

APPENDIX

**FUNDING
OPPORTUNITIES
FOR PROJECT
IMPLEMENTATION**

FUNDING OPPORTUNITIES FOR PROJECT IMPLEMENTATION

Grant Program	Leading Agency	Program Purpose & Eligibility	Opportunities	Challenges	Sample Dates (Renew Annually)
The Building Resilient Infrastructure and Communities (BRIC)	Federal Emergency Management Agency (FEMA)	The BRIC program seeks to move away from responsive disaster spending and towards proactive resiliency investments. The program supports innovative projects that involve partnerships and provide multiple benefits to communities. Eligible projects include those that focus on infrastructure, benefit disadvantaged communities, use nature-based solutions, enhance climate resilience, and adopt hazard resistant building codes.	BRIC is the FEMA grant that most closely aligns with the Dorchester Waterfront project and its timeline. Large scale funding sufficient for construction and there is a 75% federal cost share. There is more time to spend the funds than many other grants.	Would require a Benefit-Cost Analysis (BCA), Wetland Delineation, CLOMR, environmental and historical resources due diligence, and potentially additional studies. Extensive documentation requirements, long-lead times, and cost to pursue and obtain the funding in hand. Will likely require demonstration that FEMA flood zones will be reduced by the project, which will be complex due to transportation infrastructure serving as flood barrier.	Opens: Sept. 30, 2022 Closes: Jan. 27, 2023, at 3 p.m. ET
Municipal Vulnerability Preparedness (MVP) Action Grant (FY 25)	Massachusetts Executive Office of Energy and Environmental Affairs (EEA)	The MVP Action Grant is a financial aid for Massachusetts communities that aim to mitigate the effects of climate change. To qualify for the grant, potential recipients should first be certified as an MVP community. The funding can be utilized to conduct vulnerability assessments and establish resiliency plans.	Project aligns with the state goals related to providing community benefits and climate change adaptation investments in EJ communities. Less cumbersome application process, due diligence requirements, and procurement restrictions (than FEMA). Weighted towards projects that benefit EJ communities. Opportunity for two fiscal year grants, providing continuity in the design and permitting process.	Funding limits may be a bit on the lower side to cover all construction. Money must be spent in a shorter timeframe (1 or 2 fiscal years, with procurement approximately 18 months). May not be able to fund elements that are in regulatory gray areas. Would require wetlands delineation and pre-application with MassDEP, CZM, and DCR regulators to identify areas of consensus around what elements are permissible.	FY25 Grant Round anticipated in Spring 2024.
Coastal Resilience Grant Program (FY 24)	Massachusetts Office of Coastal Zone Management (CZM)	The grant for Coastal Resilience provides financial aid for projects that strive to improve public knowledge regarding coastal storms and climate change. It also covers activities that involve vulnerability assessment, planning adaptations, redesigning facilities and infrastructure that are at risk, and restoring shorelines. The program evaluates proposals that fall into five categories, which consist of comprehensive vulnerability assessments and outreach to the public.	The 2 million dollars in funding could develop the design to address the DCR and permitting concerns. Less cumbersome application process, due diligence requirements, and procurement restrictions (than FEMA). Weighted towards projects that benefit EJ communities. Opportunity for two fiscal year grants, providing continuity in the design and permitting process.	The grant offers 2 million dollars, which would be sufficient to cover design phases and permitting, but not construction. Favors projects with clear environmental permitting pathways. May not be able to fund elements that are in regulatory gray areas, and money may also need to be spent in a shorter timeframe. Would require wetlands delineation and pre-application with MassDEP, CZM, and DCR regulators to identify areas of consensus around what elements are permissible.	FY24 Grant Applications due on July 11, 2023.
National Coastal Resilience Fund (NCRF)	National Fish and Wildlife Foundation (NFWF)	The National Coastal Resilience Fund (NCRF) is a program that aims to protect coastal communities and enhance habitats for fish and wildlife by restoring and strengthening natural infrastructure. The program supports projects that demonstrate dual benefits to both communities and habitats, and prioritize nature-based solutions, community resilience, and fish and wildlife benefits. Additionally, priority is given to projects that have a positive impact on underserved communities, engage community members in project design and implementation, and promote sustainability and long-term maintenance.	Since the project is partly within the bounds of the Area of Critical Environmental Concern (ACEC) it would have a competitive advantage. The reduction of risk for human communities is also part of the grant criteria. DCR and the City of Boston are eligible to receive these grants, providing flexibility for different implementation scenarios.	There is some concern whether the ecological restoration aspects of the project are compelling enough for NFWF. NFWF might fund the ecological portion of the site from EL. 14 down, but there may be need to look into additional funding for upland areas. The ecological benefits may be more compelling as part of a broader suite of actions to improve resilience in the Neponset River Estuary.	Pre-Proposal: Mar. 2, 2023 Closes: Jun. 28, 2023
Promoting Resilient Operations for Transformative, Efficient, and Cost-saving Transportation Program (PROTECT)	U.S. Department of Transportation (USDOT)	The PROTECT Grant program offers financial support to ensure the resiliency of transportation systems against climate change, flooding, and extreme weather events. It covers eligible activities, such as resilience planning, strengthening evacuation routes, and enhancing the resilience of transportation infrastructure, specifically for highway, transit, and certain port projects.	The project protects the Southeast Expressway, Morrissey Boulevard, and MBTA assets, so would likely qualify.	More rigorous study needed in the design to address transportation vulnerabilities. Would require a Benefit-Cost Analysis (BCA)	Opens: Apr. 21, 2023 Closes: Aug. 18, 2023

