



Engineering
& Design



Cape May Promenade

Master Plan & Preliminary Visioning



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01 / Introduction

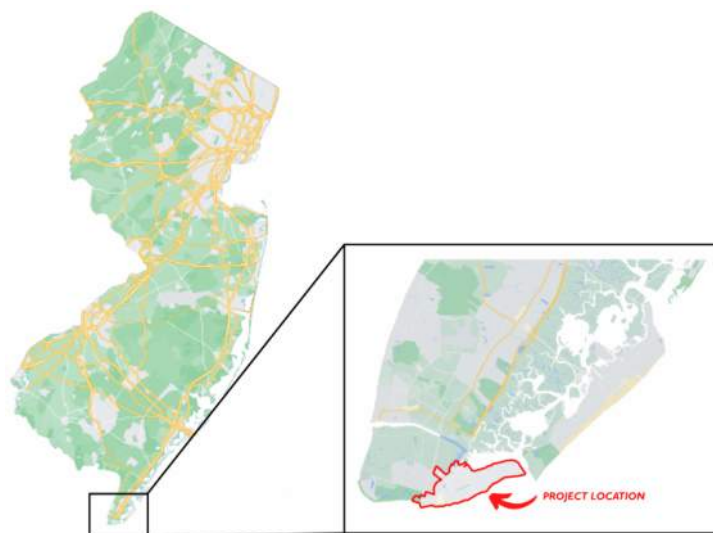
History of The Cape May Promenade

Nestled on the southeastern tip of New Jersey, Cape May stands as a timeless testament to the allure of seaside destinations. However, there is one unique feature that has not only defined Cape May's identity but also played an integral role in its rise as the nation's oldest seaside resort—the Cape May Promenade. This iconic stretch of coastal serenity, originally known as the Cape May Boardwalk, boasts a rich history that dates back to the late 1860s.

The Promenade's history is a tale of resilience, adaptation, and the enduring spirit of Cape May. First built as the Cape May Boardwalk, it was the first seaside walkway in New Jersey, setting the stage for generations of leisure-seekers to come. Visitors flocked to this wooden promenade, creating cherished memories against the backdrop of the stunning Atlantic Ocean.



Over the years the Cape May Boardwalk faced the relentless challenges of coastal storms, with one unforgettable nor'easter in 1962 leaving its indelible mark. Along with damaging several town properties, this devastating storm spelled the end for the original boardwalk. Yet, Cape May was undeterred in its commitment to preserving its beloved landmark.



In a remarkable display of fortitude and resourcefulness, the boardwalk was reborn as the Cape May Promenade. This new incarnation featured a seawall, reinforced and resilient, crowned with a pristine concrete walkway. Today, the Cape May Promenade stands as a testament to Cape May's unwavering dedication to preserving its history while adapting to the needs of the present.

Stretching for an uninterrupted two miles, running parallel to the enchanting Beach Avenue, the Cape May Promenade is a magnificent

example of coastal beauty. Its uninterrupted span offers an experience unique to Cape May, as it contains no intersections or crosswalks. This singular feature makes the Promenade the natural choice for a variety of activities, from leisurely strolls and invigorating jogs to relaxed and even wildlife viewing. The Cape May Promenade invites all who visit to savor its unique blend of history, nature, and recreation.

Now, many years after its first construction, the Cape May Promenade is deteriorated and in desperate need of rehabilitation. In this Assessment, we will articulate a visionary plan for the Promenade's future and outline the imperative steps necessary to secure its longevity for many more years to come.

02 / Future Vision of the Promenade

Promenade Master Plan / Preservation Project

Our commitment to the Cape May Promenade's future centers on a comprehensive strategy aimed at preserving its legacy and elevating its functionality. The Promenade, with its historical significance, scenic beauty, and recreational value, demands a proactive approach to ensure its longevity and functionality moving forward. This vision outlines a series of proposed improvements:

STRUCTURAL INTEGRITY AND PRESERVATION

To guarantee the Promenade's structural soundness and safeguard its historic charm, we will execute a program of concrete repairs and apply a protective coating to the existing concrete wall along Beach Avenue. **This strategy is designed to prolong the Promenade's lifespan while preserving its role as a cherished coastal attraction and a critical component of Cape May's coastal flood defense system.**

ACCESSIBILITY FOR ALL

With the City's dedication to inclusivity, we will undertake the necessary modifications to bring ten (10) existing ADA access ramps up to code and repair where needed. This improvement ensures that the Promenade is universally accessible, enabling individuals with mobility challenges to partake in the coastal splendor. Our commitment is to create an environment where every visitor can relish the Promenade's natural beauty, shopping, and recreational opportunities.

EXPANDING ADA ACCESS POINTS

In the spirit of inclusivity, we propose the construction of six (6) new ADA access ramps in strategic locations where none currently exist. This expansion broadens the reach of accessible areas along the Promenade and enhances the convenience of all visitors, making it possible for more individuals to appreciate Cape May's scenic vistas and vibrant life.

STORM RESILIENCE AND LONGEVITY

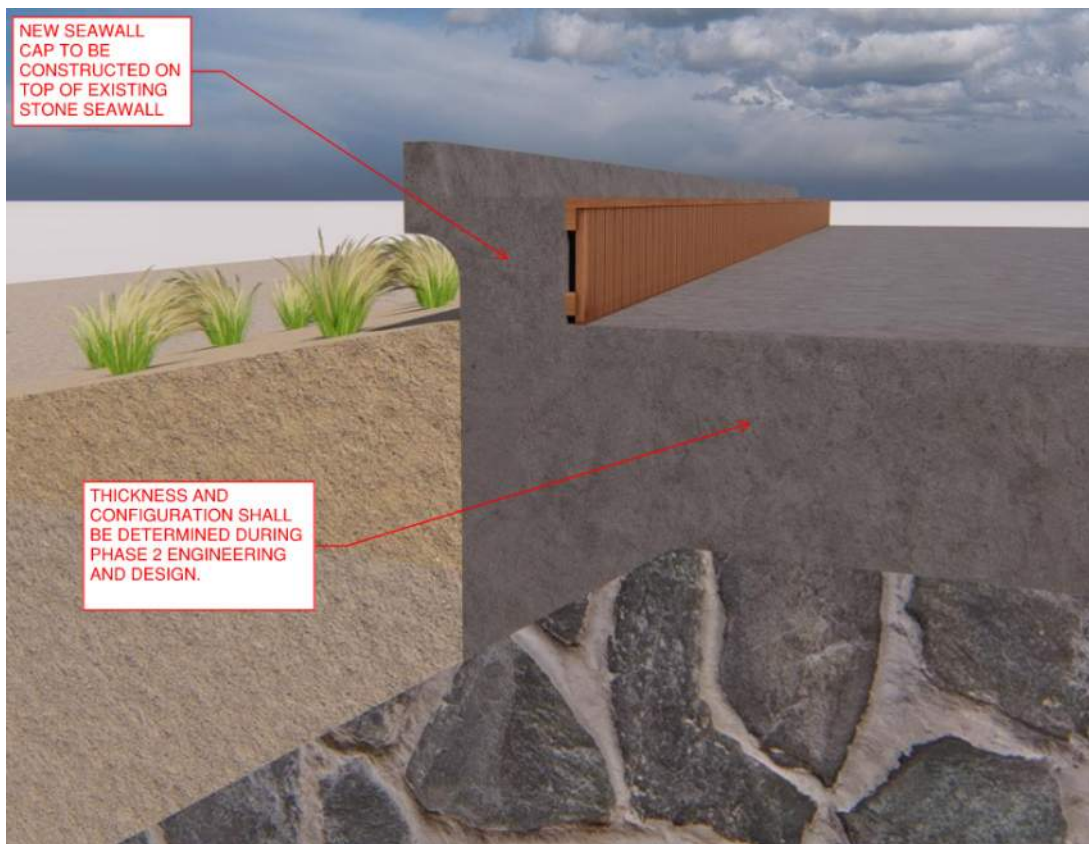
In order to fortify the Cape May Promenade against the challenges of coastal living, we propose a two-pronged approach involving both widening and raising the structure. This comprehensive strategy serves to enhance flood resilience and extend the Promenade's durability while underscoring our unwavering commitment to ensuring its longevity amidst evolving environmental demands.

