviews the previous three years of component and labor costs to aid in estimating current costs, which takes into account inflation levels. The Department has identified and included contingency costs by examining potential Project risks, such as performing work above an active interstate. A contingency of 15 percent is included in the Project cost total.

Statement of Work

If selected for funding, MaineDOT looks forward to signing a comprehensive agreement with USDOT that includes an updated and detailed Scope of Work based on any budget changes.

Bridge replacement activities will consist of the following specific activities, as outlined below:

Pre-Construction Activities:

Preliminary Engineering – preliminary and final design of the bridge and roadway, including public notice, and structural & geotechnical evaluations for the structure, completed by MaineDOT and a designer/contractor team through the design-build process.

Utility coordination – coordinating with the private utility companies within the project limits about potential relocations and protection during construction

NEPA coordination – review project to avoid/minimize impacts to the project area

Construction and Demolition Activities:

Construction Engineering – MaineDOT oversight of construction activities to include traffic control, site safety, conformance to plans & design standards, inspection & quality control, and regulatory compliance.

Mobilization – Contractor procurement and distribution of project specific materials, equipment, and labor force

Bridge Demolition – remove the existing bridge in its entirety.

Bridge Construction – build new bridge over I-95.

Roadway Reconstruction – Drainage, grading, paving, striping, and signage installation

Environmental Permits and Reviews

MaineDOT and FHWA Maine Division have a Programmatic Agreement for processing actions classified as Categorical Exclusions (CEs). The agreement authorizes MaineDOT to determine on behalf of FHWA whether a project qualifies for a CE specifically listed in 23 CFR 771.117. In addition, it authorizes MaineDOT to approve a CE on behalf of FHWA as “Programmatic CE” pursuant to the Agreement. No separate review or approval of the CE by FHWA is required. Project documentation is available to FHWA upon request. The agreement is posted on the MaineDOT website at:

https://www.maine.gov/mdot/env/NEPA/_assets/docs/2022/Maine%20Programmatic%20NEPA%20CE%20Agreement.Executed.020821.pdf. Based on baseline data collection and preliminary plans, the Project is expected to have minimal to no impacts on natural or cultural resources or the environment.

- 1) **National Environmental Policy Act (NEPA):** While the Project components have cumulative benefits if completed together, the bridges have independent utility and will be classified separately as Categorical Exclusions in accordance with 23 CFR 771.117(c) and (d). FHWA Maine Division is the lead agency for NEPA. Categorical Exclusions will be processed in accordance with the *Programmatic Agreement between the Federal Highway Administration, Maine Division and the Maine Department of Transportation*

Regarding the Processing of Actions Classified as Categorical Exclusions for Federal-Aid Highway Projects. Public involvement will be completed in accordance with the MaineDOT Public Involvement Plans. The anticipated date for NEPA completion is November 2025 and is listed in the Project Schedule.

- 2) **Section 106 of the National Historic Preservation Act:** MaineDOT and FHWA have initiated the Section 106 process. The bridges are not National-Register Eligible and they are not located within National-Register-Eligible Historic Districts. The MaineDOT Historic Coordinator has reviewed the components of the Project and made a preliminary determination that it meets the criteria for abbreviated review pursuant to the *Programmatic Agreement among Federal Highway Administration, Federal Transit Administration, the Advisory Council on Historic Preservation, the Maine State Historic Preservation Officer, and Maine Department of Transportation Regarding Implementation of the Federal Aid Highway and Federal Transit Programs in Maine*. This agreement acknowledges that work on the interstate or other controlled-access highways within existing interchanges, medians and routes within previously constructed slope limits has little or no potential to affect historic properties.
- 3) **Section 4(f) of the U.S. Department of Transportation Act:** The MaineDOT Cultural Coordinator has reviewed the projects to identify potential Section 4(f) resources. As noted previously, the bridges are not historic and are not located within historic districts; they are located entirely within existing MaineDOT right-of-way. Because preliminary Project information indicates that the Project limits do not extend beyond the existing state right-of-way, no Section 4(f) uses are anticipated.
- 4) **Endangered Species Act:** All bridges are located within the range of the Federally-threatened Northern Long-Eared Bat. MaineDOT will complete consultation with U.S. Fish and Wildlife Service and will incorporate avoidance and minimization measures into Project design. All bridges are located within the range of the Federally-listed Gulf of Maine Distinct Population Segment (DPS) of Atlantic Salmon (ATS) and within designated ATS Critical Habitat. The Project does not include work in or adjacent to waterbodies and is expected to have no effect to Atlantic Salmon or Critical Habitat.
- 5) **Essential Fish Habitat (EFH):** The Project is located within a watershed designated as Essential Fish Habitat for Atlantic Salmon. The Project does not include work in or adjacent to waterbodies and is expected to have no effect on Essential Fish Habitat.
- 6) **Section 404 Clean Water Act Permit (U.S. Army Corps of Engineers):** MaineDOT will avoid and minimize temporary and permanent wetland impacts to the extent practical. MaineDOT anticipates minimal wetland impacts or in-water work. If required, the activities will be eligible for Category 2 Permits under the Maine Programmatic General Permit.
- 7) **Natural Resources Protection Act (Maine Department of Environmental Protection):** Wetland and stream impacts are regulated by the Maine Natural Resources Protection Act. MaineDOT anticipates minimal wetland and stream impacts associated with the Project. If required, the activities will be exempt or eligible for Permit-By-Rule Chapter 305, Section 11, which is a streamlined permit process for state transportation facilities.
- 8) **Stormwater:** The Project will incorporate Best Management Practices for temporary and permanent management of soil erosion and sedimentation. The Project is not located in and will not encroach into designated flood zones.