Table 1: Funding program descriptions, challenges and opportunities

COST ESTIMATE

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Cost estimation for this project is based on similar projects completed in the greater Boston, Massachusetts area, unit costs provided in the Boston BMP Manual, and MassDOT weighted bid prices adjusted to fit the scope and location of this project.

Dorchester Resiliency Project						6/28/2023
Base Assumptions						
Utilities and Appurtenances						
Existing water main to be relaid to follow grade of new main						
Existing Drainage and sewer manhole structures to be adjusted to new grade						
	Unit	Quantity/LF	Unit Price	Cost/LF	Notes	
Stabilization and Demolition						\$ 523,220.30
Erosion Controls	LF	2020	\$ 30.00	\$ 60,600.00		
Clearing and Grubbing	Acre	1	\$ 45,000.00	\$ 45,000.00		
Stump Removed	EA	75	\$ 350.00	\$ 26,250.00		
Temporary Construction Entrance	EA	2	\$ 5,000.00	\$ 10,000.00		
Tree Protection	EA	51	\$ 200.00	\$ 10,200.00		
Remove and Dispose - Steel Guardrail	LF	600	\$ 10.00	\$ 6,000.00		
Remove and Dispose - Wooden Guardrail	LF	260	\$ 10.00	\$ 2,600.00		
Remove and Dispose - Stone Block	LF	744	\$ 15.00	\$ 11,160.00		
Remove and Dispose - Concrete Walkways	SY	1224	\$ 12.00	\$ 14,693.33		
Remove and Dispose - Asphalt Walkways	SY	3962	\$ 10.00	\$ 39,616.67		
Remove and Dispose - Existing Asphalt Sportscourts	SY	2206	\$ 12.00	\$ 26,466.67		
Remove and Stack - Vertical Granite Curbing	LF	4021	\$ 8.00	\$ 32,168.00		
Reclaimed pavement for base course and/or Sub Base	SY	10473	\$ 15.00	\$ 157,091.67	Roadway and Parking lot area	
Misc Park Demolition	LS	1	\$ 80,000.00	\$ 80,000.00	Pavillion structures, fencing, utilities	
Public Utilities						\$ 1,897,289
Drainage Piping	Linear Foot	2000	\$ 170.00	\$ 340,000.00	12"-24" RCP	
Catch Basin	Each	14	\$ 5,000.00	\$ 70,000.00	includes frame/grate, adjustments, hood, etc	
Standard Manhole	Each	15	\$ 7,500.00	\$ 112,500.00	includes frame/cover, invert, etc	
Tide Gate (Backflow Preventer)	Each	2	\$ 7,500.00	\$ 15,000.00		
BioRetention Pond	SF	17762	\$ 34.50	\$ 612,789.00	includes plantings and warranty	
Water main	Linear Foot	2000	\$ 250.00	\$ 500,000.00	includes valves connections, flushing and testing	
Fire Hydrants	Each	3	\$ 9,000.00	\$ 27,000.00	includes hydrant, gate valve, and appurtenances	
Adjusting existing structures to grade	LS	1	\$ 20,000.00	\$ 20,000.00		
Utility Relocation (Elect/CATV/Comm)	LS	1	\$ 200,000.00	\$ 200,000.00		

