

# TOWN OF YARMOUTH

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Department of  
Community  
Development

To: Tracy Post, Chairman - Board of Selectmen

From: James K. Saben, Chairman - Drive-In Site Utilization Committee

Date: May 16, 2018

Re: DISUC Findings and Recommendations

At the request of the Board of Selectmen, the Drive-In Site Utilization Committee (DISUC) has completed their March 21, 2017 Charge and have prepared findings and recommendations for consideration by the Board regarding the future utilization of the former Drive-In Site (669 Route 28). These findings and recommendations were reached after a twelve month public process that included oversight of the Riverwalk and Boardwalk Feasibility/Conceptual Design Study conducted by the Town's Consultant, BETA, in conjunction with Town Staff.

The Committee is currently made up of six members, including Jim Saben (Chairman), Tom Roche (Vice Chairman), Jack McCormack, Rich Bilski, David Reid, and Peter Slovak. Alternate non-voting members are Bud Nugent and Dave Helberg.

After consideration of the information provided by the consultant, Town Staff, and input from the public, both at public meetings and through written comments, the Committee offers the recommendations below regarding the future utilization of the Drive-In Site. Additional information regarding these recommendations is provided starting on page 7 in the section titled "COMMITTEE FINDINGS AND RECOMMENDATIONS". In making their recommendations, three loosely defined areas are referenced, intending to allow for flexibility in the final designs and integration of the three areas into the one final product:

- "Drive-In Area" – in which we include the previously cleared and gravel area where the original drive functioned;
- "River Walk Area" - which encompasses the area east of the Drive-In Area and extends along the Parkers River; and
- "Marsh land area" – which is the area south of the Drive-In Site, extending to Sea Gull beach.

Please note that the term "Drive-In Site" shall refer to the entire parcel (comprised of the Drive-In Area and the River Walk Area) as taken by the Town in 1985.

## **RECOMMENDATIONS:**

1. Retain the Drive-In Site for its originally intended use as Recreation and do not pursue Article 97 disposal of any portion of the property.
2. Establish use of the Drive-In Area for festivals and special events. Determine minimum improvements, costs and funding needed for the Drive-In Area to facilitate events and festivals at the site, while retaining compatibility with future construction of the Riverwalk Park.
3. Move forward with the Riverwalk Park - DISUC Preferred Concept Plan, dated January 2018 (see below “Preferred Riverwalk Park rendering”). Understanding funding limitations, development of the Riverwalk Park may need to be phased with priority assigned as follows: construction of the driveway access, parking, restrooms, kayak launch, picnic areas, vegetation restoration, nature walks and signage. The remaining amenities can be incorporated over time as additional funds or grants are obtained.
4. Move forward with a Boardwalk, with the ultimate configuration to be determined. The Committee unanimously agreed that some form of a boardwalk is central to the success of the project and the concept of creating a year-round, daily draw to the site and the area. To that end, and understanding that a boardwalk is an important component for creating a destination location in conjunction with the Riverwalk Park, the Committee was unanimously in favor of the inclusion of a Boardwalk “loop” (see Boardwalk Option 1C below). Three of five members present at the April 11<sup>th</sup> meeting, also voted to pursue Boardwalk Option 2 (see Boardwalk Option 2 below) which includes the loop and travels across the marsh to Seagull Beach. This vote was made with the understanding that boring data, permitting and funding may limit the full construction of the boardwalk across the marsh, but that this could be decided as the project moves forward.
5. Design and permit the Riverwalk Park and Boardwalk at the same time and move forward with development of each as funding permits.

## **SUMMARY AND NEXT STEPS:**

Underlying each of these recommendations is the desire to use the Drive-In site to create a destination location for our visitors and Yarmouth residents alike throughout the year and to energize the area, creating a draw through public investment that will encourage private development. It is also important to note that the Committee’s recommendations are to be phased – with efforts initially focused on improving the site for utilization for festivals and events. Subsequent pursuit of the Riverwalk Park and Boardwalk Concepts will require additional funding to develop more detailed plans and cost estimates, particularly for the Boardwalk.

With regards to the Riverwalk Park and Boardwalk, please note that the Committee discussed at length whether the two components should be pursued concurrently or separately, ultimately agreeing that permitting agents would look to review the project holistically, even if the plan were to phase the implementation of a Boardwalk. That said, the Committee understands that the Town faces financial constraints and makes these recommendations knowing that additional planning efforts as well as the ultimate site improvements are subject to available funding being identified.

Should the Board of Selectmen choose to pursue the Committee’s recommendations, the next steps are:

1. Finalize the design of short-term site improvements needed to promote use of the Drive-In Area for events and festivals, develop cost estimates, identify and obtain funding for these improvements, and construct these improvements. Work with the Department of Public

Works and other Town Departments to determine if some work items can be completed by Town Staff.

2. Boardwalk:
  - a. If Option 2 (the Boardwalk that travels across the marsh) is chosen, borings and geotechnical information will be required to determine the actual depth to peat which is critical to the foundation design and is needed to ensure an accurate construction cost estimate. If the peat is significantly deeper than the assumed average 15' depth, construction of the boardwalk across the marsh may be more costly than originally projected. Borings are estimated at \$40,000 and will require additional funding to be identified for this purpose.
  - b. If Option 1C (the Northside Loop only) is chosen, conduct additional hand probes in the area to confirm that the average peat depth is no more than 15' deep. This will give a better understanding of the accuracy of the cost information. Full depth borings can then be conducted at a later date.
3. Once the Boardwalk decision is finalized, move forward with obtaining funding for design, permitting and updated cost estimates for the Riverwalk Park and chosen Boardwalk option.
4. Pursue funding opportunities for the Riverwalk Park and Boardwalk.