Programmatic Agreements

MaineDOT recognizes that assuring sustainability of habitats, ecosystems and transportation infrastructure can be achieved in a mutually beneficial manner. MaineDOT endeavors to exercise reasonable stewardship over natural resources and transportation infrastructure through its commitment to addressing aquatic organisms, wildlife habitat and fish passage in cooperation with natural resource agencies, while considering all aspects of a proposed project. MaineDOT and various other state and Federal departments have executed agreements to expeditiously and thoroughly review environmental impacts. The Department will utilize the following agreements, where applicable, to streamline the environmental review and approval process:

- a) Programmatic Agreement between the Federal Highway Administration, Maine Division and the Maine Department of Transportation Regarding the Processing of Actions Classified as Categorical Exclusions for Federal-Aid Highway Projects;
- b) Programmatic Agreement among Federal Highway Administration, Federal Railroad Administration, the Advisory Council on Historic Preservation, the Maine State Historic Preservation Officer, and Maine Department of Transportation Regarding Implementation of the Federal Aid Highway and Federal Transit Programs in Maine;
- c) Cooperative Agreement between U.S. Department of the Interior Fish and Wildlife Service (USFWS), FHWA and the MaineDOT State Transportation Reviews by the USFWS in Maine;
- d) Maine Atlantic Salmon Programmatic Consultation finalized January 23, 2017;
- e) Programmatic Agreement for the State of Maine concerning identification of listed and proposed species and designation of non-Federal representative under the Federal Endangered Species Act between FHWA, Maine Division USACE, MaineDOT, USFWS, NOAA's National Marine Fisheries Service;
- g) Programmatic Agreement for the State of Maine between MaineDOT, FHWA Maine Division, USFWS Regarding Endangered Species Act Section 7 Consultation for Canada Lynx;
- h) Memorandum of Agreement for Stormwater Management between the MaineDOT, MTA and Maine Department of Environmental Protection; and
- i) Memorandum of Agreement between United States Army Corps of Engineers (USACE), New England District and MaineDOT for Expediting Permit Application Evaluations under Section 214 of the Water Resources Development Act of 2000, as amended, and Section 139(j) of Title 23, United States Code, Assistance to Affected State and Federal Agencies, July 2022.

Communication

During construction, MaineDOT will ensure points of contact are available for the public to communicate any questions or concerns. Maine DOT will create a Project website to list points of contact and provide construction activity updates.

Environmental Justice

MaineDOT utilizes Census data and related tools, such as the Climate and Economic Justice Screening Tool (CEJST), Equitable Transportation Community (ETC) Explorer, and the Environmental Justice Screening and Mapping Tool (EJScreen) for all Federally funded projects. Although the Project is not located in Census-identified Areas of Persistent Poverty or Historically Disadvantaged Communities, residents still face burdens and challenges like many

Rural communities. According to 2020 Census data, 27 percent of the population in the Project area Census tracts are at or below 200% of the federal poverty line.²⁹ Health burdens, such as high cancer and asthma prevalence rates, and transportation vulnerabilities, such as low transportation safety rates, further negatively impact residents in the Project area. The Project will not require residential or commercial displacements. It will improve existing roads and infrastructure and reduce safety risks for all transportation system users. It will improve the safety and quality of access to service centers. MaineDOT recently updated its Public Involvement Plans, which outline the Department’s efforts to ensure disadvantaged populations are provided meaningful opportunities for public involvement. The Plans are available at: <https://www.maine.gov/mdot/env/NEPA/public/index.shtml>.