Widening of the promenade is specifically recommended between Jackson Street and 1st Avenue. It is our intention that the expansion in this area does not encroach upon the existing dune system. **This is a critical consideration, as the existing timber bulkhead on the south side of the Promenade in this region is in a state of disrepair, with areas experiencing significant deterioration and loss of retained earth, leading to the formation of sinkholes on the Promenade walking surface.**

The widening of the promenade will facilitate the installation of a steel bulkhead seawall in front of the deteriorated timber bulkhead. These steel sheets will not only provide protection to the City of Cape May for the coming decade but also enable the extension of the seawall height, establishing a dedicated sitting area along the south side of the Promenade.

Furthermore, we propose the construction of a sitting/seawall extension along the south side of the remaining Promenade sections, starting from the area between Philadelphia Avenue and Madison Avenue and continuing along the entire Promenade to the West-End. This seawall height extension will increase the existing seawall height by approximately 2'-2", thereby elevating the flood protection level from an average of +10.5 NAVD88 to approximately +12.65 NAVD88. This extension will be constructed atop the existing stone seawall that runs along the south side of the Promenade. Notably, this design will harmoniously integrate with the seawall proposed for the East-End of the city, and it will also serve as a multifunctional sitting wall, unifying the coastal area of Cape May City. See below for a photorealistic rendering of the proposed seawall height extension cap.

We also propose to replace a section of the deteriorated bulkhead along Beach Avenue. Replacing this section will also ensure the promenade can service the public and protect the historic City of Cape May.



Promenade height extension cap to increase storm protection and resilience of the promenade

PROMENADE BATHROOM FACILITIES REHABILITATION

The comfort stations along the promenade represent crucial amenities for visitors, offering necessary facilities for a comfortable beach experience. However, the assessment has raised concerns regarding their current state and resilience to potential flood damage.

One notable concern is the elevation of these comfort stations. They do not appear to be situated above the designated flood elevation, rendering them vulnerable to flood damage during extreme weather events. This poses a significant risk to their structural integrity and functionality.

Additionally, these comfort stations are on the older side and may require significant maintenance and upgrades to meet modern standards for amenities and accessibility. Aging infrastructure may not provide the level of comfort and service expected by beachgoers.

To address these concerns, we propose two potential courses of action. The first option is to consider the replacement of the existing comfort stations entirely. This approach would involve constructing new, flood-resilient structures that meet contemporary design and accessibility standards.

Alternatively, the second option involves retrofitting the current comfort stations to be wet flood-proofed, ensuring they can withstand potential flood events without sustaining damage. Alongside this, updates and modernization efforts would be undertaken to provide visitors with improved facilities and amenities.

Overall, these proposed solutions aim to enhance the resilience and functionality of the comfort stations, ensuring that they continue to serve the needs of beachgoers while safeguarding against flood damage.

Please refer to Appendix A at the end of this document for the detailed promenade plan illustrating the project limits, the proposed enhancements and proposed preservation activities.

Project Phasing & Priority

Phase 1 (Priority 1): The Cape May Promenade Preservation Project is structured into separate phases, each meticulously designed to ensure the restoration and enhancement of this iconic landmark. **Phase 1, scheduled for Year 2 (2025), is the initial stage aimed at addressing the deterioration of the promenade and introducing significant ADA enhancements.** Within the scope of Phase 1, we will accomplish the replacement of the promenade's walking surface, fortifying its durability through the application of a protective coating. Additionally, Phase 1 encompasses the vital task of rehabilitating the concrete wall along Beach Avenue, providing structural enhancements to ensure longevity. Furthermore, the project will entail the application of a protective coating to the Beach Avenue wall, mitigating wear and tear. The deteriorated section of the timber bulkhead along Beach Avenue will be replaced, serving as a critical component of this preservation effort. Phase 1 will also witness the repair and enhancement of ten (10) existing ADA ramps while the construction of six (6) new ADA ramps will expand accessibility for all visitors to the Cape May Promenade.

Phase 2 (Priority 2), to be executed in Year 3 (2026) and aptly named "Promenade Preservation - Promenade Widening & Height Extension Cap," will introduce a host of transformational features to the promenade. This phase includes the installation of a new promenade/seawall cap running along the ocean side, substantially increasing storm resilience, and safeguarding the city from the impacts of coastal flooding events. Moreover, Phase 2 encompasses the widening of the promenade between Jackson Street and 1st Avenue. In this specific area, the existing timber bulkhead, which lines the south side of the promenade, is in poor to failing condition and needs to be replaced. To this end, the City has proposed the installation of a new steel bulkhead in front of the existing timber bulkhead. This innovative approach enhances storm protection and facilitates the construction of a new height extension cap atop the new steel bulkhead cut-off wall. **This phase is crucial for ensuring the long-term structural integrity and resilience of the Cape May Promenade. It aims to enhance the promenade's functionality, providing increased protection for the historic City of Cape May against potential damage from sea level rise, storm surges, and coastal flooding.**

03 / Promenade Assessment

Colliers Engineering & Design, Inc. conducted a comprehensive assessment of the Cape May Promenade on October 11, 2023. Our office uncovered observations and key findings that are instrumental in understanding the current condition and challenges faced by this iconic landmark. The following is a detailed summary of the assessment's key observations:

Overall Promenade General Conditions

The assessment of the Cape May Promenade offers an overview of the current state of this iconic coastal landmark. The observations and findings underscore the need for proactive measures to address various structural and accessibility concerns.