## **CONCLUSIONS**

Recommendations to pursue event/festival spaces as well as a Riverwalk Park and Boardwalk have been made based on thoughtful consideration of input and feedback from the Committee, Staff, and the Public on a variety of options, amenities and materials as presented by our consultants. The Committee understands that the Boardwalk component is controversial, but is unanimous in the belief that a Boardwalk is central to the success of the project and that it will serve as a year round, daily draw to the site.

The Drive-In Site and Marsh land to the south present an exciting opportunity for the Town to take advantage of a large piece of land to provide direct and indirect benefits to residents and visitors alike. Located centrally on our Route 28 Corridor, the property can serve as a draw to residents and visitors, serving as a source of pride for the Community and as a business generator for the Business Community.

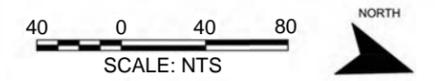
# RIVERWALK PARK - DISUC PREFERRED CONCEPT PLAN

Riverwalk Park & Boardwalk Feasibility/Concept Plan

Yarmouth, MA



January 2018 CELEBRATING 35 YEARS



# RIVERWALK BOARDWALK

Riverwalk Park & Boardwalk Feasibility/Concept Plan

Yarmouth, MA

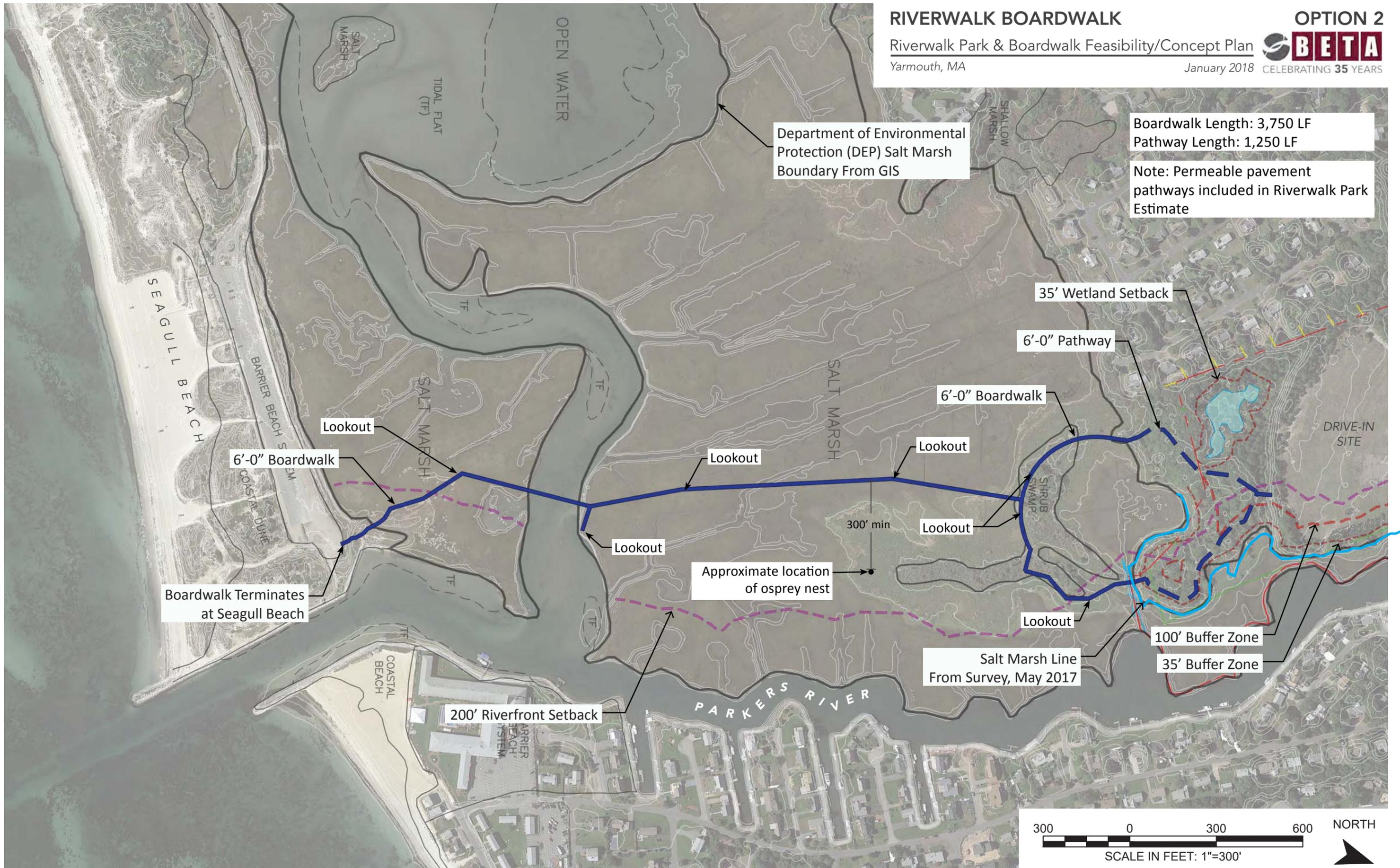
OPTION 2



January 2018 CELEBRATING 35 YEARS

Boardwalk Length: 3,750 LF  
