

Modernization and Investment in New Equipment (MAINE) Project

Field Name	Guidance
Name of lead applicant	Maine Department of Transportation
Is the applicant applying as a lead applicant with any joint applicants?	No
Does the applicant or joint applicant own the property where the grant-funded improvements will occur?	Yes
Is the applicant seeking funding under the small project at a small port set-aside?	Yes
Project name	Modernization and Investment in New Equipment (MAINE) Project
Project description	Consists of purchasing two (2) new reach stackers and two (2) new terminal tractors to replace aging, unreliable, and costly-to-repair equipment at the Portland International Marine Terminal (IMT, Terminal) in Portland, Maine.
Is this a planning project?	No
Is this a project at a coastal or Great Lakes port?	No
Is this project located in a noncontiguous State or U.S. territory?	Yes. Maine
Geographic Coordinates (in Latitude and Longitude format)	GPS coordinates: 43.647545, -70.258619. I
Is this project in an urban or rural area?	Urban
Project Zip Code	04101
Has the same project been previously submitted for PIDP funding?	No
Is the applicant applying for other Federal discretionary grant programs (managed by DOT or a separate agency) in 2026 for the same work or related scopes of work?	No
Has the applicant previously received DOT funding for the same work or related scope of work?	No
Has the applicant previously received TIGER/BUILD/RAISE, FASTLANE/INFRA, Mega, USMHP, or PIDP funding?	TIGER FY 2011 FASTLANE FY 2016 PIDP FY 2023

Modernization and Investment in New Equipment (MAINE) Project

PIDP Grant Amount Requested	\$2,318,400
Total Project Cost	\$2,898,000
Total Federal Funding	\$2,318,400
Total Non-Federal Funding	\$579,600
Will the applicant be seeking approval to expend funds prior to grant agreement execution?	No
Will RRIF or TIFIA funds be used as part of the project financing?	No
Private Corporation Involvement	No
Private Corporation Names	N/A
Does the applicant use LOGINK or a similar logistics platform provided or sponsored by the People's Republic of China or Chinese state-affiliated entities?	No

Modernization and Investment in New Equipment (MAINE) Project



Modernization and Investment in New Equipment (MAINE) Project



FY 2026 Port Infrastructure Development Program

U.S. Department of Transportation

Maritime Administration (MARAD)

Funding Opportunity Number: MA-PID-26-001

Assistance Listing Number: 20.823

Modernization and Investment in New Equipment (MAINE) Project

U.S. DEPARTMENT OF TRANSPORTATION

**FY 2026 Port Infrastructure Development Program (PIDP) Grant Application
Funding Opportunity Number: MA-PID-25-001**

Maine Department of Transportation

Project Name:	Modernization and Investment in New Equipment (MAINE) Project
Project Type:	Equipment Acquisition
Project Location:	Urban, Portland, Maine – 1 st Congressional District
Funds Requested:	\$ 2,318,400
Other Federal Funds Matched:	N/A
Non-Federal Funds Matched:	\$ 579,600
Total Project Cost:	\$ 2,898,000
Contact:	Mr. Matthew Burns, Dir., Office of Freight & Business Logistics Maine Department of Transportation 16 State House Station Augusta, ME 04333 Telephone: (207) 624-3409 E-mail: Matthew.Burns@maine.gov
UEI #:	MP59EXMVEMJ7

TABLE OF CONTENTS

TABLE OF CONTENTS.....	i
SECTION I: PROJECT DESCRIPTION	1
SECTION II: PROJECT LOCATION.....	8
SECTION III: GRANT FUNDS, SOURCES, AND USE OF FUNDS	10
SECTION IV: MERIT CRITERIA	12
SECTION V: ADDITIONAL CONSIDERATIONS	22
SECTION VI: STATUTORY DETERMINATIONS	26
LETTERS OF SUPPORT.....	28
ATTACHMENTS.....	29

SECTION I: PROJECT DESCRIPTION

The *Modernization and Investment in New Equipment (MAINE) Project* (Project), developed by the Maine Department of Transportation (MaineDOT, Department) and the Maine Port Authority (MPA), consists of purchasing two (2) new reach stackers and two (2) new terminal tractors to replace aging, unreliable, and costly-to-repair equipment at the Portland International Marine Terminal (IMT, Terminal) in Portland, Maine. MaineDOT is the lead applicant. Replacement equipment is needed to greatly improve the safety, efficiency, and reliability of the IMT to maintain its competitiveness in the global supply chain. Improved efficiency is the only way the IMT can effectively increase its intermodal container business. Surrounded by historic neighborhoods, seafood docks, and bordered by a busy commercial boulevard, the Terminal is ‘landlocked’ and cannot expand its footprint to meet the oncoming increase in demand. Therefore, operating the terminal with safer, more reliable, and more efficient equipment is the only way to increase Terminal productivity. The Project consists of purchasing:

- Two new intermodal container **reach stackers**
- Two new **terminal tractors** (also commonly known as yard trucks or hustler trucks)



There are currently four reach stackers in service at the IMT. Two of them have a high number of operating hours (approximately 14,000 hours and 10,500 hours). While information varies regarding the useful life of a reach stacker, other ports have replaced them after 10 to 15 years of service with regular maintenance and some major overhauls. The terminal stevedore, Eimskip (the Terminal’s only container shipping tenant), who is also contracted with the MPA to operate and maintain port equipment, typically replaces reach stackers after 10,000 hours of service.

Spending on maintenance for the two oldest reach stackers essentially now surpasses what it would cost to purchase new ones. The annual maintenance costs for the two oldest reach stackers combined (\$160,481 in 2025) is now twice the new-equipment benchmark of \$80,000 combined for two units.¹ Maintenance costs for the two oldest terminal tractors are also escalating — \$27,700 was the combined annual maintenance cost increase between 2024 and 2025.

The equipment is breaking down frequently, often when it is needed most — during vessel calls at the terminal when the equipment is loading or unloading containers. Equipment breakdowns lead to periods of downtime, which increases the cost of doing business at the IMT.

Without grant funding, the purchase of new equipment is unlikely to occur because the MPA would require several more years of capital raise to allocate the funds necessary to purchase the equipment. That would result in new and existing container traffic being diverted to other ports outside of Maine. Eimskip, as well as potential new IMT customers, could view the setback as a lack of commitment to the partnership and growth at the Terminal. Eimskip, which has self-

¹ New equipment benchmarks: reach stacker = \$40,000/yr (3-5% of \$1,000,000 purchase price, per industry standard); terminal tractor = \$26,000/yr avg (MPA estimate).

Modernization and Investment in New Equipment (MAINE) Project

funded investments to drive throughput such as chartering vessels to increase the liner service to weekly and hiring staff to increase efficiency of operations, would expect that same support of MPA. Lack of funding would force the MPA to spend several more years raising the funds necessary to eventually purchase equipment.

The IMT handled more than 40,500 TEUs in 2025. (TEU stands for Twenty-Foot Equivalent Unit — a common shipping container length that has become the standard unit of measure in the shipping industry used to calculate cargo volume, port throughput, and the carrying capacity of container ships.) All containers serve Icelandic shipping company Eimskip, a \$296 million



Reach Stacker



Terminal Tractor

container shipping company calling on ports in Europe, North America, South America, and Asia. Eimskip specializes in moving frozen and chilled commodities in both dry box and refrigerated containers. Eimskip has 52 full-time employees at the Terminal.

The MPA utilizes local International Longshoremen's Association (ILA) labor to maintain the reach stackers and terminal tractors. The IMT, and Eimskip's footprint within it, is a significant economic contributor to Portland and the state — generating more than \$460 million annually for the Pine Tree State economy.

Year	Annual Twenty-Foot Equivalent Unit (TEU) LOADED	Annual Twenty-Foot Equivalent Unit (TEU) EMPTY	Annual Twenty-Foot Equivalent Unit (TEU) TOTAL
2022	33,740	9,695	43,435
2023	31,893	12,120	44,013
2024	29,376	8,939	38,315
2025	30,820	9,807	40,627

Of the state's three port terminals (Portland, Searsport, and Eastport), the IMT is the only port handling container traffic and the only one owned by the MPA. Marine terminals in Portland adjacent to the IMT handle a wide variety of other traffic — including bulk and break bulk cargo and liquids. There are also multiple cruise ship terminals.

Connected Components

Nearly every container that moves through the Terminal is handled by both a reach stacker and terminal tractor as it is processed. In most cases, control of a container is immediately transferred from one piece of equipment to the other. Therefore, to keep the Terminal fluid, it is imperative that both types of equipment are in good working order simultaneously. It is counterproductive

to have one type working while the other type is out of service, resulting in container delay. Therefore, providing full PIDP funding for both connected equipment types is essential to restoring efficiency at the IMT.

The Maine Port Authority is working alongside U.S. Customs and Border

Protection (CBP) to construct and implement a fixed radiation scanner at the IMT. As container volume has increased, along with the variety of commodities handled in containers, the partnership between CBP and MPA has expanded. The new radiation scanner is in the final stages of the design process and will move to construction soon. Reliability of the terminal tractors will become even more critical as they will be tasked with constantly moving containers through it.

