

# Cape Cod Maritime Museum



## Town of Barnstable ADA Transition Plan

August 2021



Institute for Human Centered Design

200 Portland Street, Boston, MA 02114  
www.IHCDesign.org • info@IHCDesign.org  
617-695-1225 voice/ tty

### Background

The Cape Cod Maritime Museum is located at 135 South Street in Hyannis. Programs at the museum include craft night, wine painting night, wine and cheese lectures, exhibit openings and summer camp for Grades 4 through 7. The museum - including the patio - can also be rented for weddings, retirement parties, etc.

The museum is a two-story building with a first floor and a basement connected by an interior staircase. There are two (2) entrances to the building located on the north side; the accessible entrance is accessed via a ramp (northeast side). There are two (2) additional entrances/exits to the museum located in the basement (south side).

On the first floor the museum features a large collection of historic vessels, model ships and maritime art, a gift shop, and the director and administrative offices. There is also a single-user toilet room near the accessible entrance (1<sup>st</sup> floor) and an additional single-user toilet room near the historic exhibit area. This toilet room is intended for employee only but can be used by members of the public when the space is rented out. A classroom and a boat workshop are located in the basement. The parking lots are located on the north and south sides of the building. The parking lot located on the north side has 11 parking spaces including two (2) accessible spaces. The parking lot located on the south side has five (5) parking spaces – there are no accessible spaces at this parking lot. A patio with picnic tables and exhibits is also located on the south side of the building.

The historic watercraft of Cape Cod is a self-standing single-level building near the boat workshop located on the southeast of the museum.

### Key Accessibility Issues

#### Exterior and Interior routes

Accessibility issues include lack of a fully compliant exterior ramp and lack of an interior accessible route to the basement level of the museum. As a result, people with some types of disability who would like to access the basement need to drive to the back of the building. Other accessibility issues include lack of a compliant surface at the patio and exhibit artifacts that protrude into the interior circulation path.

#### Entrance

Accessibility issues include lack of maneuvering clearance at the accessible entrance (northeast side).

#### Signage

Accessibility issues include lack of directional signs at the inaccessible entrance and toilet room directing people to the accessible entrance and toilet room, lack of tactile egress signage (raised character and braille) and lack of an exit sign with the illuminated International Symbol of Accessibility (ISA) at the accessible exits. Another accessibility issue is the fact that a few signs are not maintained in operable working condition due to the fact that they are written with clay and are fading.

#### Toilet rooms

Accessibility issues include lack of a compliant single-user toilet room (toilet room located near the historic exhibit area). Accessibility issues at the toilet room located near the accessible entrance include a flush control not located on the open/transfer side of the toilet, lack of the rear and side grab bars, lack of the 42" minimum distance between the toilet and the nearest fixture and a mirror mounted higher than the maximum allowed.

#### **Additional Accessibility Issues**

- Lack of an accessible parking space (south parking lot) and identification signs mounted lower than the minimum allowed (north parking lot).
- Lack of compliant door hardware.
- Lack of compliant thresholds.

## Cape Cod Maritime Museum

- Lack of handrail extension (basement level).
- Lack of a compliant sink in the boat workshop room.
- Lack of an accessible picnic table.

**\*Note:** While IHCD's scope of work did not include a full review of the exhibitions, there are accessibility issues at the museum that have been documented. The content of the entire exhibition has to be made accessible for people who are blind or have low vision by ways of auxiliary aids or services. A full review of exhibits is desirable. As a reference for accessible exhibitions, please check the Smithsonian Guidelines for Accessible Exhibition Design:

[www.sifacilities.si.edu/sites/default/files/Files/Accessibility/accessible-exhibition-design1.pdf](http://www.sifacilities.si.edu/sites/default/files/Files/Accessibility/accessible-exhibition-design1.pdf)

### Order of Magnitude Cost Estimates

- Provide an automatic door opener (northeast entrance): \$3,060
- Provide a van accessible parking space (south parking lot): \$1,850
- Renovate single-user toilet room: \$1,528
- Provide compliant signage (designation, egress and directional): \$3,930
- Provide compliant doors (hardware and thresholds): \$3,436
- Miscellaneous corrective actions (sink, accessible work surface, accessible picnic table, etc.): \$4,990

**Total: \$18,794\***






**\*Note:** Cost to provide a fully compliant ramp is not included. Cost to provide cane-detectable barriers in the exhibit area is not included. Cost to provide a compliant surface at the patio area is not included.