Pathway Length: 1,250 LF

Note: Permeable pavement pathways included in Riverwalk Park Estimate



# RIVERWALK BOARDWALK

Riverwalk Park & Boardwalk Feasibility/Concept Plan

Yarmouth, MA

OPTION 1C



May 2018 CELEBRATING 35 YEARS

Boardwalk Length: 1,140 LF

Pathway Length: 1,130 LF

Note: Permeable pavement pathways included in Riverwalk Park Estimate

Department of Environmental Protection (DEP) Salt Marsh Boundary From GIS

35' Wetland Setback

6'-0" Pathway

6'-0" Boardwalk

Approximate location of osprey nest

Lookout

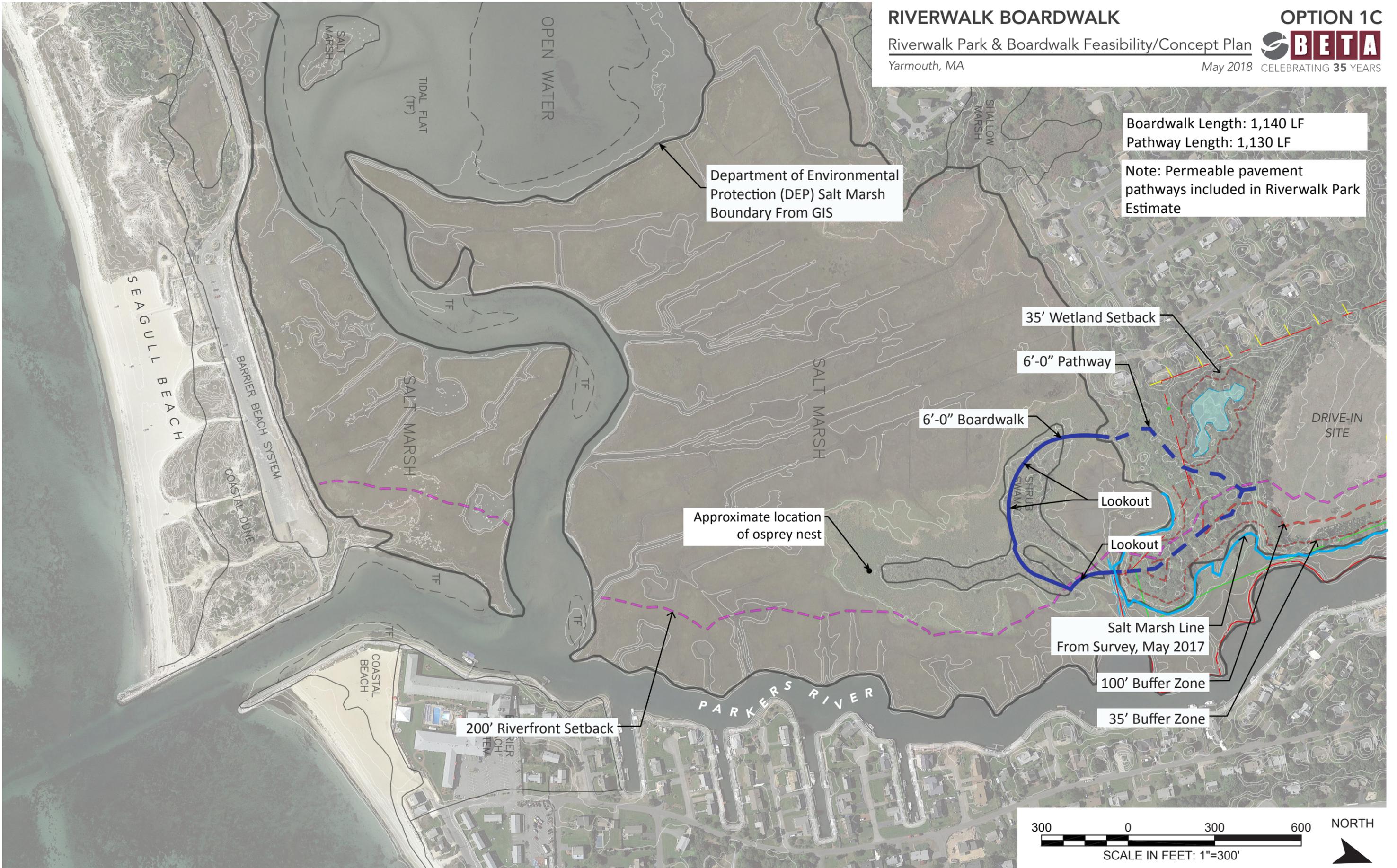
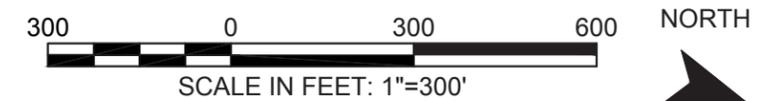
Lookout

Salt Marsh Line From Survey, May 2017

100' Buffer Zone

35' Buffer Zone

200' Riverfront Setback



## **COMMITTEE FINDINGS AND RECOMMENDATIONS:**

Summarized below are the Committee's Findings and Recommendations that were developed over the course of 12 months and 17 meetings (see attached Meeting Schedule). In addition to evaluating optional uses for the Drive-In Area, the Committee worked on the development of concept plans and visualizations for the Riverwalk Park and Boardwalk options; solicitation of public input; identification of issues and constraints along with potential resolutions; detailing permit requirements, and outlining various project costs including development, construction and maintenance costs.