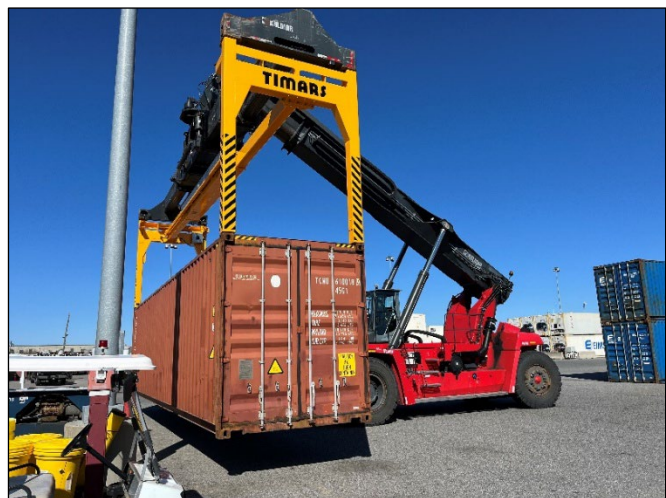
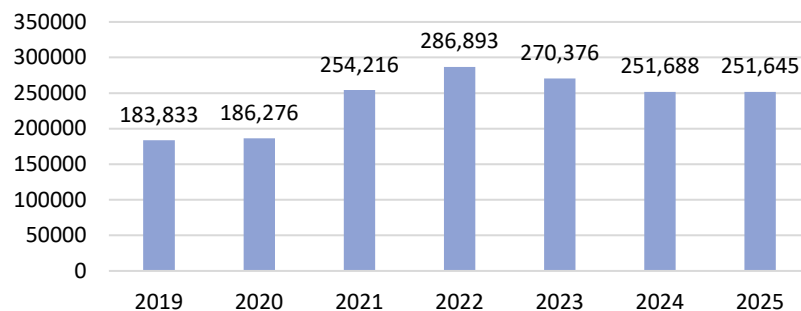
Statement of Work

The *Modernization and Investment in New Equipment (MAINE) Project* consists of purchasing two new **reach stackers** and two new **terminal tractors** (also commonly known as yard trucks or hustler trucks) to replace aging, unreliable, and costly-to-repair equipment at the Portland International Marine Terminal (IMT) in Portland, Maine. Replacement equipment is needed to greatly improve the safety, efficiency, and reliability of the IMT to maintain its competitiveness in the global supply chain. It is the only way the IMT can effectively increase its intermodal container business. The IMT is surrounded by historic neighborhoods, seafood docks, and bordered by a busy commercial boulevard, preventing Terminal expansion to meet the oncoming increase in demand. Therefore, operating the terminal with safer, more reliable, and more efficient equipment is the only way to increase Terminal productivity. The IMT is unable to function properly without reach stackers and terminal tractors that are safe, efficient, and reliable. Maine Port Authority and Maine Department of Transportation officials always remain informed of the latest features made available by manufacturers of the equipment so they can make informed purchasing decisions that add value.

Reach Stackers

Reach stackers are used to remove inbound containers from their chassis and place them onto a stack of containers. The operator then uses the reach stacker to place a container onto the same chassis for an efficient reverse move outbound. The

IMT Annual Tonnage Combined
(Import/Export)



A reach stacker sets a container down at the IMT.

Modernization and Investment in New Equipment (MAINE) Project

new reach stackers will be equipped with outriggers, which act as ‘stabilization legs’ enabling the reach stacker to stack and unstack containers in a pile up to five containers high. Four are required to operate the Terminal efficiently every day while simultaneously providing capacity to handle future growth. Every container that enters or exits the Terminal is handled by a reach stacker at least twice. The reach stackers targeted for replacement have exceeded or are approaching the 10,000-hour replacement threshold — one has approximately 14,000 operating hours and the other has about 10,500 operating hours.

Terminal Tractors

Terminal tractors are responsible for moving containers throughout the IMT where they move containers everywhere — from the dockside area to the container staging area to the on-site dry and refrigerated warehouses to the railroad flatcar loading area. Like the reach stackers, the terminal tractors also touch 95 percent of the containers handled by the IMT.

Detailed Procurement Process

MaineDOT is very experienced in procuring a variety of transportation equipment, which will be procured through a competitive Request for Proposals (RFP) process managed by the MaineDOT Contract Procurement Office (CPO). The process involves compliance with strict state and Federal regulations, particularly regarding domestic content. Solicitations will be advertised electronically via a Vendor Self Service (VSS) system. Bidders must provide detailed technical and cost proposals, including drawings, specifications, and rough order of magnitude pricing. The MPA is always monitoring the domestic port equipment manufacturing market and is aware of the prices of the equipment. MaineDOT will ensure the equipment will be manufactured domestically; there are U.S.-based companies that manufacture the equipment. Should there be price fluctuations in the cost of the equipment, MaineDOT is committed to providing all additional funding. MaineDOT will be able to complete procurement of the equipment by November 2028, well in advance of the obligation deadline of September 30, 2030, and expenditure deadline of September 30, 2035.

The Project is consistent with Executive Order "Restoring America's Maritime Dominance", April 2025, which addresses national security concerns regarding Chinese dominance in the maritime and logistics sectors, including cargo-handling equipment.² It ensures the use of domestic equipment manufacturers to build the equipment to be procured.

Equipment Features

The equipment purchased will have numerous features that are safe, efficient, and reliable:

Reach Stackers: camera systems, load moment indicators (LMI), pedestrian detection capabilities, fuel consumption reduction of up to 40 percent than 5 – 10-year-old models,³ advanced hydraulic load-sensing to reduce energy consumption per move, and five-high stacking capability with outriggers to maximize container storage density within IMT's constrained footprint.

Terminal Tractors: in-cab coupling to eliminate non-productive exit/re-entry time on every

² Executive Order "Restoring America's Maritime Dominance", April 2025, <https://www.whitehouse.gov/presidential-actions/2025/04/restoring-americas-maritime-dominance/>

³ Sources: Kalmar, Eco Reachstacker Product Documentation; Kalmar / Cabooter Group Case Study (2019)

Modernization and Investment in New Equipment (MAINE) Project

container move, in-cab hydraulic coupling to eliminate ground-level exposure during a very injury-prone task (modern terminal tractors use a hydraulic fifth wheel allowing operators to couple and decouple chassis connections entirely from within the cab), rollover protection, falling object protection, enhanced visibility to reduce blind spot-related incidents. Offset single-person cabs with large windows, multiple exterior mirrors, and rear cameras provide near 360-degree operator visibility, and telematics that enable predictive maintenance — reducing in-service mechanical failure risk.

Project Schedule

MaineDOT will be able to complete equipment procurement and Project expenditure by November 2028, well in advance of the obligation deadline of September 30, 2030.

Project Milestone	Begin Date	End Date
MARAD Project Selection	-	October 2026
NEPA Process	November 2026	May 2026
Grant Agreement	November 2026	July 2027
Advertise RFP	August 2027	September 2027
Vendor Selection	October 2027	October 2027
Vendor Contract Executed	November 2027	November 2027
Equipment Delivery and Commissioning	November 2028	November 2028
Final Performance Report	December 2028	February 2029
Project Closeout	March 2029	March 2029

The above dates are contingent on a timely grant agreement and may be subject to change due to agreement date. If grant funding is successful, the equipment being replaced could be moved to either Searsport or Eastport and be used there in the event those ports begin process containers — creating much-needed equipment versatility at those ports.

About the Portland International Marine Terminal (IMT)

The IMT is the closest U.S. container port to Europe and the Nordic countries. It is a coastal seaport subject to the U.S. Army Corps of Engineers regulatory jurisdiction for oceanic and coastal waters under 33 CFR § 329.12 and is capable of receiving oceangoing vessels with a draft of 32 feet. MaineDOT, a cabinet-level state agency with primary responsibility for statewide transportation by all modes of travel, is an eligible applicant with the authority to apply for Federal funding. The Department is the lead applicant. The Maine Port Authority is a state quasi-governmental agency enabled by the Maine Legislature under Title 23, §4420: Purpose.⁴ The MPA has the authority to purchase, own, operate, and maintain grant-funded equipment. The MPA owns the 21-acre IMT land parcel and develops capital projects in partnership with MaineDOT through the state's *Three-Year Work Plan*.⁵ The MPA has three full-time employees: an Executive Director, Operations Manager, and Finance Manager. At the IMT, Eimskip

⁴ Maine Revised Statutes, Title 23: TRANSPORTATION, Part 6: WATERBORNE TRANSPORTATION, Chapter 412: WATERBORNE TRANSPORTATION, Subchapter 2: MAINE PORT AUTHORITY, <https://legislature.maine.gov/legis/statutes/23/title23sec4420.html>

⁵ *MaineDOT's Three-Year Work Plan, 2026 Edition*, <https://storymaps.arcgis.com/stories/ac0941dc1204417ab1869d9585316d77>

Modernization and Investment in New Equipment (MAINE) Project

employs 28 people in office/management positions and 24 laborers.

A variety of shippers throughout Maine and New England utilize Eimskip's service. According to the USDOT Bureau of Transportation Statistics, in 2023 the Port of Portland ranked 78th in the nation for total port tonnage, handling 4.26 million short tons annually, and ranked 45th in the nation for twenty-foot equivalent units (TEU), handling more than 44,000 TEUs.⁶

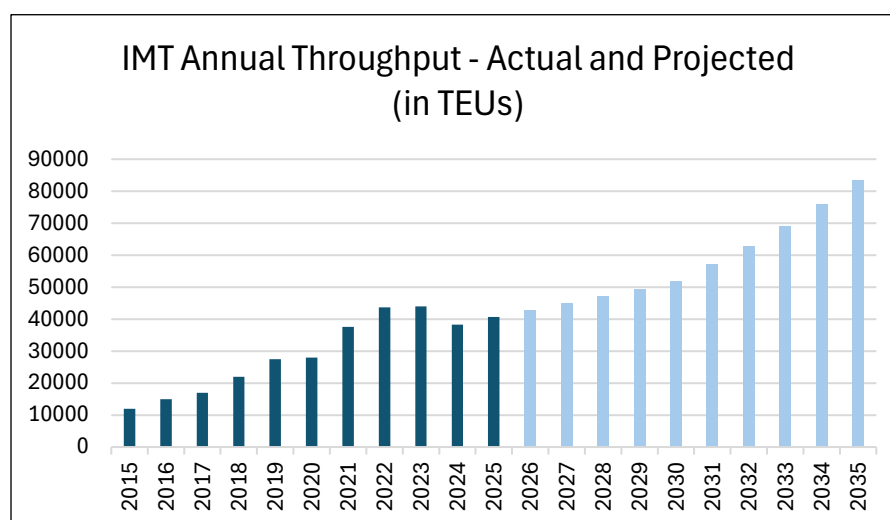
Year	Port of Portland Annual Tonnage Throughput (in short tons)
2022	4.30 million
2023	4.26 million
2024	4.00 million
2025	3.43 million

Initially, the only product shipped through the IMT was frozen seafood, however, over the past 10 years the number and types of cargo handled has expanded. Eimskip imports include alcohol, clothing, frozen and fresh fish, bottled water, vehicles, machinery, chocolate, lamb meat, salt, ferrosilicon, and medical supplies. In exchange, Maine exports ammunition, chemicals, medical and research products, building materials, lobster, scallops, fruit concentrates, blueberries, french fries, other produce and food products, automobiles, motorcycles, cardboard, steel, paper, plastic, and scrap metal.