### Best Practice and Inclusive Design






Best practice and inclusive design recommendations include elements that are not required in the standards but may create enhanced experiences for all users.

- Recommend providing a permanent sign with the same information at the entrance/exit to the boat workshop and a directional sign to the historic watercraft exhibit.
- Recommend adding contrasting strips at the edge of each step at the interior and exterior stairs.
- Recommend providing a fully-secured textured floor mat at the top of the stairs leading to the basement.
- Recommend relocating the bench (fine arts area).
- Recommended providing a gate surface within 10" of the ground on the push side of the gate (south side).






**Town of Barnstable  
Cape Cod Maritime Museum**

ID	Location	Floor	Room	Element	Type	Photo	Issues	Current Measure	Recommendations	Quantity	Price	Cost Estimation
<b>Approach and Entrance</b>												
<b>Exterior Access Route</b>												
1	Outdoor Seating, Outside Classroom	Ext.		Exterior Access Route	Exterior		Level changes > 1/4"	1.25"	Alter change in level to be 1/4" high max.	1	-	\$0
2	Outdoor Seating, Outside Classroom	Ext.		Exterior Access Route	Exterior		Surface is not stable, firm, and slip-resistant	-	Replace with a surface that is stable, firm and slip resistant.	1	-	\$0
3	Path by Rear Gate Entrance/ Exit at Rear Parking	Ext.		Exterior Access Route	Walkway		Route not maintained in operable working condition	-	Ensure the accessible route is maintained in operable working condition.	1	-	\$0
<b>Off-Street Parking Lot or Garage</b>												
4	Rear Gate Entrance/ Exit at Rear Parking	Ext.		Off-Street Parking Lot or Garage	Visitor		Total # of designated van accessible spaces	-	Provide a van accessible spaces that is 96" wide with a marked access aisle that is at least 96" wide. Provide a sign with the bottom of the sign 60" min. above the ground and the top 96" max. above the ground. Add the designation "Van Accessible" to the sign.	1	1850	\$1850
5	Accessible Parking	Ext.		Off-Street Parking Lot or Garage	Visitor		Sign bottom < 60" above finished grade	30"	Locate sign with the bottom of the sign 60" above the ground.	2	Labor	\$0






**Town of Barnstable  
Cape Cod Maritime Museum**

ID	Location	Floor	Room	Element	Type	Photo	Issues	Current Measure	Recommendations	Quantity	Price	Cost Estimation
<b>Exterior Ramp</b>												
6	Accessible Entrance/Exit	Ext.		Exterior Ramp	N/A		No lower handrail 18"-20" high provided Ramp < 48" wide Running slope > 1:12 (8.3%)	25.5" 38" 10.4%	Provide a lower handrail between 18" to 20" high. Widen ramp so that the clear width is 48" min. Reduce running slope to be no steeper than 1:12 (8.3%).  Note: Repair to this ramp might be technically infeasible.	1	-	\$0
<b>Exterior Stair</b>												
7	Main Entrance/Exit	1		Exterior Stair	N/A		Handrails do not extend 12" from stair	-	Top: Ensure handrails extend horizontally above the landing for 12" min. beginning above the first riser nosing. Bottom: Ensure that the sloped bottom extension extends one tread depth minimum beyond last riser nosing in same direction as stair flight.	2	142	\$284
<b>Entrance</b>												
8	Main Entrance/Exit	1		Entrance	Main Entrance				Relocate door bell or keep the right leaf close and the left one open.	1	Labor	\$0
9	Main Entrance/Exit	1		Entrance	Main Entrance		Entrance not on an accessible route Directional sign to accessible entrance not provided	- -	Provide a directional sign indicating the location of the nearest accessible entrance.	1	346	\$346
10	Accessible Entrance/Exit	Ext.		Entrance	Main Entrance		Maneuvering clearance is not provided	12'	Provide an automatic door opener at the bottom of the ramp.  See ID #6.	1	3060	\$3060