### **1. RECREATIONAL USE:**

Although the Committee considered revisiting the possibility of a Marina in conjunction with mixed use development, the Committee ultimately voted 5-0 to preserve the Recreational nature of the entire site and NOT to pursue any Article 97 disposition to sell or dispose of any portion of the property for private or commercial uses. This vote was based on the original 1985 Town Meeting vote, the need for centrally located activities for residents and visitors, and the unique opportunity that this property presents for the Town. In their discussions, the Committee also acknowledged that the site was too small to accommodate a mixed use development in conjunction with a private marina. The Committee further clarified that their vision for "Recreational Uses" on the property was primarily for events and festivals. This use will benefit the Town by creating economic opportunities that complement the Town's character and which will also foster community pride by establishing a popular destination.

The ramifications of this vote are significant in that the likely funding sources for the Riverwalk Park and Boardwalk would place permanent restrictions on the use of the site, and could require payback should those restrictions be removed. The decision to retain the entire site for Recreational use also precludes the need for a subdivision. The subdivision component of the feasibility study had been intended to divide the parcel so that Community Preservation Act funds could be directed to the Riverwalk Park without placing a recreation restriction on the remainder of the land.

### **2. INTERIM USE**

Part of the Committee's charge tasked them with looking at interim uses for the Drive-In Area outside the Riverwalk Park area, the idea being to start using this long vacant property by making minimal improvements and help to revitalize the area in the short term.

We were fortunate in that the recent Irish Festival presented a very good opportunity to test drive the site as a venue for festivals/special events. Working with the event organizers, Staff have identified a number of improvements that would be desirable to event sponsors, including: grading and greening of the site, creating an informal parking area, upgrading electrical and water service, and potentially adding Wi-Fi capacity to the site for vendors. These initial improvements do not include restroom facilities, but the Committee recognizes that these might be added at some point in the future. The next step will be to develop cost estimates for these improvements and to identify possible funding sources including, but not limited to, Tourism Revenue Preservation and Community Preservation Act Funds.

Understanding that improvements to the site to facilitate events/festivals would also establish the site as an informal park, and in light of the Committee's above recommendation regarding retaining

the Recreational nature of the site, the Committee's recommendation regarding the interim use of the site is actually a recommendation for the permanent use of the site primarily for events/festivals.

### **3. RIVERWALK PARK:**

**Concept Plan and Materials:** A detailed process was undertaken to further develop the initial sketch that was developed as part of the DISUC original recommendation to the Board of Selectmen in September 2015 for a Riverwalk Park at the former Drive-In Site, refining it into three Concept Sketches that were presented at two public outreach meetings to garner input from the public (see attached Riverwalk Park Concept Options A, B & C, dated May 2017). This process resulted in the attached Riverwalk Park – DISUC Preferred Concept Plan, dated January 2018. This Preferred Concept Plan was also presented to the public at an April 2, 2018 public meeting.

Amenities proposed include access road with utilities, pedestrian beacon across Route 28, 82 parking spaces, walking pathways including paved woodland trails, solar trash compactors, decorative lighting, landscaping, groomed lawn area with fabric sail shade structures for events, a variety of seating options, interactive/natural playscapes, kayak launch with vendor trailer and location for leased storage, traditional restrooms along with a porta john enclosure near the kayak launch, space for future artist tents or shanties, and interpretive signage and kiosks including educational component at the existing shellfish upweller. Prominent wayfinding signage and kiosks to inform and direct visitors and residents to other Town attractions including, but not limited to beaches, major roads, shopping areas, the Cultural Center of Cape Cod, Town Hall, etc., should be included. A "You Are Here" sign is a valuable amenity to a visitor who is unfamiliar with the area.

Preferred materials for use at the park that would minimize maintenance costs were considered and selected by the Committee. These material choices were then used in the development of cost estimates. Refer to the attached Riverwalk Park and Boardwalk Materials List, updated September 20, 2017.

**Permitting:** There are multiple protected natural resources on the entire Drive-In Site. These include salt marsh, coastal dune, isolated wetlands, 200' riverfront area adjacent to Parkers River, floodplain and river bank. The Drive-In Site is already partially developed/disturbed, lessening some of the permitting requirements when being redeveloped. Resource areas were taken into consideration during the design of the park and the project includes landscaping restoration within the riverfront area to help protect the salt marsh and river resources.

Key permitting programs for the Riverwalk Park include: Massachusetts Environmental Policy Act (MEPA); Wetlands Protection Act & Yarmouth Wetlands By-Law; Cape Cod Commission – Development of Regional Impact (DRI); and Chapter 91 License & Army Corp of Engineers MA Programmatic General Permit for the kayak dock.

Our consultant, BETA, has had extensive experience permitting such projects and their conclusion was that there are no significant regulatory or site constraints that would preclude the redevelopment of the site as a Riverwalk Park.