Structural Condition and Maintenance:

The assessment revealed notable issues with the structural integrity of the Promenade. These concerns encompassed concrete deterioration, including cracking, spalling, and efflorescence, as well as exposed rebar and hollow concrete in certain areas. Tripping hazards on ADA ramps were identified, emphasizing the necessity for immediate attention to ensure visitor safety. The existing asphalt walking surface of the promenade is in fair condition but is showing signs of its age in the form of cracking, fading and settlement. We propose to resurface and coat the walking surface to prolong the useful life of the asphalt. The City has coated a section of the existing promenade and it appears to be holding up decently. It is showing signs of wear but overall looks to be in better condition than the rest of the asphalt on the promenade. **In general, the promenade is currently in fair condition; however, it requires substantial maintenance and concrete repairs to ensure its longevity and allow it to provide flood protection and accommodate tourism for the next decade.**

Accessibility and Amenities:

The assessment highlighted ADA accessibility concerns, including the absence of an ADA ramps at the following promenade access points:

1. #1 – Promenade East End
2. #3 – Queen Street
3. #15 – Grant Street Comfort Station
4. #18 – 1st Avenue
5. #19 – 2nd Avenue

In addition, our assessment uncovered concerns related to existing ADA ramps and steps at various locations. These issues encompassed insufficient guard and grab rails, potential tripping hazards, and concrete deterioration on the ramps and steps. The trash receptacles, while functional, are showing signs of wear and sun damage, with their condition rated as fair.

Furthermore, our evaluation extended to elements such as architectural features and amenities like bike racks and comfort stations. Notably, the bike racks in areas are not protected from traffic and are placed in the parking areas along Beach Avenue.

Future Considerations:

To ensure the continued vitality and enjoyment of the Cape May Promenade, it is imperative to address the identified concerns. These include concrete repairs, expansion joint sealant, asphalt resurfacing, improved ADA accessibility, enhanced public amenities and overall maintenance of the promenade. The assessment serves as a valuable foundation for future planning, maintenance, and preservation efforts, underscoring the importance of proactive measures to protect and enhance this cherished coastal attraction.

Specific Promenade Access Points

#1 – Promenade East End – Overall Grade (D)



This access point represents the farthest eastern reach of the current Cape May Promenade. It serves as a shared area for both pedestrians and City vehicles utilized for beach-related municipal tasks. However, the pedestrian access at this point falls significantly short of meeting ADA standards.

Roadside Retaining Wall: Grade (D)

The current timber retaining wall is in a state of disrepair. The wall then transitions to a concrete retaining wall, which is in poor condition and exhibits signs of concrete spalling, cracking, and efflorescence.

ADA Access – (F)

This access point lacks an ADA-compliant ramp. Additionally, the slopes leading up to it do not meet the acceptable ADA slope standards. People who need an ADA ramp would need to go to Madison Avenue in order to access the promenade safely.

Boardwalk Amenities – (D)

This access point lacks both bike racks and a rinse station but is equipped with trash receptacles.

Preservation Recommendations:

- To enhance the promenade's storm resiliency, we propose the construction of an extended seawall/sitting wall along the southern edge, safeguarding the promenade and its surrounding infrastructure.
- Our plan involves implementing a concrete repair program for the existing concrete wall along Beach Avenue. This program will comprehensively address concrete spalling and cracking issues while applying a protective concrete coating to ensure the promenade's longevity and structural integrity.



- In line with our commitment to inclusivity, we recommend the addition of a new ADA-compliant access ramp. This addition will ensure that individuals with disabilities have equal access to the promenade, making it an inclusive and accessible destination.
- To maintain the promenade's functionality for essential beach-related operations, we emphasize the need for the continued operation and resilience of the vehicular access, contributing to the preservation of vital functions and services along the promenade.

#2 - Madison Avenue – Overall Grade (D)



This access point serves as the initial ADA-compliant entry on the promenade, featuring a concrete ADA ramp and concrete steps leading to the promenade level.

Roadside Retaining Wall: Grade (D)

The current concrete wall exhibits significant signs of wear and deterioration, characterized by prevalent concrete spalling and cracking.

ADA Access – (B)

This access point features an ADA access ramp and a durable timber decking surface leading to the beach. However, there are potential tripping hazards at the top of the ADA ramp. Additionally, the stairs lack a railing and guardrail on the street side of the stairs, which can pose safety concerns.

Preservation Recommendations:

- We recommend repairing the concrete retaining wall along Beach Avenue in a manner similar to what was previously mentioned.



- Additionally, we propose enhancing the top transition from the ADA ramp to the promenade to eliminate the tripping hazards identified.
- Repair existing concrete ADA ramp.



#3 – Queens Street – Overall Grade (D)



This access point solely features a staircase for entry. It is equipped with trash receptacles and provides access to the beach, although it lacks a rinse station.

Roadside Retaining Wall: Grade (D)

The existing concrete wall is in poor to fair condition. It has concrete spalling and cracking in areas.

ADA Access – (F)

This access point has no ADA access. The railing for the existing stairs are also not to code.

Preservation Recommendations:

- We recommend repairing and coating the concrete retaining wall along Beach Avenue in a manner similar to what was previously mentioned.



- Construct a new ADA access ramp.

#4 – Jefferson Street – Overall Grade (D)



This access point has stairs and a ramp. It has similar concrete deterioration.

Roadside Retaining Wall: Grade (D)

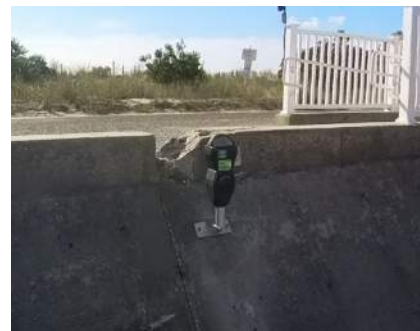
The existing concrete wall is in poor to fair condition. It has exposed rebar, concrete spalling and cracking in areas.

ADA Access – (B)

This access point has an ADA ramp, but it is in poor condition and need repairs.

Preservation Recommendations:

- Concrete repairs and coating of the wall along Beach Avenue.
- Promenade walking surface resurfacing.
- Repair existing concrete ADA ramp.



#5 – Howard Street – Overall Grade (D)



This access point has a concrete ramp from the street level up onto the promenade. The concrete is in poor condition.