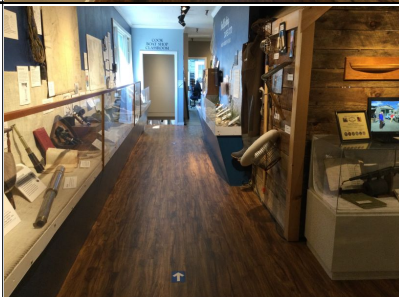

**Town of Barnstable  
Cape Cod Maritime Museum**

ID	Location	Floor	Room	Element	Type	Photo	Issues	Current Measure	Recommendations	Quantity	Price	Cost Estimation
11	Entrance/ Exit to Boat Workshop Near Historic Watercraft	B		Entrance	N/A		Threshold not beveled Threshold > 1/2" high	- 1.5"	Bevel the threshold. Alter threshold to be 1/2" high max.	1	300	\$300
12	Classroom	Ext.		Entrance	Other		Threshold not beveled Threshold > 1/2" high	- 4"	Bevel the threshold. Alter threshold to be 1/2" high max.	1	300	\$300
13	Entrance/ Exit to Boat Workshop Near Historic Watercraft	B		Entrance	N/A		Hardware not operable with a closed fist		Provide hardware that can be operable with one hand and not require tight grasping, pinching, or twisting of the wrist.	1	484	\$484
<b>Emergency Exit</b>												
14	Near Boat Workshop	Ext.		Emergency Exit	N/A		Maneuvering clearance(s) not provided	-	Remove items to maintain the maneuvering clearance at the door.	1	Labor	\$0
15	Exit - Boat Workshop	Ext.		Emergency Exit			Maneuvering clearance(s) not provided		Relocate items to maintain the maneuvering clearance at the emergency exit.	1	Labor	\$0
<b>Access to Goods and Services</b>												






**Town of Barnstable  
Cape Cod Maritime Museum**

ID	Location	Floor	Room	Element	Type	Photo	Issues	Current Measure	Recommendations	Quantity	Price	Cost Estimation
<b>Means of Egress</b>												
16	Accessible Entrance/ Exit	1		Means of Egress	N/A		Tactile exit sign not provided Illuminated ISA symbol not provided (MAAB)	- -	Ensure a tactile exit sign with raised characters and braille is provided at exit door. Mount sign between 48"- 60" above the finished floor located on the latch side of the door. Provide an illuminated sign with the International Symbol of Accessibility.	1	432	\$432
17	Entrance/ Exit	Ext.		Means of Egress	N/A		Tactile exit sign not provided Illuminated ISA symbol not provided (MAAB)	- -	Ensure a tactile exit sign with raised characters and braille is provided at exit door. Mount sign between 48"- 60" above the finished floor located on the latch side of the door. Provide an illuminated sign with the International Symbol of Accessibility.	1	432	\$432
18	Main Entrance/ Exit	1		Means of Egress	N/A		Tactile exit sign not provided Directional sign to accessible emergency exit not provided	- -	Ensure a tactile exit sign with raised characters and braille is provided at exit door. Mount sign between 48"- 60" above the finished floor located on the latch side of the door. Provide a directional sign indicating the location of the nearest accessible emergency exit.	1	432	\$432
<b>Interior Access Route</b>												
19	Lobby/Near Main Entrance/ Exit	1		Interior Access Route	N/A		Route < 36" wide	-	Ensure that a clear width of 36" min. is maintained at the accessible route.	1	Labor	\$0
20	Boat Workshop	B		Interior Access Route	N/A		Route < 36" wide	27"	Ensure that a clear width of 36" min. is maintained at the accessible route.	1	Labor	\$0