**Hard and Soft Cost Information & Potential Funding Sources:** Utilizing the preferred Concept Plan and Material List, BETA developed opinions of probable construction costs and soft costs for the project which are summarized in the Table below. The construction costs are broken into separate estimates for the access road and the Riverwalk Park to maximize alternative funding sources. As the project is in the concept stage, a healthy 25% contingency has been included, as

well as a 5% escalation contingency for future construction. As with any project, delays in the project timeline could have serious impacts to the overall project costs. Being a Town project, consideration for state wage rates have been included in the construction estimates. Refer to the attached BETA cost estimates dated January 17, 2018 for the “Subdivision Entrance Drive” and the “Riverwalk Park (Preferred Concept)” for a more detailed breakdown of construction costs.

Also shown in the Summary of Project Costs table below are development costs which include preliminary design, final design, permitting, bidding services and construction administration. A 20% contingency has been added to these soft costs. Refer to the attached BETA “Riverwalk Park (Preferred Concept) Soft Costs Estimate” for more detailed information.

<b>SUMMARY OF PROJECT COSTS RIVERWALK PARK AND ACCESS ROAD</b>		
<b>DESCRIPTION</b>	<b>SUBTOTALS</b>	<b>TOTALS</b>
<b>CONSTRUCTION COSTS:</b>		
Access Road - Opinion of Probable Const. Costs		
Access Road & Utilities	\$ 877,150	
25% Contingency	\$ 219,288	
5% Escalation Contingency	\$ 43,858	
<b>Access Road &amp; Utilities Construction Costs:</b>		<b>\$ 1,140,295</b>
Opinion of Probable Construction Costs - Riverwalk Park		
Riverwalk Park & Woodland Paths	\$ 2,508,255	
25% Contingency	\$ 627,064	
5% Escalation Contingency	\$ 125,413	
<b>Riverwalk Park Construction Costs</b>		<b>\$ 3,260,732</b>
<b>DEVELOPMENT COSTS (design, permitting, bidding &amp; construction administration):</b>		
Access Road	\$ 55,000	
Subdivision Permitting (existing contract – not recommended)	\$ 15,624	
Riverwalk Park	\$ 270,000	
20% Development Contingency	\$ 68,125	
<b>TOTAL ESTIMATED FOR DEVELOPMENTS COSTS:</b>		<b>\$ 408,749</b>
<b>TOTAL ESTIMATED RIVERWALK DEVELOPMENT &amp; CONSTRUCTION:</b>		<b>\$ 4,809,775</b>

There are a variety of funding sources and grant opportunities for the park that will be investigated should the project move forward. These include Community Preservation Act (CPA) funds, Tourism Revenue Preservation Funds, State Recreation Funds through the Division of Conservation Services, Seaport Grants, Transportation Funds, Parkland Acquisitions and Renovations for Communities (PARC) Grant Program, and MassDevelopment. CPA funding often provides a source of matching funds required by other grant programs.

**Riverwalk Park Maintenance Costs and Potential Revenue Sources:**

Utilizing knowledge of maintenance requirements at other Town facilities, Town Staff developed an estimate of average annual maintenance costs for the Riverwalk Park as outlined in the attached “Estimated Average Annual Maintenance Costs” table. At approximately \$31,000 per year, these

maintenance costs could be partially offset with potential revenue sources such as leasing to a kayak vendor, rentals for kayak storage, special event fees at the Riverwalk Park, pay and display parking, adopt a park program and naming rights/sponsorships.

**Public Comments:** Although most of the public comments garnered throughout the feasibility and conceptual design study process were related to the Boardwalk, there were some related to the Riverwalk Park. Park related issues included traffic and pedestrian safety; security and crime prevention; safety of kayak usage on the Parkers River; and the cost versus benefit of the park.

The Committee utilized this input to modify the park design to the extent possible to help mitigate these concerns as outlined in the attached Riverwalk Park and Boardwalk Noted Concerns, updated April 6, 2018, which identifies the issues and proposed mitigation measures. Some design components that address these issues include a flashing pedestrian beacon at Route 28 and elevated crosswalks within the parking area; inclusion of right & left turning lanes at the exit; security measures such as a lighting, ability to patrol the park from a police vehicle, and landscaping design to promote visibility; and promoting kayak safety with an educational kiosk.

#### **4. BOARDWALK OPTIONS:**

**Boardwalk Options and Materials:** As was done with the Riverwalk Park, three Boardwalk alignment options were developed and presented to the public at two public outreach meetings. The concepts included two options that traversed over the marsh to reach Seagull Beach and one that was a loop and short spur from the southern end of the Drive-In property that would not extend over the marsh (refer to attached Boardwalk Concept Sketches, dated May 2017).