The IMT handles containerized, project, heavy lift, and dimensional cargo. It has a 785-foot-long concrete wharf with a 35-foot water depth alongside the pier. The MPA owns and operates two rubber-tire mobile harbor cranes used for ship-to-shore container operations, four reach stackers, one rail packer, four terminal tractors, a railcar mover, a rail connection to a Class I railroad (CSX Transportation), laydown capacity for dry and refrigerated containers, a bonded warehouse for crossdocking, an adjacent cold storage facility (Maine International Cold Storage Facility), and a 50-person training facility. The IMT is a certified member of CTPAT (Customs Trade Partnership Against Terrorism), a U.S. Customs and Border Protection (CBP) program that certifies businesses as low risk for security threats and results in expedited cargo processing with fewer and faster customs examinations.

Port Volume Growth

The Maine Port Authority has been instrumental in supporting the growth of Eimskip's trans-Atlantic service. Eimskip began calling on the IMT in 2013, commencing with just two port calls per month. Service expanded to weekly in 2018 utilizing 900-TEU vessels. Eimskip's



⁶ Port Performance Freight Statistics Annual Report 2026, USDOT Bureau of Transportation Statistics, page B-3, B-9, https://www.bts.gov/sites/bts.dot.gov/files/2026-01/BTS_Port-Performance-2026_Annual-Report_Final%2011326.pdf

Modernization and Investment in New Equipment (MAINE) Project

container throughput at the Terminal has steadily increased since first calling on Portland in 2013. In 2025, the IMT handled a loaded total of 30,820 TEUs. Including empties, which the Project equipment handles alongside loads, the IMT handled 40,627 TEUs in 2025. Eimskip now utilizes up to 1,025-TEU vessels. Portland is the only U.S. port Eimskip serves — vessels continue to call on Portland weekly. A variety of shippers from Maine and New England utilize Eimskip service. In the future, the IMT will be capable of handling even larger ships — 2000-2500 TEU vessels — should a carrier call on Portland using this size vessel in the future. Alongside this growth, the MPA seeks to make Portland a thriving cold-chain logistics hub capable of competing with Massport in Boston for refrigerated container handling capacity.

Connected Investments

New equipment would be instrumental in supporting previous and current investments in the IMT because the new equipment would handle containers destined for all of the Terminal's new infrastructure. Since 2009, total investment to develop, rehabilitate, and modernize the IMT into a container shipping terminal has reached nearly \$115 million in state and Federal funding. The MPA was instrumental in forming a public/private partnership to fund construction of the \$55 million Maine International Cold Storage Facility, which supports the unloading, storage, repackaging, and transport of goods via refrigerated containers. The 106,000-square-foot facility, located adjacent to the marine terminal, was opened in February 2025.⁷ Additionally, a 2023 PIDP grant award is helping fund an expansion of the IMT's refrigerated container yard. Refrigerated container racks with electrical plugs are being constructed, increasing the container storage capacity to about 445, which consists of a mix between 175 long-term refrigerated containers and 270 short-term refrigerated and/or non-refrigerated containers. The MPA, in partnership with MaineDOT, has been successful securing previous grant funding:

Grant Program	Year	Award Amount	Purpose
TIGER	2011	\$10,810,000	80-year-old Kennebec Bridge replacement between Richmond and Dresden
Port Security Grant Program (PSGP)	2015	\$151,000	New Generator for yard lighting
FASTLANE	2016	\$7,719,000	New terminal office building, wharf rehabilitation, paving and grading, equipment purchase, additional rail capacity
PSGP	2016	\$288,000	Access Control System, Alert System, CCTV
Port Infrastructure Development Program (PIDP)	2020	\$1,324,000	Rehabilitation of existing refrigerated container yard
PIDP	2023	\$14,240,000	New refrigerated container yard with additional capacity and refrigerated container racks

The Portland IMT is becoming the regional leader in cold chain logistics and will continue its prominence as the U.S. port of entry for frozen seafood and other Icelandic and European goods along Eimskip's shipping routes.

⁷ *Baby, it's cold inside: \$56M waterfront facility is poised to turn Portland into regional logistics hub*, Mainebiz, February 10, 2025, <https://mainebiz.biz/article/baby-its-cold-inside-56m-waterfront-facility-is-poised-to-turn-portland-into-regional/>

Project Consistency with PIDP and Administration Goals

The Project is consistent with PIDP grant program initiatives — it will “improve the safety, efficiency, or reliability of: The loading and unloading of goods at a port; The movement of goods into, out of, around, or within a port; Operational improvements at a port; and Infrastructure that supports seafood and seafood-related businesses.”

Purchase of the equipment is expected to be completed by November 2028. There are no previously completed Project components for this type of project. The Project is consistent with Executive Order "Restoring America's Maritime Dominance", April 2025, which addresses national security concerns regarding Chinese dominance in the maritime and logistics sectors, including cargo-handling equipment.⁸ The Project ensures the use of domestic equipment manufacturers to build the equipment to be procured.

The Project aligns with all PIDP Merit Criteria. Each criterion has clear, direct, data-driven, and significant benefits that target known, documented, and long-standing problems.

SECTION II: PROJECT LOCATION

The Project is a **Small Project at a Small Port**: MaineDOT is requesting \$2,318,400. This is less than the \$11.25 million funding threshold listed under 46 U.S.C. 54301(b), qualifying the Project as a Small Project. The Port of Portland, of which the IMT is a part, qualifies as a Small Port because the average annual tonnage of cargo handled for the immediately preceding three calendar years from the time of application submittal is less than 8,000,000 short tons. According to the *2025 Port Performance Freight Statistics Annual Report*, the Port of Portland handled 4.3 million short tons of freight in **2022**, ranking it 79th in the nation.⁹ The Port handled 4.26 million short tons of freight, ranking it 78th in the nation, according to **2023** Bureau of Transportation Statistics (BTS) data located in the *2026 Port Performance Freight Statistics Annual Report*.¹⁰ The Port handled 4.0 million short tons of freight in **2024** and 3.43 short tons in **2025**. The data meets the criteria threshold in that it is applicable to the Port, is authoritative in that the data is compiled by the Port Director, who is authorized to receive the data. The data is exact and is in tonnage format.

The Project is located at the following GPS coordinates: 43.647545, -70.258619. It is located in a Census Designated Urban Area, a Qualified Opportunity Zone, and an Area of Persistent Poverty and all spending will take place in these locations. The IMT is located in 2020 U.S. Census Designated Urban Area 71263, which has a population of 205,356 residents. It is located in Census Tract 23005000300 (3), which is a Qualified Opportunity Zone and an Area of

⁸ Executive Order "Restoring America's Maritime Dominance", April 2025, <https://www.whitehouse.gov/presidential-actions/2025/04/restoring-americas-maritime-dominance/>

⁹ USDOT Bureau of Transportation Statistics, *Port Performance Freight Statistics Annual Report 2025*, page 61, https://www.bts.gov/sites/bts.dot.gov/files/2025-03/BTS_Port-Performance-2025_Annual-Report_for%20web_20250224-1232.pdf

¹⁰ USDOT Bureau of Transportation Statistics, *Port Performance Freight Statistics Annual Report 2026*, page B-3, https://www.bts.gov/sites/bts.dot.gov/files/2026-01/BTS_Port-Performance-2026_Annual-Report_Final%2011326.pdf

Modernization and Investment in New Equipment (MAINE) Project

Persistent Poverty.¹¹ The Project Census Tract borders five other Census Tracts that are all Areas of Persistent Poverty: 23005000500 (5); 23005000600 (6); 23005001000 (10); 23005001100 (11); 23005001300 (13). The closest adjacent Census Tract to the IMT, Tract 11, is also a Qualified Opportunity Zone.