State and Local Approvals

The Project is a MaineDOT priority and has received broad public support. It is included in the Department’s *Statewide Transportation Improvement Program (STIP) for 2023–2026* as well as the *Three-Year Work Plan 2024 Edition*. The Project is consistent with *Working to Move Maine: MaineDOT’s Long-Range Transportation Plan*.³⁰

Federal Transportation Requirements Affecting State and Local Planning

Public roads and bridges under the control of MaineDOT are not subject to local zoning controls pursuant to 30-A M.R.S.A. Section 4352.

Assessment of Project Risks and Mitigation Strategies

Project Risks	Mitigations
<ul style="list-style-type: none"> • Final recommended design could lead to cost increases if additional required work is identified • Procurement delays • Community voices concerns about movement through the project areas 	<ul style="list-style-type: none"> • The design-build process incorporates the contractor in the design of the project to provide guidance/feedback to appropriately address the project requirements. • Since the contractor will be involved in the project design, material acquisition can be coordinated earlier and schedules can be more easily adjusted to account for anticipated delays. • Administer close coordination with the town of Sidney, city of Waterville and other neighboring municipalities throughout design & construction.

VII. ADMINISTRATION PRIORITIES & DEPARTMENT STRATEGIC PLAN GOALS

The Project yields a number of positive outcomes consistent with BIP goals, including improving the safety, connectivity, and efficiency that rural connector roads provide residents. The Project also maintains the reliability of the National Highway System and National Highway Freight Network. The Project reduces the number of bridges in *Fair* condition that will fall into *Poor*

²⁹ ETC Explorer. Tract 170: 27.34%; Tract 242.02: 26.91%

³⁰ *Working to Move Maine: MaineDOT’s Long-Range Transportation Plan, 2023*, <https://uploads.mainedotpima.com/300823a7-ddcf-4ccc-9ca9-53d6425d1c4c.pdf>

condition within the next three years, as well as those currently rated *Poor*. It reduces the number of bridges that fail to meet current geometric design standards. It also accomplishes broader Federal government goals including using Federal funding effectively, restoring bridges to a state of good repair within their existing right-of-way, minimizing the need for residential and business relocations, reducing harmful emissions, increasing climate change resiliency, delivering equitable transportation options and access, ensuring the U.S. economy remains competitive, and improving employment opportunities.

Safety

The Project provides substantial safety benefits for motorists traveling on five different roads in Maine, as well as I-95. As noted in the Safety section of the *Merit Criteria*, the Project creates six new bridges constructed to modern Federal and state standards, as well as American Association of State Highway and Transportation Officials (AASHTO) bridge specification requirements. During construction, MaineDOT will ensure workers are protected and work zones remain safe, a critically important aspect of any MaineDOT project.³¹

Climate Change and Sustainability

Maine Won't Wait, the state's comprehensive climate action plan provides state agencies, including MaineDOT, with proven guidelines to consider when incorporating climate change and environmental justice measures into any project. MaineDOT is very experienced considering a project's potential impacts on the natural, economic, and social environments, as outlined in the *Bridge Bundling Guidebook*, including:

- Threatened and/or endangered species (and their habitats)
- Migratory birds
- USACE Section 408 authorizations
- Cultural resources (archeological or historic)
- Public parklands
- Floodplains and wetlands
- Noise levels, water quality, and air quality
- Human health and safety
- Social and economic impacts on communities

Reconstructing the bridges will eliminate the threat of additional vehicle miles traveled, and associated harmful emissions that result, should a long-term bridge outage occur. Total Project emission savings, both CO₂ and non-CO₂ combined, are \$22,138,783. These savings, calculated in the BCA, result from eliminating long detours should the bridges eventually fail and close permanently. Bridges will be constructed in the same right-of-way as current bridges. The Project will not affect endangered species or waterways.

Equity

The Department has long-standing policies in place to support all individuals equally and avoid discrimination. The Department's policy states:

“In accordance with Title VI of the Civil Rights Act of 1964 and other authorities, MaineDOT is committed to ensuring that the fundamental principles of equal opportunity are upheld in all

³¹ <https://www.maine.gov/mdot/safety/workzone/>

decisions involving our employees and contractors/consultants, and to ensuring that the public-at-large is afforded access to our programs and services. To that end, no person shall be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any MaineDOT program or activity on the grounds of race, color, or national origin. MaineDOT will work with staff, sub-recipients, contractors and service beneficiaries to promote awareness for the provisions of Title VI and the responsibilities associated with that Act.”³²

Workforce Development, Job Quality, and Wealth Creation

As detailed in the *Economic Competition and Opportunity* section of the Merit Criteria, the Project will create good-paying jobs that include strong labor standards guided by MaineDOT’s EEO Policy and Affirmative Action. MaineDOT will ensure Project contracts let through the Agency adhere to Federal and state law. MaineDOT maintains a strong focus on workforce development with an OJT Program providing meaningful training opportunities for Women, Minorities, and Disadvantaged individuals on Federal-aid highway and bridge projects, to develop full journeymen. The Project contractor is responsible for demonstrating to the Department steps taken to ensure training and recruitment includes disadvantaged populations.