The public meeting resulted in a number of concerns being raised that related to the visual impacts of the boardwalk on the nearby Gateway Isles neighborhood. To better understand the visual impact to the residents on the east side of the River, a site visit was conducted on July 31, 2017 where staff from the DNR were present on the marsh to try to help in visualizing what the boardwalk might look like from the Gateway Isles neighborhood. This site visit resulted in some revisions to the Boardwalk alignments to move the boardwalk further from an osprey nest and away from sections of the Gateway Isles neighborhood. These revisions and other public comments, including an optional spur traveling north from Seagull Beach, were ultimately memorialized in the attached Riverwalk Boardwalk Option 1, Option 2 and Option 3, dated January 2018. Using these revised alignments, BETA was engaged to prepare photo-visualizations of what the three Boardwalk alignments might look like from the Gateway Isles neighborhood, which were presented at multiple public meetings. For your information, we have included three 11x17 Boardwalk Visualizations depicting the three boardwalk options as they would be seen from the end of Cape Isle Drive. View 1 is looking northwest towards the drive-in property, View 2 is looking west directly across the marsh, and View 3 is looking southwest towards Seagull Beach. Realizing these visuals are hard to see in smaller scale, large scale boards and the full panoramic view will be available at the Board of Selectmen meeting.

As with the Riverwalk Park, preferred materials and amenities for the Boardwalk were developed. Refer to the attached Riverwalk Park and Boardwalk Materials List, updated September 20, 2017. The preferred Boardwalk design incorporates a 6' wide boardwalk made of Brazilian hardwood with wooden railings flared out on the sides. The boardwalk will include a number of outlooks with grating and interpretive signage. The boardwalk over the marsh would have a helical anchor foundation with the boardwalk located 6' above the marsh to prevent shading. The raised

boardwalk over the creek crossing would have an 8' clearance from the high water level to allow for the limited boat access and would be constructed on pilings. The entire boardwalk would be handicapped accessible.

**Permitting:** A proposed boardwalk would traverse over multiple protected natural resources including the tidal creek to Lewis Pond and potential rare wetland wildlife and priority habitats for rare species. Key permitting programs for the Riverwalk Park include: Massachusetts Environmental Policy Act (MEPA); Wetlands Protection Act & Yarmouth Wetlands By-Law; Cape Cod Commission – Development of Regional Impact (DRI); and Chapter 91 License for the creek crossing & Army Corp of Engineers for the boardwalk and navigation.

Although there are multiple environmental permits required for the project, boardwalks are allowed over such resource areas if properly designed. Although the permitting for the Boardwalk (especially the options traversing over the marsh and creek) would be more involved than for the Riverwalk Park and will include a number of opportunities for appeal, our consultant, BETA, has concluded that there are no significant regulatory or site constraints that would preclude the development of a raised Boardwalk. Permitting for Option 1C may be more palatable to abutting neighbors, making it easier to permit. However, Option 2 traversing the marsh provides more of a destination draw and could foster more year-round use of the area.

**Hard and Soft Cost Information & Potential Funding Sources:** BETA developed opinions of probable construction costs and soft costs for the three Boardwalk options, including a healthy 25% contingency and 5% escalation contingency for future construction, as outlined in the Table below. Being a Town project, state wage rates have been included in the construction estimates. One of the unknowns at this stage of the project is the depth of peat across the marsh which will impact the depth of the foundations. Proposals were obtained from BETA to conduct six borings across the marsh, but the cost was in excess of available funding. Limited information was obtained from two manual test probes conducted on the south side of the marsh. The first test probe showed the peat approximately 5' deep and the second test probe (closer to the channel) was closer to 12'. There may be some locations where the depth to peat is greater in the center of the marsh with less along the edges. The Committee decided to have BETA proceed with cost estimating assuming an average peat depth of 15' for the boardwalk and 20' deep for the channel crossing. Borings would need to be done in the future should the boardwalk portion of the project move forward with a final route.

Also shown in the Summary of Project Costs table below are development costs which include preliminary design, final design, permitting, bidding services and construction administration. A 20% contingency has been added to these soft costs.

SUMMARY OF PROJECT COSTS BOARDWALK OPTIONS					
DESCRIPTION	OPTION 1 North Side Loop; North & South Spurs	OPTION 1b North Side Loop & Spur	OPTION 1c North Side Loop Only	OPTION 2	OPTION 3
	Boardwalk: 1860'	Boardwalk: 1490'	Boardwalk: 1140'	Boardwalk: 3575'	Boardwalk: 3460'
	Channel: 0'	Channel: 0'	Channel: 0'	Channel: 175'	Channel: 200'
	Overlooks: 5	Overlooks: 4	Overlooks: 3	Overlooks: 7	Overlooks: 7
<b>Plank Materials:</b>	<b>Hardwood</b>	<b>Hardwood</b>	<b>Hardwood</b>	<b>Hardwood</b>	<b>Hardwood</b>
<b>CONSTRUCTION COSTS:</b>					
Boardwalk (6' wide, 20' helicals/5' embed)	\$ 1,377,400	\$ 1,103,100	\$ 846,600	\$ 2,637,750	\$ 2,551,400
Creek Crossing (6' wide, 40' pilings/20' embed)	\$ -	\$ -	\$ -	\$ 257,250	\$ 294,000
Railings (wood)	\$ 446,400	\$ 357,600	\$ 273,600	\$ 900,000	\$ 878,400
Overlooks (grating and wood railings)	\$ 43,000	\$ 34,400	\$ 25,800	\$ 60,200	\$ 60,200
Mobilization and Staging Area Prep	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000
25% Contingency	\$ 491,700	\$ 398,775	\$ 311,500	\$ 988,800	\$ 971,000
5% Escalation Contingency	\$ 122,925	\$ 99,694	\$ 77,875	\$ 247,200	\$ 242,750
Subtotal for Construction:	\$ 2,581,425	\$ 2,093,569	\$ 1,635,375	\$ 5,191,200	\$ 5,097,750
<b>DEVELOPMENT COSTS (design, permitting, bidding &amp; construction administration):</b>					
20% Development Contingency	\$ 55,000	\$ 55,000	\$ 55,000	\$ 63,000	\$ 63,000
Subtotal for Soft Costs:	\$ 330,000	\$ 330,000	\$ 330,000	\$ 378,000	\$ 378,000
<b>TOTAL REVISED ESTIMATED BOARDWALK DEVELOPMENT &amp; CONSTRUCTION:</b>	<b>\$ 2,911,425</b>	<b>\$ 2,423,569</b>	<b>\$ 1,965,375</b>	<b>\$ 5,569,200</b>	<b>\$ 5,475,750</b>