Roadside Retaining Wall: Grade (D)

The existing concrete wall is in poor to fair condition. It has exposed rebar, concrete spalling and cracking in areas.

ADA Access – (B)

This access point has an ADA ramp, but it is in poor condition and need repairs.

Preservation Recommendations:

- Concrete repairs and coating of the wall along Beach Avenue.
- Promenade walking surface resurfacing.
- Repair existing concrete ADA ramp.

#6 – Stockton Place – Overall Grade (A)



This is the main access point for the Cape May Convention Hall. It appears some concrete repairs and coating have been carried out in this location. These are also good amenities like protected bike racks, a bike repair station, ADA access, good lighting etc. We propose to use this access point as the template for the other access points along the promenade.

Roadside Retaining Wall: Grade (B)

The existing concrete wall is in good condition and has been coated to increase lifespan of the wall and improve the overall aesthetics.

ADA Access – (A)

This access point has an ADA ramp, and it is in good condition.

Preservation Recommendations:

- Recoat wall as needed.
- Repair existing concrete ADA ramp.

#7 – Gurney Street – Overall Grade (B)



Portions of the concrete wall in this area have been repaired and coated, others have been left in their existing deteriorated condition. This access point has steps and a ramp that are in need of concrete repairs. There is a comfort station that is in fair condition.

Roadside Retaining Wall: Grade (B)

The existing concrete wall is in good condition. Portions still need repairs and a protective coating.

ADA Access – (B)

This access point has an ADA ramp. It is in good condition and needs only minor repairs.

Preservation Recommendations:

- Concrete repairs and coating of the wall along Beach Avenue.
- Promenade walking surface resurfacing.
- Comfort station rehab and wet floodproofing.
- Repair existing concrete ADA ramp.

#8 – Ocean Street – Overall Grade (B)



Overall, the Ocean Street access point is in good condition. The promenade walking surface has been redone recently. This area needs minor repairs and a protective coating.

Roadside Retaining Wall: Grade (B)

The existing concrete wall is in good condition, needs minor repairs and a protective coating.

ADA Access – (B)

This access point has an ADA ramp, it is in good condition.

Preservation Recommendations:

- Concrete repairs and coating of the wall along Beach Avenue.
- Repair existing concrete ADA ramp.

#9 – Decatur Street – Overall Grade (C)



At this access point, there is a ramp leading up to the promenade. Notably, the concrete wall in this vicinity seems to be in better condition. While minor concrete repairs are still required, the level of deterioration observed here is notably lower when compared to the East End.

Roadside Retaining Wall: Grade (C)

The existing concrete wall is in fair condition, needs minor repairs and a protective coating.

ADA Access: (C)

This access point has an ADA ramp that is in fair condition.

Preservation Recommendations:

- Concrete repairs and coating of the wall along Beach Avenue.
- Repair existing concrete ADA ramp.

#10 – Jackson Street – Overall Grade (B)



Just before reaching this access point, the promenade experiences a narrowing after the Beach Arcade building. Here, a new ADA ramp is installed and is in excellent condition. Given the limited space available on the promenade, this ramp extends into the street, occupying the width of the parking stalls along Beach Avenue.

Here, the promenade configuration changes. The existing stone seawall on the South side of the promenade ends right after the Beach Arcade on the West Side. A timber bulkhead takes the seawalls place along the South Side of the promenade to protect the City and create the promenade walking surface. This timber bulkhead is in poor to failing condition and needs replacement.

Roadside Retaining Wall: Grade (C)

The existing concrete wall is in fair condition, needs minor repairs and a protective coating.

ADA Access: (A)

This access point has an ADA ramp that is in excellent condition.

Preservation Recommendations:

- Concrete repairs and coating of the wall along Beach Avenue.
- It is at this location that we proposed to begin the promenade widening and the steel bulkhead seawall installation portion of the preservation project.
- Resurface promenade walking surface and apply coating.

#11 – Perry Street – Overall Grade (C)



This access point exemplifies a primary challenge with the width of the promenade in this segment. An existing ramp extends into the promenade's width, significantly narrowing it. These areas have been prone to issues between bikers and pedestrians using the promenade.

The proposed widening project will address this concern. This widening effort aims to enhance the usability of the promenade in these specific areas. Additionally, it will entail the replacement of the deteriorating timber bulkhead seawall with a new steel bulkhead seawall, raising the level of storm protection for the City of Cape May.

Roadside Retaining Wall: Grade (C)

The existing concrete wall is in fair condition, needs minor repairs and a protective coating.

ADA Access: (D)

The existing walls of the concrete ramp are in poor condition and need repairs and coating.

Preservation Recommendations:

- Concrete repairs and coating of the wall along Beach Avenue.
- Continue the promenade widening and the steel bulkhead seawall installation.
- Resurface promenade walking surface and apply coating.
- Repair existing concrete ADA ramp.

#12 – Congress Street – Overall Grade (C)



This access point has a new ADA ramp that extends into Beach Avenue.

Roadside Retaining Wall: Grade (D)

The existing concrete wall is in poor condition with large concrete spalling and cracking.

ADA Access: (A)

The ADA ramp is new and in excellent condition.

Preservation Recommendations:

- Concrete repairs and coating of the wall along Beach Avenue.



- Continue the promenade widening and the steel bulkhead seawall installation.
- Resurface promenade walking surface and apply coating.

#13 – Windsor Avenue – Overall Grade (B)



This access point also has a new ADA ramp that extends into Beach Avenue.

Roadside Retaining Wall: Grade (B)

The existing concrete wall is in good condition.

ADA Access: (A)

The ADA ramp is new and in excellent condition.

Preservation Recommendations:

- Concrete repairs and coating of the wall along Beach Avenue.
- Continue the promenade widening and the steel bulkhead seawall installation.
- Resurface promenade walking surface and apply coating.

#14 – Grant Street – Overall Grade (C)



This access point has an existing concrete ramp and steps up onto the promenade. The Bike racks are in the street somewhat protected from traffic by the raised curb to the West.

Roadside Retaining Wall: Grade (C)

The existing concrete wall is in fair condition with spalling and cracking in select areas.

ADA Access: (C)

The ADA ramp and steps are in fair condition.

Preservation Recommendations:

- Concrete repairs and coating of the wall along Beach Avenue.
- Continue the promenade widening and the steel bulkhead seawall installation.
- Resurface promenade walking surface and apply coating.
- Repair existing concrete ADA ramp.

#15 – Grant Street Comfort Station – Overall Grade (D)



This access point has a comfort station and steps. The railings for the steps are notable not ADA compliant. It is at this location where the concrete wall along Beach Avenue turns into a timber bulkhead in poor to fair condition.