GPS Coordinates	Census Tract	Location Designation	Amount of Spend	Percent of Funds
43.647545 -70.258619	23005000300 (3)	Urban Area Qualified Opportunity Zone Area of Persistent Poverty	\$2,898,000	100%

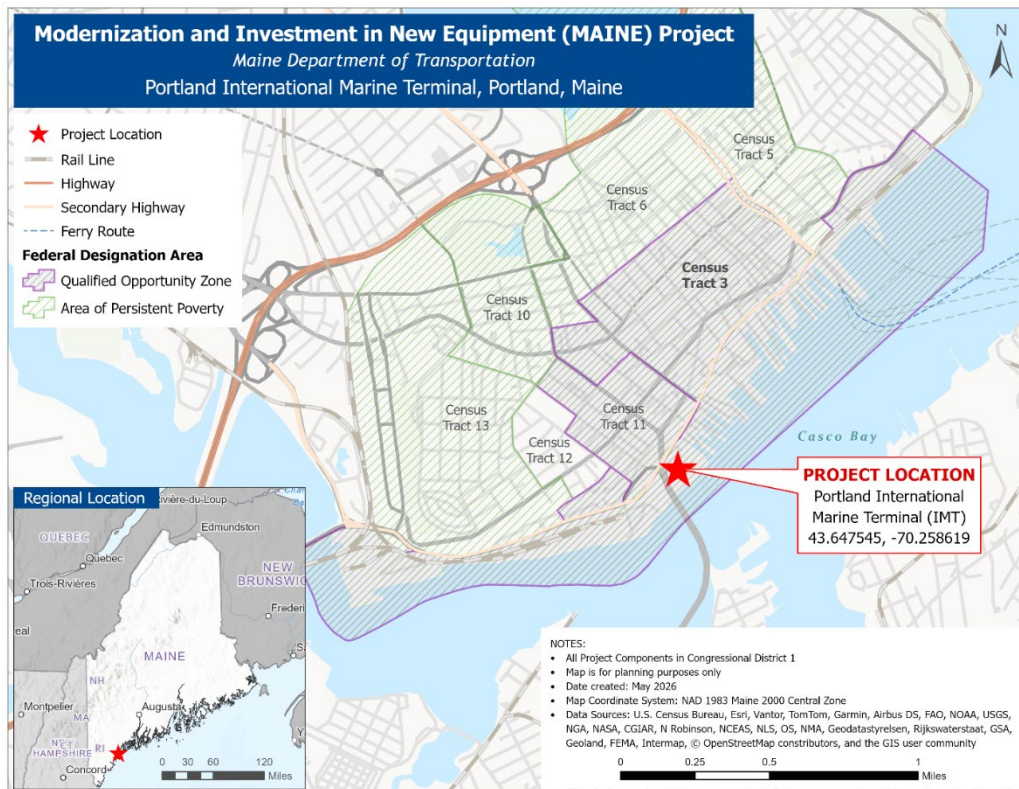
Located in Cumberland County, Portland is in the southern part of the state, on the shores of the North Atlantic Ocean. It has a population of approximately 69,000 residents, making it the largest city in the state. The greater Portland Metropolitan Statistical Area has a population of more than 550,000 residents. Its residential and tourist-driven downtown has numerous shops, restaurants, grocery stores, banking centers, health care centers, and convenient access to other everyday services. It is a state-designated service center.

Equipment Renderings

A possible reach stacker: <https://taylorforklifts.com/products/container-handler/reach-stacker/XRS-9972>

A possible terminal tractor: <https://ticotracors.com/tico-pro-spotter/>

Project Map



¹¹ IRS Internal Revenue Bulletin: 2018-28, July 9, 2018, https://www.irs.gov/irb/2018-28_IRB#NOT-2018-48

Connections to Existing Multimodal Infrastructure

The IMT is noted for its proximity to Interstate 95, which is located on the Primary Highway Freight System (PHFS) of the National Highway Freight Network (NHFN).¹² It is located just 1.8 miles from Interstate 295 and 5 miles from Interstate 95, the primary freight artery in the Northeast. The new terminal tractors will be USDOT-certified, meaning they will be able to travel on West Commercial Street to access the Maine International Cold Storage Facility and the warehouse at Cassidy Point. As a result, it will become more efficient for customers to utilize these facilities. The equipment will also transport containers to the intermodal railhead located adjacent to the IMT.

SECTION III: GRANT FUNDS, SOURCES, AND USE OF FUNDS

Sources, Uses, and Availability

The Project is a **Small Project at a Small Port**. The total Project cost is \$2,898,000. No expenses will be incurred between time of award and time of obligation. The Maine Department of Transportation (MaineDOT, Department) is the primary applicant and is requesting 80 percent funding from USDOT, or \$2,318,400 in PIDP funding. MaineDOT has provided a funding commitment letter, located in the application, and match funds are readily available. There are no additional funding parties contributing to the Project. MaineDOT's match funding will come from the state budget using non-Federal funds.

Funding Source by Project Component in Dollars and Percentages

Project Component:	2 Reach Stackers	2 Terminal Tractors	15% Contingency	Total Funding	Funding Percent
FY26 PIDP Funding Request:	\$ 1,760,000	\$ 256,000	\$ 302,400	\$ 2,318,400	80%
Other Federal Funds:	\$ -	\$ -	\$ -	\$ -	-
Non-Federal Funds:	\$ 440,000	\$ 64,000	\$ 75,600	\$ 579,600	20%
Total Project Cost:	\$ 2,200,000	\$ 320,000	\$ 378,000	\$ 2,898,000	100%

Cost Classification by Funding Source in Dollars and Percentages

Cost Classification	FY26 PIDP Funding Request	Other Federal Funds	Non-Federal Funds	Total Funding	Funding Percent
2 Reach Stackers:	\$ 1,760,000	\$ -	\$ 440,000	\$ 2,200,000	80%
2 Terminal Tractors:	\$ 256,000	\$ -	\$ 64,000	\$ 320,000	-
Contingency (15%):	\$ 302,400	\$ -	\$ 75,600	\$ 378,000	20%
Total Funding:	\$ 2,318,400	\$ -	\$ 579,600	\$ 2,898,000	100%

¹² National Highway Freight Network Map, 2022,
https://ops.fhwa.dot.gov/Freight/infrastructure/nfn/maps/nhfn_map.htm

Modernization and Investment in New Equipment (MAINE) Project

Funding Source Type		
Funding Source	Type (e.g., grant, loan, bond, etc.)	Source
Other Federal Funds:	None	N/A
Non-Federal Funds (MaineDOT):	State Budget	state taxes, gas tax, etc.

The Project is located in an Urban Area, an Opportunity Zone, and an Area of Persistent Poverty; all spending will take place in these locations. The IMT is located in 2020 U.S. Census-designated Urban Area 71263, which has a population of 205,356 residents. It is located in Census Tract 23005000300 (3).¹³ The Project Census Tract borders five other Census Tracts that are all Areas of Persistent Poverty: 23005000500 (5); 23005000600 (6); 23005001000 (10); 23005001100 (11); 23005001300 (13). The closest adjacent Census Tract to the IMT, tract 11, is also a Qualifying Opportunity Zone.

There are no sources of Federal funds currently allocated or committed to the Project; therefore, no Federal funding has been, or will be, proposed as match. MaineDOT is not requesting any Project components receive partial funding. No funds will be spent on Final Design or Construction prior to obligation of funding. The Department is not requesting grant funding to purchase land. There is no funding that must be spent by a certain time. MaineDOT is a cabinet-level state agency with primary responsibility for statewide transportation by all modes of travel. MaineDOT employs approximately 1,600 people and expends or disburses more than \$1 billion per year, including Federal, State, and local funds.

Contingency Amount and Plan

A 15-percent contingency component has been factored into the Project budget. MaineDOT is very experienced working with the U.S. Department of Transportation to fund, construct, manage, and complete Federally funded infrastructure projects, including those involving procurement of complex equipment. Should there be price fluctuations in the cost of the equipment, MaineDOT is committed to providing all additional funding.

Project Cost by Census Tract	
2020 Census Tract(s)	Project Cost per Census Tract
23005000300 (3)	\$ 2,898,000
Total Project Cost:	\$ 2,898,000

Project Cost by Urban and Rural Areas	
Urban/Rural	Project Cost
Urban: (2020 Census data urban area with pop greater than 200,000)	\$ 2,898,000
Rural: (located outside of an Urban area)	N/A
Total Project Cost:	\$ 2,898,000

¹³ IRS Internal Revenue Bulletin: 2018-28, July 9, 2018, https://www.irs.gov/irb/2018-28_IRB#NOT-2018-48

Level of Design

This is an equipment acquisition project. Design is not involved.

Cost Estimates

Cost estimates were completed by obtaining replies to RFPs from equipment manufacturers and closely monitoring the market for this type of equipment.

Cost Share/Match

MaineDOT is requesting 80 percent funding from USDOT, or \$2,318,400 in PIDP funding. There are no additional funding sources involved in the Project.

SECTION IV: MERIT CRITERIA

The *Modernization and Investment in New Equipment (MAINE) Project* consists of purchasing two new reach stackers and two new terminal tractors to replace aging, unreliable, and costly-to-repair equipment at the Portland International Marine Terminal (IMT, Terminal) in Portland, Maine. Replacement equipment is needed to greatly improve safety, efficiency, and reliability at the IMT while simultaneously supporting the Terminal's competitive advantages: 1) Closest U.S. container port to Europe and the Islandic nations, 2) Ability to take on new business despite its relatively small footprint, 3) Value proposition despite close proximity to larger ports like Boston. The IMT is unable to grow geographically, therefore, operating with new, reliable equipment will be a catalyst for increasing productivity and throughput.



An Eimskip container ship is unloaded at the IMT.

Achieving Safety, Efficiency, or Reliability Improvements

In an environment where time equals expense, the IMT is unable to function properly without reach stackers and terminal tractors that are safe efficient, and reliable. Four of each are required to operate the Terminal efficiently every day and also provide the capacity to handle future growth. Every container that enters or exits the Terminal is handled by a reach stacker. The Terminal currently has four and all are utilized daily, however, at least one is usually sidelined in need of repair. Reach stackers are used to remove inbound containers (arriving by road) from their chassis and place them onto a stack of containers. They then place an outbound container onto the same chassis for an efficient reverse move. The new reach stackers will be equipped with outriggers, which act as 'stabilization legs' enabling the equipment to stack and unstack containers up to five high.