There are a variety of funding sources and grant opportunities for the park that will be investigated should the project move forward. These include Community Preservation Act (CPA) funds, Tourism Revenue Preservation Funds, State Recreation Funds through the Division of Conservation Services, Seaport Grants, and Parkland Acquisitions and Renovations for Communities (PARC) Grant Program. CPA funding often provides a source of matching funds required by other grant programs.

**Maintenance Costs and Potential Revenue Sources:** Working with Town Staff and BETA, an estimate of average annual maintenance costs for the Boardwalk Options were developed. General maintenance items could include periodic replacement of decking planks, railings and grating, as they age, split or warp. For budgetary purposes, an estimated average maintenance cost of \$5 per linear foot of boardwalk is being used as outlined in the table below. It should be noted that these general maintenance costs could be partially offset with the sale of engraved boardwalk planks. Based on current sales of planks at Bass Hole, plank sales could net approximately \$100 per plank.

Estimated Annual Maintenance Costs Boardwalk Options		
Boardwalk Option	Length (feet)	Estimates
Option 1– North Side Loop; North & South Spurs	1,860	\$9,300
Option 1b – North Side Loop & Spur	1,490	\$7,450
Option 1c – North Side Loop Only	1,140	\$5,700
Option 2	3,750	\$18,750
Option 3	3,660	\$18,300

These estimated costs would be for the average annual costs for general maintenance and do not account for more severe impacts to the Boardwalk associated with storm events.

**Public Comments:** The majority of public comments received on the project were related to Boardwalk. As with the Riverwalk Park, the Committee attempted to address these concerns in a myriad of ways. Refer to the attached Riverwalk Park and Boardwalk Noted Concerns, updated April 6, 2018, which identifies the issues and proposed mitigation measures.

A site visit and visualizations were prepared to help envision how the boardwalk options would look from the Gateway Isles neighborhood. The location of the boardwalk alignments were moved further away from the river and neighborhood to accommodate an osprey nest and neighborhood concerns. Environmental concerns will be adequately handled through the stringent environmental permitting process required for such projects. As noted previously, boardwalks are typically allowed if properly designed to mitigate environmental issues. The boardwalk height over the creek will also be addressed in permitting along with input from the Harbor Master. The wooden railing style was chosen in deference to abutter concerns about noise associated with wire cable railings. Trash receptacles will be located at both ends of the Boardwalk and the Boardwalk will be designed to allow for ATV and stretcher access for emergency personnel, as well as for handicapped accessibility.

**ATTACHMENTS:**

- Meeting Schedule, updated May 11, 2018
- Riverwalk Park Concept Options A, B & C, dated May 2017
- Riverwalk Park – DISUC Preferred Concept Plan, dated January 2018
- Riverwalk Park and Boardwalk Material List, updated September 20, 2017
- BETA Subdivision Entrance Drive - Order of Magnitude Estimate, January 17, 2018
- BETA Riverwalk Park (Preferred Concept) – Order of Magnitude Estimate, January 17, 2018
- BETA Riverwalk Park (Preferred Concept) Soft Costs Estimate
- Riverwalk Park Estimated Average Annual Maintenance Costs by Town Staff, January 16, 2018
- Noted Concerns Table, updated April 6, 2018
- Boardwalk Concept Sketches Presented at the 5/30 & 6/7/17 Public Meetings
- Revised Boardwalk Alignments Option 1, Option 2 and Option 3, dated January 2018
- Boardwalk Visualizations (three 11x17 sheets), dated October 2017