The bridges provide a critical connection for rural residents to reach employment opportunities more prevalent in the region’s urban areas located on the east side of the bridges. The Project boundary is located near Augusta, the state capital (population 19,000) and Waterville, the state’s 15th largest city (population 16,000) and employment opportunities located in these urban areas.

As detailed in the *Economic Competitiveness and Opportunity* section, the University of Maine at Augusta, Colby College, and Thomas College are located in the region, as well as a middle school on Middle Road, the rural connector road paralleling the interstate between the Dinsmore Road and Lyons Road overpasses in Sydney. The overpasses indirectly support education and benefit students and faculty by efficiently connecting individuals to schools.

VIII. DOT PRIORITY SELECTION CONSIDERATIONS

The Project recognizes and complies with the following DOT priorities:

Plans to improve the condition of a bridge or bundle of bridges in poor condition or in fair condition and at risk of falling into poor condition within the next 3 years

The Project consists of replacing a bundle of five bridges currently in *Fair* condition and likely to rapidly deteriorate to *Poor* condition in the next three years, as well as one bridge currently in *Poor* condition and likely to deteriorate further in the next three years.

Demonstrates but for a BIP grant the project sponsor(s) will be unable to complete the Bridge Project

The Department is unable to complete the Project without BIP funding due to a number of challenging internal and external factors. I-95 overpasses were constructed alongside the interstate between the 1950s and 1970s and many are now reaching the end of their useful life simultaneously. The cost to rebuild these would be around \$1.2 billion, nearly all of the Department’s annual transportation project budget. Externally, the Department has experienced inflationary pressures that increase the cost of each infrastructure project.

³² <https://www.maine.gov/mdot/civilrights/title-vi/>

The applicants are an FLMA that owns the bridge and a State, and Bridge Project application provides evidence that upon completion of the project, the bridge will be divested
The Project bridges are all owned by the State of Maine; no involvement with an FLMA applies.

The project is or will be ready to proceed to the next stage of project delivery within 12 months of a CE Determination, FONSI, or ROD

The Project is expected to receive a Categorical Exclusion Determination and will proceed to the next stage of project delivery within 12 months of that determination. The Project Schedule is available in the *Project Readiness and Environmental Risk* section of the application.

The project includes accommodation for transit and/or multi-modal transportation such as the inclusion of bus rapid lanes on the bridge and pedestrian/bicycle facilities

Due to the rural location of the bridges, accommodations for transit and/or multi-modal transportation are not prevalent.

The project considers Workforce Development, Job Quality, Wealth Creation, project-related good-paying jobs, equitable access to those jobs, a free and fair choice to join a union, expanded training programs, and incorporates strong labor standards and includes strategies such as targeted hiring preferences for bringing in and retention of those historically underrepresented
As detailed in the *Economic Competition and Opportunity* section of the Merit Criteria, the Project will create good-paying jobs that include strong labor standards guided by MaineDOT's EEO Policy and Affirmative Action. MaineDOT will ensure Project contracts let through the Agency adhere to Federal and state law. MaineDOT maintains a strong focus on workforce development. MaineDOT's OJT Program provides meaningful training opportunities for Women, Minorities, and Disadvantaged individuals on Federal-aid highway and bridge projects. MaineDOT's OJT program requires contractors make every effort to enroll minority and women trainees (i.e., by conducting systematic and direct recruitment through public and private sources likely to yield women, minorities, and disadvantaged trainees) to the extent that such persons are available.

Without a BIP grant, construction of the project is unlikely to commence on time

Without BIP grant funding, Project construction is unlikely to commence prior to September 30, 2026, because sole state funding is not available and would be unsustainable, given the need. There are 56 outdated bridges passing over the interstate; the cost to replace all would be around \$1.2 billion, nearly all of MaineDOT's annual transportation project budget. Given high bridge replacement costs, the number of bridges requiring replacement, and inflationary pressures, the Department is unable to replace them without BIP funding. Many bridges over I-95 were constructed during the same historical timeframe, forcing MaineDOT to examine replacement of many overpasses simultaneously.

IX. Website

MaineDOT maintains a website used to post submitted grant applications and supporting information. The web page is organized by grant program. This application will be posted at the following web address. <https://www.maine.gov/mdot/grants/bip>