Terminal tractors also touch nearly every container handled at the IMT. They are responsible for moving containers throughout the Terminal — from the dockside area, to the container staging area, to the on-site dry and refrigerated warehouses, to the railroad flatcar loading area.

Safety

Marine terminal workers in the U.S. face a fatal injury rate five times the national average. From 2011-2017, fatal injuries occurred at a rate of 15.9 per 100,000 workers annually — five times the U.S. average of approximately 3.5 per 100,000 in 2023. Primary hazards include vehicle-pedestrian interactions, suspended loads, and heavy equipment operation.¹⁴

The Project will protect individuals inside the IMT from safety risks and reduce the threat of serious injuries and/or fatalities related to port operations.

Safety – Reach Stacker

The safety features of the reach stackers can be grouped into four categories that address numerous risks that can develop at a busy container terminal:

Load Management & Stability	
<i>Load Moment Control (LMC)</i>	Monitors load weight, boom angle, and extension distance; automatically restricts movement if load exceeds capacity.
<i>Stabilizers</i>	Front-mounted stabilizers increase stability during second- and third-rail operations (reaching over adjacent flatcars on tracks). ★ NEW
Operator Aids & Visibility	
<i>Camera Systems</i>	Rear-view, boom-mounted, and spreader cameras providing real-time, 360-degree visibility and blind-spot reduction.
<i>Ultrasonic Sensors</i>	Measure distances to containers to assist with precise positioning and prevent collisions. ★ NEW
<i>Cabin Design</i>	Ergonomic, high-visibility cabin with windshield wipers for all weather conditions.
<i>Enhanced Visibility</i>	Offset, single-person cab with large windows providing 360-degree view, reducing accident and cargo damage risk.
<i>Superior Maneuverability</i>	Short wheelbase and tight turning radius for navigation in congested and narrow spaces.

Camera systems and ultrasonic sensors substantially reduce collision and blind-spot incidents. Rear-view, boom-mounted, and spreader cameras provide 360-degree real-time visibility. Studies of backup camera technology in industrial applications indicate approximately a 17 percent reduction in collision rates. More advanced AI-based pedestrian detection systems have demonstrated up to a 65 percent reduction in pedestrian collision risk in port and logistics environments.¹⁵

¹⁴ Sources: [CDC/NIOSH, Marine Terminals and Port Operations \(Dec. 2023\)](#); [BLS, Fatal Work Injuries, 2023](#)

¹⁵ Sources: [Midco Forklift / Toyota SEnS Pedestrian Warning System \(2023\)](#); [viAct AI Safety Platform \(2026\)](#)

Modernization and Investment in New Equipment (MAINE) Project

Collision Prevention & Operational Controls	
<i>Twistlock Indicators</i>	Ensure containers are securely locked to the spreader before lifting.
<i>Speed Limitation</i>	Automatically limits driving speed when the boom is raised or when operating outside of transport mode.
<i>Pedestrian Detection</i>	Technology designed to alert the operator to the presence of personnel in the work zone. ★ NEW
<i>Emergency Stop</i>	Easily accessible buttons to halt operations instantly in dangerous situations.

Maintenance & Structural Safety	
<i>Structural Integrity Check</i>	Regular inspection of boom, twistlocks, and hydraulic systems required to ensure safe operation.
<i>Anti-Slip Surfaces</i>	Prevents operator falls during maintenance or while accessing the cabin.

Safety – Terminal Tractor

The safety features of the terminal tractors address numerous risks that can develop while moving containers throughout a busy terminal:

Visibility & Ergonomics	
<i>Cabin Design</i>	Large windows, lowered dashboards, and strategically placed mirrors minimize blind spots and reduce operator fatigue.
<i>Visibility Aids</i>	Flashing amber lights, rear tail/work lights, and cameras ensure visibility during day and night operations.
Cab Protection & Access	
<i>Cab Structure</i>	Reinforced, high-strength steel cab with standard rollover protection (ROPS) and falling object protection (FOPS).
<i>Operator Access</i>	Specialized rear doors facilitate safe, three-point access; ergonomic air-suspension seating improves comfort and posture.
Operational Safety	
<i>Coupling System</i>	Automated or easy-to-reach trailer coupling allows operators to connect trailers from inside the cab, reducing exposure to moving vehicles.
<i>Advanced Systems (TPMS & Telematics)</i>	Tire pressure monitoring and telematics/GPS for real-time tracking, maintenance, and route optimization. ★ NEW
<i>Automatic Chain System</i>	Due to winter snow and ice in Portland, the trucks are equipped with automatic tire chains to enhance driver safety during terminal operations in inclement weather.

Enhanced visibility design reduces blind-spot-related incidents. Limited visibility is cited by OSHA as a primary contributing factor in terminal vehicle-pedestrian incidents.¹⁶

¹⁶ Source: [*OSHA, Traffic Safety in Marine Terminals \(Pub. 3337, 2014\)*](#)

Modernization and Investment in New Equipment (MAINE) Project

Efficiency

The Project will result in a documented increase in cargo throughput by meeting Eimskip's need for additional throughput capacity — which is expected to double over the next decade. The efficiency improvement will enhance the speed of current cargo operations and provide additional capacity for future cargo.

Efficiency – Reach Stacker

MPA officials have developed the Project to improve the speed and efficiency and documented increase in cargo throughput. The Project supports the future increase in demand projected at the IMT, which will expand not only the amount of containers handled, but also the types of cargo that can be moved through containers at the Terminal. New reach stackers have an efficiency advantage over the existing equipment, including:

<i>Stacking Capacity</i>	Stacks containers up to five rows high, maximizing storage capacity in congested ports such as the IMT.
<i>Container Versatility</i>	Handles 20ft to 40ft containers (loaded or empty) via telescopic booms; supports ships, trucks, and railroad flatcars.
<i>Operational Cycle Speed</i>	Faster load transfer and movement vs. traditional equipment, reducing turnaround times.
<i>Maneuverability</i>	Designed to navigate tight, congested spaces efficiently.
<i>Reduced Equipment Needs</i>	A single unit can lift, transport, and stack, often reducing the need for multiple specialized machines.
<i>Enhanced Operator Visibility</i>	Improved visibility increases speed and precision of operations.

Efficiency – Terminal Tractor

The efficiency advantages of the terminal tractors consist of:

<i>Rapid Loading/Unloading</i>	Hydraulic fifth wheel and sliding rear doors allow drivers to connect/disconnect trailers without leaving the cab, saving time per move.
<i>Superior Maneuverability</i>	Short wheelbase and tight turning radius allow precise positioning in crowded terminals.
<i>Increased Productivity</i>	Built for high-duty, continuous operation; moves more containers per shift than conventional trucks.
<i>Lower Operational Costs</i>	Consumes less fuel and requires less maintenance than over-the-road trucks due to short-haul, stop-and-go design.
<i>Automation Compatibility</i>	Designed for easy integration with automated and autonomous systems to further optimize throughput.

Reliability

The Project will result in well-documented and measurable improvements to the reliability of vital port equipment because it remedies deficiencies. Annual maintenance expenditures of the old current equipment (per unit) versus the estimated annual costs for equivalent new equipment reveals that maintenance costs on the current equipment are rising quickly.

Modernization and Investment in New Equipment (MAINE) Project

Unit	Type	2023 Cost	2024 Cost	2025 Cost	Avg/Yr (2020-25)	New Equip Benchmark/Yr
Kalmar 1053	Reach Stacker	\$19,958	\$59,633	\$111,402	\$45,016	\$40,000
Kalmar 1049	Reach Stacker	\$43,234	\$66,547	\$49,079	\$42,603	\$40,000
Combined RS	Both Reach Stackers	\$63,192	\$126,180	\$160,481	\$87,619	\$80,000
TICO 191	Terminal Tractor	\$5,301	\$5,365	\$12,928	\$11,771	\$26,000
TICO 192	Terminal Tractor	\$1,847	\$4,316	\$696	\$3,901	\$26,000
TICO 193	Terminal Tractor	\$9,247	\$9,127	\$5,487	\$6,081	\$26,000
TICO 194	Terminal Tractor	\$5,472	\$5,201	\$14,815	\$7,368	\$26,000

New equipment benchmarks: reach stacker = \$40,000/yr (3-5% of \$1,000,000 purchase price, per industry standard); terminal tractor = \$26,000/yr avg (MPA estimate).

- Maintenance costs are accelerating sharply. Kalmar 1053: \$19,958 (2023) → \$59,633 (2024) → \$111,402 (2025), a 458 percent increase over two years, driven by a \$65,107 transmission replacement in May 2025. Kalmar 1049: \$43,234 (2023) → \$66,547 (2024).
- Equipment failure types are consistent with older equipment. Recent major repairs include a full transmission replacement (\$65,107), hydraulic leaks (multiple occurrences on both units), NOX/SRC sensor failures, wiring failures, and AC system failures.
- Cumulative six-year maintenance on the two targeted reach stackers exceeds \$525,000. Kalmar 1053: \$270,094; Kalmar 1049: \$255,615. Total: \$525,709 (2020-2025). At new-equipment benchmark costs of \$80,000 per year combined, equivalent new units over the same period would have cost approximately \$480,000, including expected maintenance.

When one or more equipment component is out of service, the downstream effects are costly. The following chart shows the time delay and expense Eimskip faces for one ship when equipment is unavailable. This measurable delay, known as dwell, is the amount of time a ship (or container sitting on a ship) spends sitting idle at a port or terminal before moving to its next destination. Eimskip measures this supply chain efficiency component at the IMT and provided the following data:

The High Cost of Equipment Outages on Container Ship Dwell				
Equipment Type and Amount Out of Service:	1 Reach Stacker	1 Terminal Tractor	2 Reach Stackers	2 Terminal Tractors
Additional Time to Load/Unload One Ship (in hours):	2.8 hours	2.8 Hours	4.25 hours	4.25 hours
Additional Cost to Load/Unload One Ship (in dollars):*	\$3,750	\$3,750	\$5,600	\$5,600

* labor, fuel, port charges

Modernization and Investment in New Equipment (MAINE) Project

When one reach stacker or terminal tractor is unavailable, it takes nearly three additional hours to load or unload a ship. That additional time translates to nearly \$4,000 in dwell cost for just one ship. Additional costs, although difficult to measure, include the dwell cost of each individual container sitting on the ship an additional 2.8 hours awaiting processing at the Terminal, as well as the ‘soft’ cost of the freight arriving later than expected.