Table 2: Initial cost estimate

Site Utilities						\$ 500,000
Site Electrical and lighting	AL	1	\$ 250,000.00	\$ 250,000.00		
Site appurtenances	AL	1	\$ 250,000.00	\$ 250,000.00	Picnic Benches, seating, trash cans, etc	
EarthWork						\$ 2,656,523
Strip and Stockpile topsoil (6" Depth)	SY	14915	\$ 5.00	\$ 74,573.33		
Imported Clean fill	CY	35000	\$ 50.00	\$ 1,750,000.00	Includes material, trucking and placing	
Clay embankment core	CY	50	\$ 700.00	\$ 35,000.00	For length of Flood wall	
Topsoil under Planting Areas (6")	CY	2701	\$ 65.00	\$ 175,544.54		
Beach Sand for beach and Dunes	CY	7300	\$ 65.00	\$ 474,500.00		
Flood Wall	CY	93	\$ 700.00	\$ 65,268.00	2'wide wall, 6' tall on 2'x4' footing = 0.74CY	
Seepage Cutoff Wall - driven sheets	Lbs	40819	\$ 2.00	\$ 81,637.50	For length of flood wall	
Roadway Building						\$ 976,919
Fine Grading and compaction - Roadway	SY	7196	\$ 5.00	\$ 35,979.44		
12" Gravel Base - Roadway	CY	2399	\$ 60.00	\$ 143,917.78		
4" Asphalt Binder Course	TON	1583	\$ 150.00	\$ 237,464.33	7167sy x 4" x 0.055 = Tonnage	
2" Asphalt Top course	TON	792	\$ 150.00	\$ 118,732.17	7167sy x 2" x 0.055 = Tonnage	
Vertical Granite Curb - resetting existing	LF	3810	\$ 35.00	\$ 133,350.00		
Retaining Wall	CY	362	\$ 800.00	\$ 289,600.00		
Guard Rail on top of wall	LF	275	\$ 65.00	\$ 17,875.00		
Site surfacing						\$ 2,155,183
Fine Grading and compaction - Parking	SY	1463	\$ 5.00	\$ 7,314.44		
8" Gravel Base - Parking	CY	327	\$ 60.00	\$ 19,602.71		
3" Asphalt Binder Course	TON	241	\$ 150.00	\$ 36,206.50		
1.5" Asphalt Top course	TON	121	\$ 150.00	\$ 18,103.25		
Vertical Granite Curb - new	LF	883	\$ 75.00	\$ 66,225.00		
Fine Grading and compaction - sidewalk	SY	5304	\$ 7.00	\$ 37,130.33	Harborwalk & Exposed Agg Ped Conc	
8" Gravel Base - walkways	CY	327	\$ 40.00	\$ 13,068.47		
Boardwalk on Grade	SY	177	\$ 180.00	\$ 31,900.00		
Concrete Sidewalks - Harborwalk	SY	2778	\$ 145.00	\$ 402,761.67	120\$/SY is MassDOT median - cement conc sidewalk	
Concrete Sidewalks - Exposed Aggregate	SY	2970	\$ 135.00	\$ 400,920.00		
Concrete - CIP Pedestrian Concrete	SY	4082	\$ 85.00	\$ 346,951.11		
Basketball Court	EA	1	\$ 165,000.00	\$ 165,000.00	concrete base sportscourt, including appurtenances	
Tennis Courts	EA	2	\$ 185,000.00	\$ 370,000.00	concrete base sportscourt, including appurtenances	
Pickleball Courts	EA	2	\$ 120,000.00	\$ 240,000.00	concrete base sportscourt, including appurtenances	
Landscaping and plantings						\$ 1,751,136
Trees	AL	1	\$ 185,000.00	\$ 185,000.00		
Shrubs	AL	1	\$ 485,000.00	\$ 485,000.00		
Coastal Dune cover	SF	23515	\$ 10.00	\$ 235,150.00		
Maritime Forest cover	SF	7181	\$ 16.00	\$ 114,896.00		
High Marsh Mix	SF	38668	\$ 12.00	\$ 464,016.00		
Low Marsh Mix	SF	16050	\$ 12.00	\$ 192,600.00		
Lawn Area	SF	37237	\$ 2.00	\$ 74,474.00		
Sub-Total						\$ 10,460,271
15% Contingency -						\$ 1,569,041
Total						\$ 12,029,312