The comfort station is in fair condition, it appears to be below DFE and not properly flood proofed.

Roadside Retaining Wall: Grade (D)

The existing concrete wall is in poor condition with spalling, efflorescence and cracking throughout.

ADA Access: (F)

There is no ADA access.

Preservation Recommendations:

- Concrete repairs and coating of the wall along Beach Avenue.
- Continue the promenade widening and the steel bulkhead seawall installation.
- Resurface promenade walking surface and apply coating.
- Construct a new ADA compliant ramp.
- Replace Timber bulkhead.
- Rehab and flood proof comfort station.

#16 – Patterson Avenue – Overall Grade (D)



This access point has a timber ramp in fair condition. The timber bulkhead continues through this section of the promenade.

Roadside Retaining Wall: Grade (D)

The existing timber bulkhead along the road is in poor condition. It is missing planks and the top board is weathered and loose.

ADA Access: (F)

There is a ramp but it lacks ADA compliant grab rails.

Preservation Recommendations:

- Replace timber bulkhead along Beach Avenue.
- Continue the promenade widening and the steel bulkhead seawall installation.
- Resurface promenade walking surface and apply coating.
- Construct a new ADA ramp.

#17 – S. Broadway – Overall Grade (D)



The timber bulkhead along Beach Avenue transitions back to a concrete wall. This access point does a ramp, but it is in poor condition.

Roadside Retaining Wall: Grade (D)

The existing timber bulkhead along the road is in poor condition. The concrete wall is also in poor condition and is in need of repairs.

ADA Access: (C)

The concrete ramp is in fair condition and need concrete spall and crack repairs.

Preservation Recommendations:

- Replace timber bulkhead along Beach Avenue.
- Repair and apply a protective coating to the concrete wall along the road.
- Continue the promenade widening and the steel bulkhead seawall installation.
- Resurface promenade walking surface and apply coating.
- Repair the existing ADA ramp.

#18 – 1st Avenue – Overall Grade (C)



This access point does not have any ramps only steps up onto the promenade. The access point is in fair condition overall and needs similar repairs and preservation activities. We proposed to end the promenade widening and seawall height extension at the 1st Avenue beach entrance due to the location of the existing dune system.

Roadside Retaining Wall: Grade (C)

The concrete wall along beach avenue is in fair to good condition in this area.

ADA Access: (F)

No ADA access.

Preservation Recommendations:

- Repair and apply a protective coating to the concrete wall along the road.
- Continue the promenade widening and the steel bulkhead seawall installation until the 1st Avenue beach entrance.
- Resurface promenade walking surface and apply coating.
- Construct ADA ramp.

#19 – 2nd Avenue – Overall Grade (C)



This access point does not have any ramps only steps up onto the promenade. It does have a comfort station in fair condition.

Roadside Retaining Wall: Grade (C)

The concrete wall along beach avenue is in fair to good condition in this area.

ADA Access: (F)

No ADA access.

Preservation Recommendations:

- Repair and apply a protective coating to the concrete wall along the road.
- Resurface promenade walking surface and apply coating.
- Construct a new ADA compliant ramp.
- Rehab and flood proof the existing comfort station.

#20 – Cove Beach – Overall Grade (C)



This is the West end of the promenade. It has a newer ADA access ramp and a covered pavilion area.

Roadside Retaining Wall: Grade (C)

The concrete wall along beach avenue is in fair to good condition in this area.

ADA Access: (B)

The existing Ada ramp appears to be on the newer side with composite decking and railings up to ADA code.

Preservation Recommendations:

- Repair and apply a protective coating to the concrete wall along the road.
- Resurface promenade walking surface and apply coating.

04 / Conclusion

In summary, the Cape May Promenade currently maintains a fair condition, but it exhibits signs of aging and is in dire need of preservation. Presently, the promenade's condition enables the City to execute corrective maintenance and preservation actions, extending its functional lifespan. However, as time passes, the promenade's state is likely to deteriorate further, with concrete degradation potentially reaching a point where repairs become economically unfeasible, necessitating full replacement and significantly increasing preservation costs.

Our belief is that by undertaking a comprehensive concrete rehabilitation project, the promenade can be preserved for many years to come. **This preservation effort not only bolsters the resilience of the promenade against storms but also enhances accessibility for individuals with mobility impairments, ensuring the promenade's structural integrity for future generations of Cape May tourists and residents.** Furthermore, our plan aims to sustain the robust tourism industry of Cape May, serving as a vital economic driver for the City, and fortifying its status as a sought-after year-round destination.

Appendix A

Cape May Promenade | Preservation Project Plan

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Appendix B

Cape May Promenade | Access Point Assessment Matrix

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**CAPE MAY PROMENADE
PROMENADE ACCESS POINTS
CONDITIONS AS OF: OCTOBER 11, 2023**

ACCESS POINT	ADA ACCESS RAMP	CONDITION OF RAMP	STEPS	CONDITION OF STEPS	COMFORT STATION	CONDITION OF COMFORT STATION	BIKE RACKS	CONDITION OF BIKE RACKS	GENERAL STRUCTURAL CONDITION OF ACCESS POINT	OVERALL ACCESS POINT GRADE	PROPOSED ADA RAMP
#1 Promenade East End	No	N/A	Yes	(D) Poor	No	N/A	No	N/A	(D) Poor	(D) Poor	Yes
#2 Madison Ave	Yes	(D) Poor	Yes	(D) Poor	No	N/A	No	N/A	(D) Poor	(D) Poor	No
#3 Queen St	No	N/A	Yes	(C) Fair	No	N/A	No	N/A	(D) Poor	(D) Poor	Yes
#4 Jefferson St	Yes	(D) Poor	Yes	(D) Poor	No	N/A	No	N/A	(D) Poor	(D) Poor	No
#5 Howard St	Yes	(D) Poor	No	N/A	No	N/A	Yes	(D) Poor	(D) Poor	(D) Poor	No
#6 Stockton Pl	Yes	(B) Good	Yes	(B) Good	No	N/A	Yes	(A) Excellent	(B) Good	(A) Excellent	No
#7 Gurney St	Yes	(B) Good	Yes	(B) Good	Yes	(C) Fair	Yes	(A) Excellent	(B) Good	(B) Good	No
#8 Ocean St	Yes	(B) Good	No	N/A	No	N/A	Yes	(C) Fair	(C) Fair	(B) Good	No
#9 Decatur St	Yes	(C) Fair	No	N/A	No	N/A	Yes	(D) Poor	(C) Fair	(C) Fair	No
#10 Jackson St	Yes	(A) Excellent	Yes	(A) Excellent	No	N/A	Yes	(C) Fair	(C) Fair	(B) Good	No
#11 Perry St	Yes	(D) Poor	No	N/A	No	N/A	Yes	(D) Poor	(C) Fair	(C) Fair	No
#12 Congress St	Yes	(A) Excellent	Yes	(B) Good	No	N/A	Yes	(D) Poor	(D) Poor	(C) Fair	No
#13 Windsor Ave	Yes	(A) Excellent	Yes	(A) Excellent	No	N/A	Yes	(D) Poor	(B) Good	(B) Good	No
#14 Grant St	Yes	(C) Fair	Yes	(C) Fair	No	N/A	Yes	(C) Fair	(C) Fair	(C) Fair	No
#15 Grant St Comfort Station	No	N/A	Yes	(D) Poor	Yes	(B) Good	Yes	(D) Poor	(D) Poor	(D) Poor	Yes
#16 Patterson Ave	Yes	(C) Fair	No	N/A	No	N/A	Yes	(D) Poor	(D) Poor	(D) Poor	Yes
#17 S Broadway	Yes	(C) Fair	No	N/A	No	N/A	Yes	(D) Poor	(D) Poor	(D) Poor	No
#18 1st Ave	No	N/A	Yes	(C) Fair	No	N/A	Yes	(D) Poor	(C) Fair	(C) Fair	Yes
#19 2nd Ave	No	N/A	Yes	(D) Poor	Yes	(B) Good	Yes	(C) Fair	(C) Fair	(C) Fair	Yes
#20 Cove Beach	Yes	(B) Good	No	N/A	No	N/A	Yes	(C) Fair	(C) Fair	(C) Fair	No