Reliability – Reach Stacker

The Maine Port Authority has decided to invest in equipment under this grant opportunity because the need for reliable equipment is so important. The Project is, in part, in response to the IMT’s capital investment plan, which calls for equipment investment. Reach stacker reliability advantages consist of:

<i>Durable Engineering</i>	Built for intensive, consistent performance in demanding port and terminal environments.
<i>Reduced Downtime</i>	Accessible maintenance points allow for faster, more regular servicing.

Reliability – Terminal Tractor

The reliability of the terminal tractors can be grouped into three overarching categories:

<i>Durability & Structural Integrity</i>	
<i>Severe-Duty Construction</i>	Reinforced frames and chassis built to endure constant, heavy-duty use in harsh conditions.
<i>Corrosion Resistance</i>	Specialized coatings and materials resist rust, critical for coastal port environments.
<i>High-Torque Engines</i>	Optimized for low-speed, high-torque work; handles repeated heavy-duty hauling without excessive strain.
<i>Reinforced Drivetrain</i>	Designed to withstand continuous starts and stops.
<i>Minimizing Operational Downtime</i>	
<i>Quicker Coupling</i>	Hydraulic fifth wheel with integrated lifting mechanism eliminates manual cranking of trailer landing gear.
<i>Reduced Maintenance Needs</i>	Less maintenance required than standard over-the-road trucks due to specialized design.
<i>Easy Service Access</i>	Designed with serviceability in mind; enables quick maintenance and repair to minimize downtime.
<i>Stable Handling</i>	Rigid design and low-speed, high-torque stop-and-go capabilities prevent mechanical stress.
<i>Advanced Technology</i>	
<i>Telematics & Remote Diagnostics</i>	Tracks performance, monitors fuel use, and facilitates predictive maintenance to reduce unexpected failures.

Supporting Economic Vitality at the Regional or National Level

Economic and Competitive Advantages of the Port

According to the MaineDOT *Maine Integrated Freight Strategy, 2024*, a short-term policy recommendation for the IMT is to “Market Maine’s maritime and rail assets to North Atlantic and Maine companies competing in those markets to assist those companies but also improve the

economics and use of those assets.”¹⁷ Also according to the *Freight Strategy*, operational recommendations include, “Moving forward, and dependent on the double-stacking improvements to the CSX main line, MaineDOT should collaborate with MPA, CSX, and Eimskip to begin rail based intermodal operations at the IMT using the existing high-quality rail terminal on-site.”¹⁸ Reach stackers will be needed to position containers onto railcars.

The Project supports an improved transportation system that will enhance and stimulate the movement of goods, ensuring a prosperous economy and thriving community. It will enhance the movement of containers, support jobs, help the economy in both urban and rural areas, and increase IMT throughput without the need for geographical expansion, which would be extremely challenging to do because residential areas surround the Terminal. The Project will result in economy of scale cost advantages for the IMT because the cost to move each container will decrease, due to a decrease in repair costs spread over each container, while the volume of containers handled, including those requiring efficient stacking four and five high, will increase. Additionally, by spreading fixed costs (the cost of the Project equipment) over more units (additional containers handled due to efficiencies), future expanded operations at the IMT will reduce average costs, allowing the Terminal to be more competitive.

The Project will help support the economic and competitive advantages the IMT offers:

- 1) **Seaport Location:** The IMT is the closest U.S. port to the Nordic countries, which are the five northern European states (Denmark, Finland, Iceland, Norway, Sweden) and their territories. This reduces the sailing time required to reach the U.S. as compared to other U.S. ports. The distance between Reykjavík, Iceland, where liner service to Portland originates, and Portland is 2,700 miles.
- 2) **Refrigerated Cargo Hub:** The Maine Port Authority has developed a growing successful niche business of handling refrigerated container traffic at the IMT. Its infrastructure includes an on-site cold storage facility.
- 3) **Proximity to Interstate System:** The IMT has value due to its proximity to Interstate 95, which is located on the Primary Highway Freight System (PHFS) of the National Highway Freight Network (NHFN).¹⁹ The IMT is less than two miles from Interstate 295 and five miles from Interstate 95, the primary freight artery in the Northeast. There is no traffic congestion between the facility and the NHFN, a problem numerous other ports suffer from. The Project will also create more efficient access for customers around the IMT, because new terminal tractors will be USDOT-certified, meaning they will be able to travel on public roads, including West Commercial Street to reach the Maine International Cold Storage Facility and the warehouse at Cassidy Point. As a result, it will become more efficient for customers to utilize these facilities.
- 4) **Railroad Access:** The IMT has direct, on-site access to CSX Transportation, the largest Class I rail carrier in the eastern U.S., with connections to all other Class I railroads, together providing service throughout North America.

¹⁷ *Maine Integrated Freight Strategy*, 2024, MaineDOT, page 90, <https://uploads.mainedotpima.com/7025ff95-e44d-4593-9839-c885269cca9c.pdf>

¹⁸ *Maine Integrated Freight Strategy*, 2024, MaineDOT, page 89, <https://uploads.mainedotpima.com/7025ff95-e44d-4593-9839-c885269cca9c.pdf>

¹⁹ National Highway Freight Network Map, 2022, https://ops.fhwa.dot.gov/Freight/infrastructure/nfn/maps/nhfn_map.htm

Modernization and Investment in New Equipment (MAINE) Project

- 5) **Short Sea Shipping:** With reliable equipment, the IMT would have the capacity to serve the short sea shipping market (the maritime transport of goods over relatively short distances, such as through inland waterways). The IMT could also relieve congestion at other ports by handling container traffic they are unable to.
- 6) **Growth-Oriented:** The Maine Port Authority has been instrumental in supporting the growth of Eimskip's trans-Atlantic service by attempting to provide reliable equipment and ensuring there is enough equipment bandwidth to support projected growth. The IMT is unable to grow geographically, therefore, operating the terminal with new, reliable equipment will be the catalyst for increasing productivity and growing.
- 7) **Dredging:** The wharf at the IMT was recently dredged to a depth of 35 feet, consistent with the rest of the bay and river that form the shipping channel. This will allow larger container ships with a deeper draft to call on the IMT, which is expected by 2030 to meet Eimskip's significant projected volume growth.
- 8) **Cold Storage Facility:** The MPA was instrumental in creating a public/private partnership to fund construction of the \$55 million Maine International Cold Storage Facility, which supports the unloading, storage, repackaging, and transport of goods via refrigerated containers. The 106,000-square-foot facility opened in February 2025. The MPA was able to construct the \$55 million facility without the use of Federal funding.

Contribution to Freight Transportation at, Around, and Through the Port

The IMT provides important freight transportation infrastructure in Maine and New England, supporting the movement of goods, including those destined for the region's famous seafood restaurants and tourism economy. Initially, frozen seafood was the primary product shipped through the IMT, however, over the past decade the number and types of commodities handled has expanded. Eimskip imports include alcohol, clothing, frozen and fresh fish, bottled water, vehicles, machinery, chocolate, lamb meat, salt, ferrosilicon, and medical supplies. In exchange, Maine exports ammunition, chemicals, medical and research products, building materials, lobster, scallops, fruit concentrates, blueberries, French fries, other produce and food products, automobiles, motorcycles, cardboard, steel, paper, plastic, and scrap metal. The equipment will help support this wide variety of imports and exports.

Overcoming the Competitive Disadvantage of the Port

The request for equipment funding is the logical next step for the IMT to overcome the disadvantage of its small size and eliminate a potential barrier to entry. Surrounded by historic neighborhoods, seafood docks, and bordered by a busy commercial boulevard, the Terminal is unable to expand geographically. With no available land, the IMT must exercise extreme 'throughput efficiency'. Improving the speed of container processing is the only way to be able to handle more business within the same geographic footprint. The Project will also help the IMT overcome the competitive disadvantage of its challenging winter climate because newer equipment will perform better during harsh Maine winters.

Economic Vitality

According to the MaineDOT *Maine Integrated Freight Strategy, 2024*, "Since Eimskip began weekly service to Maine in 2017, year-over-year growth has exceeded 25%. Substantial growth in demand for the service occurred during the COVID-19 Pandemic, when supply chain challenges in global shipping allowed the nimble operations and strong customer service of the

Modernization and Investment in New Equipment (MAINE) Project

Maine-based operation to out-compete larger competitors.”²⁰

The Project will not only support but also enhance and stimulate the movement of goods throughout the region. It will ensure container processing at the IMT remains fast and efficient and will stimulate additional throughput at the Terminal without the need for large-scale capital investment — in the way of expensive acquisition of land, which isn’t feasible because the surrounding properties include a park, historic neighborhoods, and shops and restaurants.

The IMT provides numerous economic benefits, including as a regional employer. Eimskip employs 28 people in office/management positions and 24 laborers at the IMT. Three full-time employees at the Maine Port Authority help support the IMT: an Executive Director, Operations Manager, and Finance Manager.

The Project will support a variety of previous and current investments the Maine Port Authority has made because the new equipment would support fast and efficient container handling as they are moved throughout port-related facilities. Since 2009, investment to develop the IMT into what it is today has exceeded \$115 million in state and Federal funding, including the \$55 million cold storage facility. A previous PIDP grant award is helping fund expansion of the IMT’s refrigerated container yard, complete with container racks and electrical plugs, all to increase container storage capacity.