**Town of Barnstable  
Cape Cod Maritime Museum**






ID	Location	Floor	Room	Element	Type	Photo	Issues	Current Measure	Recommendations	Quantity	Price	Cost Estimation
21	Historic Watercraft of Cape Cod	B		Interior Access Route	N/A		Route < 36" wide	-	Ensure that a clear width of 36" min. is maintained at the accessible route.	1	Labor	\$0
22	Classroom	Ext.		Interior Access Route	N/A		Route < 36" wide	-	Ensure that a clear width of 36" min. is maintained at the accessible route.	1	-	\$0
23	Historic Exhibit	1		Interior Access Route			Obstructed by protruding objects	12.5"	Provide a cane-detectable barrier.	1	-	\$0
24	Historic Exhibit	1		Interior Access Route	N/A		Obstructed by protruding objects	16"	Provide a cane-detectable barrier.	1	-	\$0
25	Historic Exhibit	1		Interior Access Route	N/A		Obstructed by protruding objects	8.5"	Provide a cane-detectable barrier.	1	-	\$0

**Town of Barnstable  
Cape Cod Maritime Museum**






ID	Location	Floor	Room	Element	Type	Photo	Issues	Current Measure	Recommendations	Quantity	Price	Cost Estimation
26	Historic Exhibit	1		Interior Access Route	N/A		Obstructed by protruding objects	-	Provide a cane-detectable barrier.	1	-	\$0
27	Fine Arts	1		Interior Access Route	N/A		Obstructed by protruding objects	10"	Provide a cane-detectable barrier.	1	-	\$0
28	Fine Arts	1		Interior Access Route	N/A		Obstructed by protruding objects	6"	Provide a cane-detectable barrier.	1	-	\$0
29	To Boat Workshop	B		Interior Access Route	N/A		Obstructed by protruding objects	-	Relocate objects so they do not protrude into the circulation path.	1	Labor	\$0
30	Boat Workshop	B		Interior Access Route	N/A		Obstructed by protruding objects	5"	Relocate donation box, so it does not protrude into the circulation path.	1	Labor	\$0








**Town of Barnstable  
Cape Cod Maritime Museum**

ID	Location	Floor	Room	Element	Type	Photo	Issues	Current Measure	Recommendations	Quantity	Price	Cost Estimation
31	Classroom	Ext.		Interior Access Route	N/A		Obstructed by protruding objects	8.5"	Provide a cane-detectable barrier.	1	-	\$0
<b>Doors, Doorways, &amp; Gates</b>												
32	Boat Workshop	B		Doors, Doorways, & Gates	N/A		Threshold not beveled Threshold > 1/2" high	- 3"	Bevel the threshold. Alter the threshold to be 1/2" high max.	1	300	\$300
33	Historic Watercraft of Cape Cod	B		Doors, Doorways, & Gates	N/A		Threshold not beveled Threshold > 1/2" high	- 1.5"	Bevel the threshold. Alter the threshold to be 1/2" high max.	1	300	\$300
34	Historic Watercraft of Cape Cod	B		Doors, Doorways, & Gates			Threshold not beveled Threshold > 1/2" high	- 4"	Bevel the threshold. Alter the threshold to be 1/2" high max.	1	300	\$300
35	Employee Toilet Room/ Extra Public Toilet Room	1		Doors, Doorways, & Gates	Toilet Room		Hardware not operable with a closed fist	-	Provide hardware that can be operable with one hand and not require tight grasping, pinching, or twisting of the wrist.	1	484	\$484