ASSESSMENT LEGEND:

- A = EXCELLENT CONDITION / GREAT PEDESTRIAN SAFETY**
- B = GOOD CONDITION / DECENT PEDESTRIAN SAFETY**
- C = FAIR CONDITION / FAIR PEDESTRIAN SAFETY**
- D = POOR CONDITION / POOR PEDESTRIAN SAFETY**
- F = FAILING CONDITION / DANGEROUS FOR PEDESTRIANS**

Appendix C

Condition Photo Pages

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Photo #1 – Deteriorated timber bulkhead at Promenade East End.



Photo #2 – Concrete deterioration on Madison Ave.



Photo #3 - Deteriorated concrete steps.



Photo #4 - Efflorescence on ramp walls.



Photo #5 – Deteriorated concrete.



Photo #6 – Tripping hazard at top of ramp.



Photo #7 - Existing stone seawall running parralle to promenade.



Photo #8 - Large concrete spall.



Photo #9 – Concrete cracking and delamination.



Photo #10 – Concrete cracking and delamination.



Photo #11 – Asphalt walking surface. Fair conditon.



Photo #12 – Concrete spalling and exposed rebar.



Photo #13 – Tripping hazards on promenade.



Photo #14 – Concrete cracking and delamination.



Photo #15 - Area where the promande walking surface has been redone.



Photo #16 - Sinkhole formation behind failing timber bulkhead.



Photo #17 - Failing timber bulkhead on south side of the promenade on the West End.



Photo #18 - Settlement behind failing timber bulkhead.



Photo #19 – Gratn St Comfort Station.



Photo #20 – Inside Grant St comfort station.



Photo #21 – Failing timber bulkhead on along Beach Avenue.



Photo #22 – Failing timber bulkhead along Beach Avenue.

Appendix D

Cost Estimates

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Applicant/ Entity Name: City of Cape May
Project Title: Cape May Promenade - Preservation / Restoration Project

Cost Estimate

Costs by category (only eligible costs are to be included)

Costs

Line #	Category	Projected Cost
1	Cost of new construction	\$7,997,500.00
2	Land Acquisition	
3	Cost of rehabilitation and/or renovation to an existing boardwalk	\$9,865,330.00
4	Architectural, engineering, planning, legal, financial, inspection, permit fees, or other professional services	\$3,247,609.50
5	Equipment and Fixtures	
6	Cost of barrier-free improvements	\$3,797,900.00
7	Hazardous materials abatement and/or remediation	
8	Personnel costs required for carrying out Boardwalk Fund Preservation Project	
9	Other	
	TOTAL PROJECT COST:	\$24,898,339.50
	MATCH AMOUNT:	\$2,489,833.95
	BPF FUNDING REQUESTED:	\$22,408,505.55



Applicant/ Entity Name: City of Cape May
Project Title: Cape May Promenade - Preservation / Restoration Project

Year 1 (2024) Cost Estimate

Costs by category (only eligible costs are to be included)

Costs

Line #	Category	Projected Cost
1	Cost of new construction	
2	Land Acquisition	
3	Cost of rehabilitation and/or renovation to an existing boardwalk	
4	Architectural, engineering, planning, legal, financial, inspection, permit fees, or other professional services	\$1,082,536.50
5	Equipment and Fixtures	
6	Cost of barrier-free improvements	
7	Hazardous materials abatement and/or remediation	
8	Personnel costs required for carrying out Boardwalk Fund Preservation Project	
9	Other	
	TOTAL YEAR 1 COST:	\$1,082,536.50



Applicant/ Entity Name: City of Cape May
Project Title: Cape May Promenade - Preservation / Restoration Project

Year 2 (2025) Cost Estimate

Costs by category (only eligible costs are to be included)

Costs

Line #	Category	Projected Cost
1	Cost of new construction	
2	Land Acquisition	
3	Cost of rehabilitation and/or renovation to an existing boardwalk	\$4,096,830.00
4	Architectural, engineering, planning, legal, financial, inspection, permit fees, or other professional services	\$788,473.00
5	Equipment and Fixtures	
6	Cost of barrier-free improvements	\$3,787,900.00
7	Hazardous materials abatement and/or remediation	
8	Personnel costs required for carrying out Boardwalk Fund Preservation Project	
9	Other	
	TOTAL YEAR 2 COST:	\$8,673,203.00



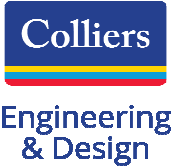
Applicant/ Entity Name: City of Cape May
Project Title: Cape May Promenade - Preservation / Restoration Project

Year 3 (2026) Cost Estimate

Costs by category (only eligible costs are to be included)

Costs

Line #	Category	Projected Cost
1	Cost of new construction	\$7,997,500.00
2	Land Acquisition	
3	Cost of rehabilitation and/or renovation to an existing boardwalk	\$5,768,500.00
4	Architectural, engineering, planning, legal, financial, inspection, permit fees, or other professional services	\$1,376,600.00
5	Equipment and Fixtures	
6	Cost of barrier-free improvements	
7	Hazardous materials abatement and/or remediation	
8	Personnel costs required for carrying out Boardwalk Fund Preservation Project	
9	Other	
	TOTAL YEAR 3 COST:	\$15,142,600.00