Impact on Seafood Economy

The state of Maine and the seafood industry are perpetually linked. Seafood imports topped \$1 billion annually in 2022 for Eimskip, a very solid increase from \$157 million in 2013 when liner service began. Exports have increased to more than \$800 million annually, from less than \$36 million a decade ago.²¹ About 40 percent of the container traffic through the IMT is temperature controlled. Of that, about 20 percent is seafood. Imports include fresh salmon, other varieties of frozen fish, and pelagic fish products (derived from fish that live in the open ocean water column — away from the shore — such as sardines, mackerel, tuna, herring, and anchovies). Even though they are an import, the act of importing salmon helps restaurants throughout the region because often times they are unable to source salmon domestically.

Exports consist of frozen fish, scallops, lobster, and squid. Most the imported seafood is destined for Portland, Brunswick, and the rest of coastal Maine, with some being shipped throughout the U.S. Northeast. The exported seafood is originated in Maine, but more commonly in Rhode Island and Massachusetts.

Maine’s ocean economy contributes nearly \$6.8 billion a year and supports more than 90,000 jobs across dozens of industries. According to the MaineDOT *Maine Integrated Freight Strategy, 2024*, Maine’s Aquaculture industries and products also show positive growth trends. A

²⁰ *Maine Integrated Freight Strategy, 2024*, MaineDOT, page 84, <https://uploads.mainedotpima.com/7025ff95-e44d-4593-9839-c885269cca9c.pdf>

²¹ Island Journal, Island Institute, 2023, <https://www.islandinstitute.org/island-journal/the-ebb-and-flows-of-maines-three-port-strategy/#:~:text=About%2044%2C000%20shipping%20containers%20crossed,the%20surface%2C%E2%80%9D%20he%20says.>

September 2023 study revealed Maine’s fishing and aquaculture industries support almost 18,000 jobs, \$736.9 million of labor income, \$1.1 billion of value added, and \$1.4 billion of gross output to Maine’s economy.²²

Seafood is just one component of the larger frozen food industry. The global frozen foods market size was USD 284.2 billion in 2023 and is projected to grow to USD 363.7 billion in 2028, at a compound annual growth rate (CAGR) of 5.1 percent. Frozen foods have a longer shelf life, the proliferation of e-commerce allows consumers to access frozen foods with ease, globalization allows consumers to easily access an extensive range of international cuisine, the perceptions of frozen foods being safer from contamination risk.²³

Leveraging Federal Funding to Attract Non-Federal Sources of Infrastructure Investment

The Project will leverage investments already made by Eimskip, including the relocation of their North American headquarters from Norfolk, Virginia, to Portland. Given the consistency of the shipping route and reliability of the service, revenue, jobs, and business opportunities for other entities are being generated. The Project match funding is helping leverage Federal funding.

A recommendation of the MaineDOT *Integrated Freight Strategy, 2024*, is to make transportation investments using both public and private funds, “The Maine transportation system will require significant investment of public and private dollars to maintain existing infrastructure and improve freight connectivity and mobility. These investments will fuel the Maine economy by improving industry competitiveness and productivity, creating jobs, and reducing economic losses due to time delays and excess fuel consumption.”²⁴

Port Resilience

As the IMT grows, Maine Port Authority officials recognize the critical role the IMT has as an essential operation. They have worked to anticipate, and prepare for, any operational disruptions caused by natural or manmade hazards. The MPA is working alongside the U.S. CBP to reduce manmade hazard risks. They will construct and implement a fixed radiation scanner at the IMT. As container volume has increased, along with the variety of commodities handled within those containers, the partnership between CBP and MPA expanded. The scanner will be completed sometime in 2027 and the reliability of the terminal tractors will become even more critical, as they will be tasked with constantly moving containers through the radiation scanner.

The IMT recently completed a dredging maintenance project to ensure the ship berth maintains a depth of 35 feet. This will decrease the threat of a service disruption.

²² *Maine Integrated Freight Strategy, 2024*, MaineDOT, page 64, <https://uploads.mainedotpima.com/7025ff95-e44d-4593-9839-c885269ccaafc.pdf>

²³ *Frozen Foods Market by Product, Consumption, Type, Distribution Channel Region – Global Forecast to 2028*, Markets and Markets, 2022, https://www.marketsandmarkets.com/Market-Reports/global-frozen-and-convenience-food-market-advanced-technologies-and-global-market-130.html#tab_default_1

²⁴ *Maine Integrated Freight Strategy, 2024*, MaineDOT, page 85, <https://uploads.mainedotpima.com/7025ff95-e44d-4593-9839-c885269ccaafc.pdf>

SECTION V: ADDITIONAL CONSIDERATIONS

Supporting National Multimodal Freight Goals

The IMT is the closest port to U.S. allies in the Nordic region, including Denmark, Finland, Iceland, Norway, and Sweden. This results in the quickest sailing time from the region to the U.S., as compared to other U.S. ports of call. The distance between Reykjavík, Iceland, where liner service to Portland begins, and Portland itself is 2,700 miles.

The Project supports the *2026 National Freight Strategic Plan*, which outlines the U.S. DOT's strategic goals, including *A Safe Freight System* and *An Efficient Freight System*:

- ✓ **Safety:** The Project will help reduce or eliminate serious injuries and fatalities of the freight system by accelerating deployment of proven safety technologies in freight operations and infrastructure: the reach stackers will have load moment control, an anti-toppling system, stabilizers, camera systems, ultrasonic sensors, speed limitation, a pedestrian detection system, and emergency stop features. Terminal Tractors will have good visibility, high-strength steel cabs with rollover protection, a safe coupling system, visibility improvements over current models, and route optimization features.
- ✓ **Efficiency:** The Project will help improve system reliability, better utilize existing freight infrastructure through improved supply chain visibility, and promote integrated, multimodal freight planning and investment by enhancing the reliable movement of containers, supporting direct and indirect port-related jobs, helping the economy in urban and rural areas, and increasing IMT throughput without the need for the facility to expand its geographic footprint.

Project Readiness

Technical Capacity

MaineDOT is an accomplished, experienced, and responsible recipient of previous successful TIGER, FASTLANE, INFRA, CRISI, PIDP, RAISE, and BUILD grants and MARAD can rely on the Department to fully fund and commence the Project well in advance of the obligation deadline and to complete the Project well in advance of the expenditure deadline without risk.

MaineDOT adheres to Administrative and National Policy Requirements during all phases of all projects. The Department's Federal grant and formula funds experience includes managing numerous infrastructure projects and associated Federal requirements and regulations, such as compliance with Buy America, the Americans with Disabilities Act, the Davis Bacon Act, and the Uniform Relocation Assistance and Real Property Acquisition Act. MaineDOT follows all applicable domestic preference laws including Executive Order 14005, *Ensuring the Future Is Made in All of America by All of America's Workers* (86 FR 7475) and ensures the use of products and materials produced in the United States for all infrastructure projects. As part of the grant agreement, MaineDOT will provide documentation of ongoing compliance with the following Executive Orders:

- Executive Order 14173 – *Ending Illegal Discrimination and Restoring Merit-Based Opportunity*
- Executive Order 14151 – *Ending Radical and Wasteful Government DEI Programs and Preferencing*

Modernization and Investment in New Equipment (MAINE) Project

- Executive Order 14168 – *Defending Women From Gender Ideology Extremism and Restoring Biological Truth to the Federal Government*
- Executive Order 14149 – *Restoring Freedom of Speech and Ending Federal Censorship*
- Executive Order 14154 – *Unleashing American Energy*

Numerous letters of support accompany the application. The Project has received the support of a diverse group of elected officials and stakeholders who understand the significant benefits it will generate. MaineDOT will post all support letters on the Department website at <https://www.maine.gov/dot/about/funding/grants/pidp>. Additional letters will be posted to the website as they are received.

NEPA Process & Permitting Risk

The Project should be classified as a Categorical Exclusion consistent with the Department of Transportation's Order 5610.1D, *Procedures for Considering Environmental Impacts*.²⁵ MaineDOT is committed to being stewards of the environment and natural resources and believes that sustainability of habitats, ecosystems, and transportation infrastructure can occur in concert rather than in conflict. To that end, MaineDOT will employ its Environmental Office to ensure coordination with state and federal natural resource agencies while weighing aspects of a proposed project. The Project involves the purchase, delivery, and commissioning of port equipment and does not involve any construction elements or in-water work. The Project is likely to be classified as a Categorical Exclusion as described in Maritime Administrative Order 600-1, *Procedures for Considering Environmental Impacts*. Appendix 1 of this document identifies Maritime Administration Actions which are not normally major actions significantly affecting the Environment. This project as proposed could be considered under Item 4: "Reconstruction, modification, modernization, replacement, repair, and maintenance...of equipment facilities or structures which do not change substantially the existing character of the equipment/facility/structure". MaineDOT will work with MARAD's environmental office to ensure compliance with NEPA. Should any issues arise, MaineDOT will work with the respective agencies to quickly resolve them.

Historic and Archaeological

MaineDOT will work with MARAD to complete the Section 106 process for all project elements delivered under the grant. This project will occupy existing developed area within the IMT, and historic or archaeological impacts are anticipated.

Endangered Species Act (ESA) and Essential Fisheries Habitat (EFH)

MaineDOT will complete consultation with U.S. Fish and Wildlife Service and the National Marine Fisheries Service to comply with ESA and EFH avoidance or minimization measures.

Section 404 Clean Water Act Permit/Section 10 of the Rivers and Harbors Act (U.S. Army Corps of Engineers)

This project does not include any impacts to waters of the United States.