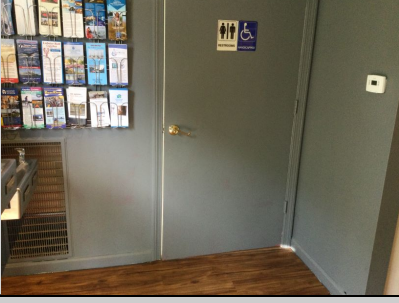


**Town of Barnstable  
Cape Cod Maritime Museum**

ID	Location	Floor	Room	Element	Type	Photo	Issues	Current Measure	Recommendations	Quantity	Price	Cost Estimation
36	Boat Workshop	B		Doors, Doorways, & Gates	N/A		Hardware not operable with a closed fist	-	Provide hardware that can be operable with one hand and not require tight grasping, pinching, or twisting of the wrist.	1	484	\$484
37	Entrance/Exit to Boat Workshop Near Historic Watercraft	B		Doors, Doorways, & Gates	N/A		Hardware not operable with a closed fist	-	Provide hardware that can be operable with one hand and not require tight grasping, pinching, or twisting of the wrist.	1	484	\$484
38	Near Classroom	Ext.		Doors, Doorways, & Gates	Classroom		Hardware not operable with a closed fist	-	Provide hardware that can be operable with one hand and not require tight grasping, pinching, or twisting of the wrist.	1	484	\$484
<b>Stairways</b>												
39	Stair	B		Stairways	Other		Handrails do not extend 12" from stairs	-	Top: Ensure handrails extend horizontally above the landing for 12" min. beginning above the first riser nosing. Bottom: Ensure handrails extend to one tread depth beyond the last riser.	2	332	\$664
<b>Signage</b>												
40	To Working Boat Shop	1		Signage	Directional				Provide a permanent directional sign mounted 40" min. above the finished floor.	1	232	\$232





**Town of Barnstable  
Cape Cod Maritime Museum**

ID	Location	Floor	Room	Element	Type	Photo	Issues	Current Measure	Recommendations	Quantity	Price	Cost Estimation
41	To Boat Workshop	B		Signage					Relocate sign to avoid glare.	1	-	\$0
42	Entrance/Exit	Ext.		Signage	Directional				Provide a permanent directional sign to ensure it is maintained in operable working condition.	1	232	\$232
43	Near Classroom	Ext.		Signage	Directional				Provide a compliant directional sign. Mount sign 40" min. above the finished floor.	1	232	\$232
44	Near Historic Watercraft View Point from Rear Parking	Ext.		Signage	Directional				Provide a permanent directional sign to ensure it is maintained in operable working condition. Mount sign 40" min. above the finished floor.	1	232	\$232
45	To Basement From Lobby	1		Signage	N/A		Signage is not provided		Provide a sign with raised characters duplicated in braille on sign. Mount sign between 48" min. - 60" max. above the finished floor.	1	232	\$232





**Town of Barnstable  
Cape Cod Maritime Museum**

ID	Location	Floor	Room	Element	Type	Photo	Issues	Current Measure	Recommendations	Quantity	Price	Cost Estimation
46	Exit - Boat Workshop	B		Signage	Egress		Signage is not provided Directional sign to accessible emergency exit not provided	- -	Locate compliant signage alongside the door on the latch side. Provide a directional sign indicating the location of the nearest accessible emergency exit.	1	432	\$432
47	Employee Toilet Room/ Extra Public Toilet Room	1		Signage	Designation		Raised characters not provided on sign Braille not provided on sign	- -	Provide text with raised characters duplicated in braille on sign. Remove furniture to ensure an 18" by 18" clear floor space is provided at the sign.	1	232	\$232
48	Single-User Toilet Room	1		Signage	Designation		Raised characters not provided on sign Braille not provided on sign Sign not located on the latch side of the door	- - -	Provide text with raised characters duplicated in braille on sign. Locate sign alongside the door on the latch side.	1	232	\$232
<b>Operable Parts</b>												
49	Near Classroom	Ext.		Operable Parts	Other		Element not on an accessible route	-	Relocate fire extinguisher so it is within reach range.	1	Labor	\$0
50	Near Accessible Entrance / Exit	1		Operable Parts	N/A		Clear floor space is not provided	-	Relocate the brochure track so it is within reach range.	1	256	\$256





**Town of Barnstable  
Cape Cod Maritime Museum**

ID	Location	Floor	Room	Element	Type	Photo	Issues	Current Measure	Recommendations	Quantity	Price	Cost Estimation
51	Boat Workshop	B		Operable Parts	Other		Emergency eyewash out of reach range	57.8"	Provide one emergency eyewash 48" max. above the floor.	1	Labor	\$0
<b>Dining or Work Surfaces</b>												
52	Boat Workshop	B		Dining or Work Surfaces	Work Surface		Knee or toe clearance not provided	-	Provide at least 1 work surface with 27" min. knee and toe clearance.	1	700	\$700
<b>Picnic Tables</b>												
53	Outdoor Seating, Outside Classroom	Ext.		Picnic Tables	N/A		Toe or knee clearance at tables not provided	-	Provide at least 1 picnic table with toe and knee clearance.	1	1400	\$1400
<b>Toilet &amp; Bathing Rooms</b>												
<b>Overall Access</b>												
54	Employee Toilet Room/ Extra Public Toilet Room	1		Overall Access	Toilet Room		Turning space not provided	-	Provide a directional sign to the accessible toilet.	1	232	\$232