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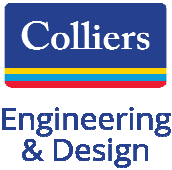
**CAPE MAY PROMENADE - PRESERVATION PROJECT
 PROJECT COST ESTIMATE
 YEAR 1 (2024) - ENGINEERING, PERMITTING, PROJECT AWARD
 DATE PREPARED: OCTOBER 25, 2023**

ITEM	DESCRIPTION	UNIT	TOTAL QTY.	UNIT PRICE	COST
1	PHASE 1 DESIGN - ENGINEERING, PERMITTING, PERMIT FEES, INSPECTION, PROFESSIONAL SERVICES (5% OF PHASE 1 CONSTRUCTION ESTIMATE)	LS	1	\$ 394,236.50	\$ 394,236.50
2	PHASE 2 DESIGN - ENGINEERING, PERMITTING, PERMIT FEES, INSPECTION, PROFESSIONAL SERVICES (5% OF PHASE 2 CONSTRUCTION ESTIMATE)	LS	1	\$ 688,300.00	\$ 688,300.00
ESTIMATED TOTAL (YEAR 1):					\$ 1,082,536.50

NOTES:

THE FEES ABOVE ARE BASED ON A 5% DESIGN, PERMITTING, ETC. FEE. IF THE GRANT IS ONLY PARTIALLY APPROVED AT A LOWER TOTAL BUDGET THE FEE WOULD BE DECREASED ACCORDINGLY TO STAY AT 5% OF THE TOTAL CONSTRUCTION COST AS A BUDGET ESTIMATE.

THE COST ESTIMATE ABOVE IS AN APPROXIMATION OF THE ANTICIPATED CONSTRUCTION COSTS BASED ON RECENT CONTRACTOR BID PRICES. THE UNIT PRICES ASSUME THAT THE CONTRACTOR WILL PAY STATE WAGES ON THIS PROJECT IN CONFORMANCE WITH NEW JERSEY PREVAILING WAGE RATE ACT AS WELL AS FEDERAL WAGES IN ACCORDANCE WITH THE DAVIS-BACON ACT. COLLIERS ENGINEERING & DESIGN CANNOT AND DOES NOT GUARANTEE THAT PROPOSALS, BIDS, OR ACTUAL COSTS WILL NOT VARY FROM THESE ASSUMED PROPABLE COSTS.



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CAPE MAY PROMENADE - PRESERVATION PROJECT

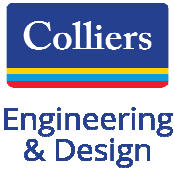
PROJECT COST ESTIMATE

YEAR 2 (2025) - PHASE 1 PROMENADE PRESERVATION - ADA IMPROVEMENTS & REHABILITATION

DATE PREPARED: OCTOBER 25, 2023

ITEM	DESCRIPTION	UNIT	TOTAL QTY.	UNIT PRICE	COST
1	MOBILIZATION	LS	1	\$ 175,000.00	\$ 175,000.00
2	SHOP DWGS, SURVEY	LS	1	\$ 45,000.00	\$ 45,000.00
3	SITE PROTECTION / MPT	LS	1	\$ 125,000.00	\$ 125,000.00
4	SITE DEMOLITION/CLEARING	LS	1	\$ 250,000.00	\$ 250,000.00
5	RESURFACE ASPHALT WALKING SURFACE	SF	131,731	\$ 12.00	\$ 1,580,772.00
6	COAT WALKING SURFACE	SF	131,731	\$ 4.00	\$ 526,924.00
7	CONCRETE REPAIRS TO ROAD SIDE WALL	LF	6,251	\$ 120.00	\$ 750,120.00
8	PROTECTIVE CONC. COATING TO ROADSIDE WALL	SF	28,519	\$ 6.00	\$ 171,114.00
9	REPLACE EXIST. TIMBER BULKHEAD	LF	1,004	\$ 1,450.00	\$ 1,455,800.00
10	REPAIR / REHAB EXISTING ADA RAMP	EA	10	\$ 50,000.00	\$ 500,000.00
11	NEW ADA ACCESS RAMP	EA	6	\$ 295,000.00	\$ 1,770,000.00
12	FLOOD PROOF / REHAB COMFORT STATIONS	EA	3	\$ 150,000.00	\$ 450,000.00
13	SITE CLEAN-UP AND CLOSE OUT	LS	1	\$ 85,000.00	\$ 85,000.00
NOTES:					SUBTOTAL: \$ 7,884,730.00
					CONSTRUCTION ADMINISTRATION / INSPECTION (10%): \$ 788,473.00
					ESTIMATED TOTAL (PHASE 1): \$ 8,673,203.00

THE COST ESTIMATE ABOVE IS AN APPROXIMATION OF THE ANTICIPATED CONSTRUCTION COSTS BASED ON RECENT CONTRACTOR BID PRICES. THE UNIT PRICES ASSUME THAT THE CONTRACTOR WILL PAY STATE WAGES ON THIS PROJECT IN CONFORMANCE WITH NEW JERSEY PREVAILING WAGE RATE ACT AS WELL AS FEDERAL WAGES IN ACCORDANCE WITH THE DAVIS-BACON ACT. COLLIERS ENGINEERING & DESIGN CANNOT AND DOES NOT GUARANTEE THAT PROPOSALS, BIDS, OR ACTUAL COSTS WILL NOT VARY FROM THESE ASSUMED PROPABLE COSTS.



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CAPE MAY PROMENADE - PRESERVATION PROJECT

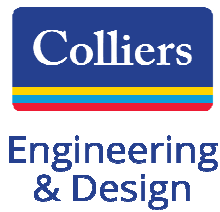
PROJECT COST ESTIMATE

YEAR 3 (2026) - PHASE 2 PROMENADE PRESERVATION - PROMENADE WIDENING & HEIGHT EXTENTION CAP

DATE PREPARED: OCTOBER 25, 2023

ITEM	DESCRIPTION	UNIT	TOTAL QTY.	UNIT PRICE	COST
1	MOBILIZATION	LS	1	\$ 175,000.00	\$ 175,000.00
2	SHOP DWGS, SURVEY	LS	1	\$ 35,000.00	\$ 35,000.00
3	SITE PROTECTION / MPT	LS	1	\$ 125,000.00	\$ 125,000.00
4	SITE DEMOLITION/CLEARING	LS	1	\$ 425,000.00	\$ 425,000.00
5	NEW SEAWALL HEIGHT EXTENSION CAP	LF	6,060	\$ 1,250.00	\$ 7,575,000.00
6	PROMENADE WIDENING W/ STEEL BULKHEAD SEAWALL	LF	2,970	\$ 1,800.00	\$ 5,346,000.00
7	SITE CLEAN-UP AND CLOSE OUT	LS	1	\$ 85,000.00	\$ 85,000.00
NOTES:					SUBTOTAL: \$ 13,766,000.00
					CONSTRUCTION ADMINISTRATION / INSPECTION (10%): \$ 1,376,600.00
					ESTIMATED TOTAL (PHASE 2): \$ 15,142,600.00