²⁵ U.S. Department of Transportation, DOT Order 5610.1D, page 51, https://www.transportation.gov/sites/dot.gov/files/2025-07/DOT_Order_5610.1D_OST-P-250627-001_508_Compliant.pdf

Modernization and Investment in New Equipment (MAINE) Project

Stormwater

This project does not include any new impervious area or impacts to existing stormwater management systems.

Floodway/Floodplains

The project will not impact any designated floodway or floodplain.

Proposed Schedule

MaineDOT will be able to complete equipment procurement and Project expenditure by November 2028, well in advance of the obligation deadline of September 30, 2030.

Project Milestone	Begin Date	End Date
MARAD Project Selection	-	October 2026
NEPA Process	November 2026	June 2027
Grant Agreement	November 2026	July 2027
Advertise RFP	August 2027	September 2027
Vendor Selection	October 2027	October 2027
Vendor Contract Executed	November 2027	November 2027
Equipment Delivery and Commissioning	November 2028	November 2028
Final Performance Report	December 2028	February 2029
Project Closeout	March 2029	March 2029

Cost Data Determination

To determine cost data, MPA researched an RFP (of two reach stackers) for a Port in Texas.²⁶ Using this number and knowing what Kalmar reach stackers would cost today, MPA was able to determine a probable estimate of what a BABA-compliant reach stacker would cost. For terminal tractors, prices are public knowledge because prices are available.

Inclusion in State Planning Documentation

The importance of investing in port equipment is highlighted in the *2024 Maine Integrated Freight Strategy*, “Continue to invest in maintenance and upgrades for Maine’s ports | In particular, ensure that port equipment is maintained and upgraded as needed, including electrification in the short-to-medium-term.”²⁷

The Project is also in the internal planning document *Portland International Marine Terminal Conceptual Planning & Cost Estimates Document*, February 2026, currently in draft form:

1. 1-3 New Reach Stackers (2):
 - a. There are currently four reach stackers that are used at the IMT, with two reach stackers having high numbers of operating hours (approximately 14,000 hours and 10,500 hours).
 - b. The reach stackers at the IMT see high usage because there are only four of them. The small footprint of the IMT forces more wear and tear on the equipment due to

²⁶ Texas Bids, https://texasbids.net/bid-result/two_2_reach_stackers_rfp_-13620937

²⁷ 2024 Maine Integrated Freight Strategy, page 89, <https://uploads.mainedotpima.com/7025ff95-e44d-4593-9839-c885269ccaafc.pdf>

Modernization and Investment in New Equipment (MAINE) Project

frequent stopping, turning, and backing up within the confines of the facility. The harsh winter weather conditions are also tough on the equipment.

- c. Costs for the new reach stackers were provided by the MPA. The current plan is to replace the two reach stackers with the highest operating hours and strategically move existing reach stackers to other ports or they could potentially be returned to the manufacturer for credit.
2. 1-4 New Yard Trucks (2):
- a. There are currently four yard trucks that are used at the IMT. These new trucks would be DOT certified so they could travel on public streets to reach nearby port facilities.
 - b. Similar to the reach stackers, the two trucks with the highest amount of hours worked would be replaced first, and then the other yard trucks would be replaced in the following years.”

Risks and Mitigations

Project Risks	Mitigations
Limited number of domestic manufacturing suppliers.	Ensure production request is in manufacturer's lineup as early as possible – avoid backlog.
Misaligned Specifications: Purchasing equipment that does not perfectly align with specific needs.	Ensure communication, in writing, regarding equipment specs and features. Include warranty and downtime expectations, safety information, and lifting capacities.
Operational Resilience: Ensure maintenance requirements are clearly understood.	Ensure a written understanding of maintenance cycle requirements for equipment reliability.

Performance Measures

Maritime Measure	Unit Measurement	Measurement Period	Measurement Frequency	PIDP Program Objectives	Definition
Freight Movements	TEUs	5 years following Project completion	Quarterly	Economic Competitiveness	Number of TEU movements through IMT
Reach Stacker Downtime	Hours	5 years following Project completion	Quarterly	Economic Competitiveness	The number of hours the reach stackers are inoperable due to unscheduled maintenance.
Terminal Tractor Downtime	Hours	5 years following Project completion	Quarterly	Economic Competitiveness	The number of hours the terminal tractors are inoperable due to unscheduled maintenance.

Innovative Technology

Fostering *Innovation* is a primary Project purpose. The reach stackers have innovative safety features:

- Load Moment Control (LMC): Monitors the load weight, boom angle, and extension distance, and automatically restricts movement if the load exceeds capacity.

Modernization and Investment in New Equipment (MAINE) Project

- Anti-Toppling Systems: Prevents the machine from tipping over during heavy lifting or moving.
- Stabilizers: Front-mounted stabilizers can be used to increase stability while the reach stacker is under second and third-rail operations – which refers to the reach stacker’s ability to reach from its current position over a string of railroad flatcars to additional flatcars positioned two or three tracks away.
- Camera Systems: Rear-view, boom-mounted, and spreader cameras to provide real-time, 360-degree visibility and reduce blind spots.
- Ultrasonic Sensors: Measure distances to containers to assist with precise positioning and prevent collisions.

SECTION VI: STATUTORY DETERMINATIONS

The Project as a whole, and each independent component, satisfies the statutory requirements enumerated in 46 U.S.C. 54301(a)(6)(A).

1. *The project improves the safety, efficiency, or reliability of the movement of goods through a port or intermodal connection to the port.*

The Project will greatly improve the safety, efficiency, and reliability of the movement of goods through the Port. It improves safety by employing new equipment with modern safety features. Efficiency is also improved by increasing Terminal throughput. Reliability will improve because the new equipment will spend less time suffering breakdowns.

The Project will improve the intermodal connections to the Terminal because the reach stackers will be able to place a container on a chassis, allowing the container to travel on roadways. They will also be able to place containers onto railroad flatcars, allowing rail transportation to be an efficient alternative for containers moving to and from the Terminal. The Project will improve the operational efficiency of the Terminal by augmenting the reliability of reach stackers and terminal tractors to move containers efficiently throughout the Terminal and down the street to the warehouse facility.

2. *The Project is cost effective.*

This is not applicable because the Project is a **Small Project at a Small Port**.

3. *The eligible applicant has the authority to carry out the project.*

The IMT is a coastal seaport subject to the U.S. Army Corps of Engineers regulatory jurisdiction for oceanic and coastal waters under 33 CFR. 329.12 and is capable of receiving oceangoing vessels with a draft of 32 feet. The Maine Port Authority is a state quasi-governmental agency enabled by the Maine Legislature under Title 23, §4420: Purpose.²⁸ The MPA has the authority to own, operate, and maintain grant-funded equipment. The MPA

²⁸ Maine Revised Statutes, Title 23: TRANSPORTATION, Part 6: WATERBORNE TRANSPORTATION, Chapter 412: WATERBORNE TRANSPORTATION, Subchapter 2: MAINE PORT AUTHORITY, <https://legislature.maine.gov/legis/statutes/23/title23sec4420.html>

Modernization and Investment in New Equipment (MAINE) Project

owns the 21-acre IMT parcel and develops capital projects in partnership with MaineDOT through its *Three-Year Work Plan*.²⁹ MPA owns port assets and equipment throughout the state.

4. *The eligible applicant has sufficient funding available to meet the matching requirements.*

MaineDOT has Project match funds available and committed and the funds will be provided. Funding comes from the state budget using non-Federal funds. A letter of funding commitment accompanies the application.

5. *The project will be completed without unreasonable delay.*

MaineDOT will be able to complete equipment procurement and Project expenditure by June 2028, well in advance of the obligation deadline of September 30, 2030.

6. *The project cannot be easily and efficiently completed without Federal funding or financial assistance available to the project sponsor.*

Without grant funding, the purchase of new equipment is unlikely to occur and the IMT will be unable to deliver efficient and reliable service. The lack of funding would mean that the MPA would require several more years of capital raise to allocate the funds necessary to purchase the equipment. That would result in new and existing container traffic being diverted to other Northeast ports outside of Maine. Eimskip, as well as potential new IMT customers, would view the setback as a lack of commitment toward growth at the Terminal.

- 1) *How would the project scope be affected if PIDP (or other Federal) funds were not received?*

The equipment most likely would not be purchased.

- 2) *How would the project schedule be affected if PIDP (or other Federal) funds were not received?*

The equipment most likely would not be purchased.

- 3) *How would the project cost be affected if PIDP (or other Federal) funds were not received?*

The likelihood of an increase in the cost of the equipment would be high if purchased years from now due to inflation.

²⁹ *MaineDOT's Three-Year Work Plan, 2026 Edition*,
<https://storymaps.arcgis.com/stories/ac0941dc1204417ab1869d9585316d77>

LETTERS OF SUPPORT

Letters from numerous supporters accompany the application. The Project has received the support of a diverse group of elected officials and stakeholders who understand the significant benefits the Project will generate. The Maine Department of Transportation (MaineDOT) will post all letters of support at <https://www.maine.gov/dot/about/funding/grants/pidp> with additional letters posted to the site as they are received. The list of supporters includes:

Elected Officials:

Senator Susan Collins
Senator Angus King
Representative Chellie Pingree

Additional Supporters:

Eimskip
Maine Port Authority
Portland Longshoremen's Benevolent Society
City of Portland
Portland Chamber of Commerce
Greater Portland Council of Governments (GPCOG)
Maine Better Transportation Association (MBTA)
Maine International Trade Center (MITC)

Modernization and Investment in New Equipment (MAINE) Project

ATTACHMENTS

Attachment A	Project Map
Attachment B	Match Commitment Letter
Attachment C	Letters of Support
Attachment D	Equipment Information