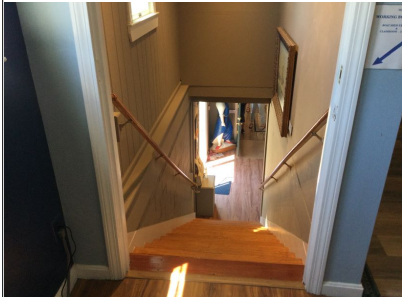

**Town of Barnstable  
Cape Cod Maritime Museum**

ID	Location	Floor	Room	Element	Type	Photo	Issues	Current Measure	Recommendations	Quantity	Price	Cost Estimation
<b>Lavatory</b>												
55	Single-User Toilet Room	1		Lavatory			Mirror above lavatory w/reflective surface > 40"	51"	Lower mirror so that the bottom surface is at 40" max. above the finished floor.	1	256	\$256
<b>Single-User Toilet</b>												
56	Single-User Toilet Room	1		Single-User Toilet	N/A		Flush control not on open side Grab bar not provided	- -	Relocate the flush control to the open side. Provide one grab bar on the side wall of the toilet and one on the rear wall.	1	1272	\$1272
57	Single-User Toilet Room	1		Single-User Toilet	N/A		Distance between toilet and nearest fixture < 42"	36"	Remove shelf to provide the required 42" min. distance between the toilet and the nearest fixture.	1	Labor	\$0
<b>Additional Access</b>												
<b>Sink</b>												
58	Boat Workshop	B		Sink	Classroom		Toe and knee clearances not provided Non-compliant faucets	- -	Ensure there is a 27" knee clearance positioned for a forward approach. Install faucets that do not require tight grasping, pinching, or twisting of the wrist.	1	1686	\$1686

**Town of Barnstable  
Cape Cod Maritime Museum**

ID	Location	Floor	Room	Element	Type	Photo	Issues	Current Measure	Recommendations	Quantity	Price	Cost Estimation
59	Boat Workshop	B		Sink	N/A		Non-compliant faucets	-	Install faucets that do not require tight grasping, pinching, or twisting of the wrist.  See ID #58.	1	-	\$0
<b>Best Practice</b>												
<b>Lavatory</b>												
60	Employee Toilet Room/ Extra Public Toilet Room	1		Lavatory	N/A				Recommend providing a faucet that can be operable with one hand and not require tight grasping, pinching, or twisting of the wrist.	1	-	\$0
<b>Benches</b>												
61	Fine Arts	1		Benches	N/A				Recommend relocating the bench.	1		\$0
<b>Signage</b>												
62	From Basement to Lobby	1		Signage	N/A				Recommend providing a second sign at the top of the door.	1	-	\$0

**Town of Barnstable  
Cape Cod Maritime Museum**

ID	Location	Floor	Room	Element	Type	Photo	Issues	Current Measure	Recommendations	Quantity	Price	Cost Estimation
63	Entrance/ Exit to Boat Workshop Near Historic Watercraft	B		Signage					Provide a permanent sign with the same information and a directional sign to the historic watercraft exhibit.	1	-	\$0
<b>Stairways</b>												
64	To Basement From Lobby	1		Stairways	N/A				Recommend adding contrasting strips at the edge of each step at all interior and exterior stairs. At the top of the stairs provide a full-secured textured floor mat.	1	-	\$0
<b>Gate</b>												
65	Rear Gate Entrance/ Exit at Rear Parking	Ext.		Gate	N/A				Recommended providing a gate surface within 10" of the ground on the push side of the gate.	1	-	\$0