THE COST ESTIMATE ABOVE IS AN APPROXIMATION OF THE ANTICIPATED CONSTRUCTION COSTS BASED ON RECENT CONTRACTOR BID PRICES. THE UNIT PRICES ASSUME THAT THE CONTRACTOR WILL PAY STATE WAGES ON THIS PROJECT IN CONFORMANCE WITH NEW JERSEY PREVAILING WAGE RATE ACT AS WELL AS FEDERAL WAGES IN ACCORDANCE WITH THE DAVIS-BACON ACT. COLLIERS ENGINEERING & DESIGN CANNOT AND DOES NOT GUARANTEE THAT PROPOSALS, BIDS, OR ACTUAL COSTS WILL NOT VARY FROM THESE ASSUMED PROPABLE COSTS.



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CAPE MAY PROMENADE - PRESERVATION PROJECT		
PROJECT COST ESTIMATE		
TOTAL GRANT SUMMARY PER YEAR		
DATE PREPARED: OCTOBER 25, 2023		
ITEM	DESCRIPTION	COST
1	YEAR 1 (2024) - ENGINEERING, PERMITTING, PROJECT AWARD	\$ 1,082,536.50
2	YEAR 2 (2025) - PHASE 1 PROMENADE PRESERVATION - ADA IMPROVEMENTS & REHABILITATION	\$ 8,673,203.00
3	YEAR 3 (2026) - PHASE 2 PROMENADE PRESERVATION - PROMENADE WIDENING & HEIGHT EXTENTION CAP	\$ 15,142,600.00
TOTAL PROJECT ESTIMATE:		\$ 24,898,339.50

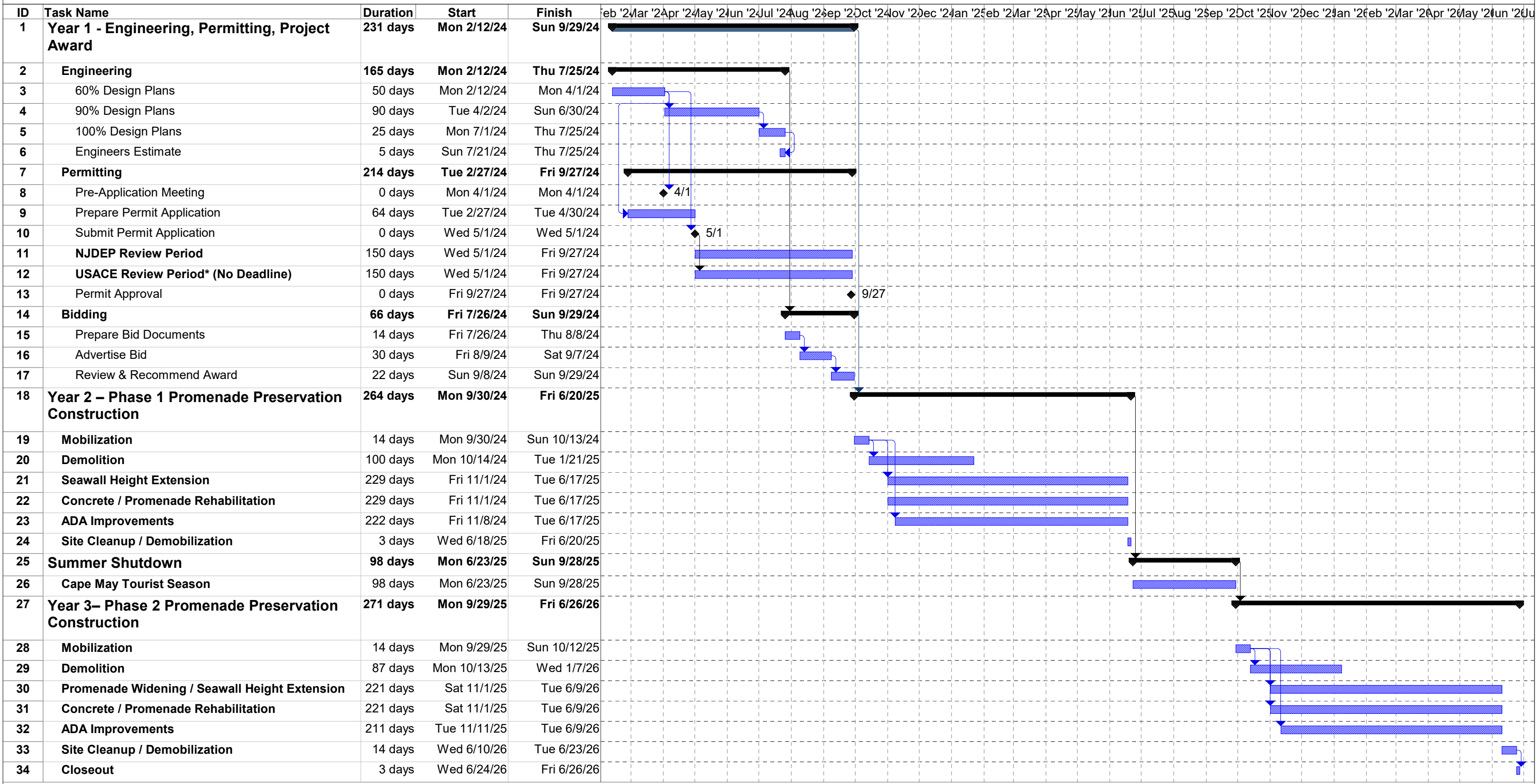
CITY MATCH AMOUNT (10%):	\$ 2,489,833.95
BPF FUNDING REQUESTED:	\$ 22,408,505.55

Appendix E

Project Schedule

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**The Cape May Promenade
Preservation / Restoration Project
City of Cape May, Cape May County, New Jersey**



Project: The Cape May Promenade Preservation / Restoration Project No.: 23012332G	Task		Project Summary		Inactive Task		Duration-only		Finish-only		Progress
	Split		External Tasks		Inactive Milestone		Manual Summary Rollup				Deadline
	Milestone		External Milestone		Inactive Summary		Manual Summary				
	Summary		Inactive Task		Manual Task		Start-only				