# **ATTACHMENTS:**

DRIVE-IN SITE UTILIZATION COMMITTEE  
MAY 2018 MEMO TO BOARD OF SELECTMEN

## Riverwalk Park & Boardwalk Feasibility and Conceptual Design Study

### MEETING SCHEDULE:

Updated May 11, 2018

#	Description	Attendance/Invitees	Purpose	Date*
1	Kick-off Meeting & Site Visit	Town Staff & DISUC & BETA	Kick-off Meeting with BETA to review purpose/process for study, discuss issues/concerns; ideas/amenities for concept designs; and conduct Site Visit	3/24
2	Three Preliminary Concept Sketches	Town Staff & DISUC & BETA	Review Preliminary Concept Sketches and provide input to BETA to further refine into Concept Sketches for stakeholder input. Discuss potential second survey.	5/2
3	Preparation and Organization Meeting	Town Staff & DISUC	Preparation for Public Information Meetings and selection of new Chairman/Vice Chairman	5/25
4 & 5	Public Input Meetings - Three Concept Sketches for Stakeholder Input	Conservation Commission Planning Board General Public/Neighbors Town Staff, DISUC & BETA	Public Presentations to garner public and stakeholder input on Concept Sketches and amenities.	5/30 and 6/7
6	Public Input Review	Town Staff & DISUC	Review public input comments and provide input to Staff regarding preferred Riverwalk Park alternative.	6/19
7	Concept Sketch of Preferred Riverwalk Park Sketch and Boardwalk Discussion	Town Staff & DISUC	Update on Riverwalk Park Preferred Alternative for costing purposes and preliminary discussion on Boardwalk Options.	7/10
8	Site Visits and Discussion on Visualizations for Boardwalk Options	Town Staff & DISUC	Site Visit to Drive-In Site and Cape Isle Drive. Discussion on photo-visualizations for the Boardwalk options.	7/31
9	Preferred Riverwalk Park Concept, Boardwalk Alignments and Materials	Town Staff & DISUC	Finalize Review of Preferred Riverwalk Park Concept and review Materials List for costing. Finalize Revised Boardwalk Alignments and Materials to be used in Visualizations.	8/23
10	Meeting Preparation & Interim Uses	Town Staff & DISUC	Preparation for Meeting with BOS and discussion on Interim Uses.	9/18
11	BOS Meeting	Board of Selectmen Town Staff & DISUC	Discuss status of DISUC work to date, outline next steps and garner BOS input.	9/26

\*Dates and Meeting Topics in Italics are Tentative

\*\* All meetings are open to the Public

## Riverwalk Park & Boardwalk Feasibility and Conceptual Design Study

### MEETING SCHEDULE:

Updated May 11, 2018

#	Description	Attendance/Invitees**	Purpose	Date*
12	Boardwalk Visualizations, Preferred Alignment and Supplemental Info	Town Staff & DISUC	Review Boardwalk Visualizations, discuss Preferred Alignment, discuss supplemental information required to accurately cost the Boardwalk, and Article 97 issues on Drive-In property.	12/7
13	Riverwalk Costs and Interim Uses	Town Staff & DISUC	Review cost information for the preferred Riverwalk Layout. Discuss Interim Uses. Boardwalk boring update.	1/24
14	Boardwalk Costs and Interim Uses	Town Staff & DISUC & BETA	Review cost information for the Boardwalk Options. Discuss schedule and public input meeting. Discuss Interim Uses.	2/13
15	Public Meeting (rescheduled from 3/13 due to weather)	Conservation Commission Planning Board General Public/Neighbors Town Staff, DISUC & BETA	Presentation of study information compiled to date to garner public input.	4/2
16	Discuss findings and recommendations for BOS	Town Staff & DISUC	DISUC discussion on public input and recommendations for presentation to BOS.	4/11
17	Discuss findings and recommendations for BOS (continued)	Town Staff & DISUC	Continue DISUC discussion on findings and recommendations, and prepare for presentation to BOS.	4/25
18	Presentation to BOS	Board of Selectmen Stakeholders Town Staff & DISUC BETA	Review study process to date, Preferred Alternatives, cost estimates and other information with the BOS along with DISUC findings and recommendations.	5/22
19	<i>Review of BOS Input</i>	<i>Town Staff &amp; DISUC</i>	<i>Review BOS input and discuss any modifications prior to preparation of Final Report</i>	<i>TBD</i>
20	<i>Final Report</i>	<i>Town Staff &amp; DISUC</i>	<i>Discuss Final Report and next steps.</i>	<i>TBD</i>

Additional meetings may be held as needed. Some topics may take multiple meetings.

*\*Dates and Meeting Topics in Italics are Tentative*

**\*\* All meetings are open to the Public**



# RIVERWALK PARK - DISUC PREFERRED CONCEPT PLAN

Riverwalk Park & Boardwalk Feasibility/Concept Plan  
Yarmouth, MA



**RIVERWALK PARK AND BOARDWALK  
MATERIALS LIST  
Updated September 20, 2017**

Element	Materials	Comments
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**RIVERWALK PARK:**

Entrance Roadway	<ul style="list-style-type: none"> <li>• Traditional bituminous pavement with drainage system to meet WPA for treatment, recharge, peak attenuation, etc.</li> </ul>	<ul style="list-style-type: none"> <li>• Traditional pavement chosen over impervious pavement due to potential for traffic from Lot 2 and durability for turning movements.</li> <li>• All new utilities to come through entrance road and be buried.</li> </ul>
Pedestrian Crossings	<ul style="list-style-type: none"> <li>• Push-button pedestrian flashing beacon and crosswalk at Route 28 for safety.</li> <li>• Elevated walkways periodically throughout the parking lot to access Lot 2 and slow traffic.</li> </ul>	
Parking Lot	<ul style="list-style-type: none"> <li>• Permeable Pavement.</li> </ul>	<ul style="list-style-type: none"> <li>• Permeable pavement chosen to meet environmental regulations and eliminate the need for constructed drainage systems.</li> </ul>
Pathways	<ul style="list-style-type: none"> <li>• Permeable Pavement.</li> </ul>	<ul style="list-style-type: none"> <li>• Permeable pavement chosen to meet environmental regulations, for durability, easy handicap accessibility and no drainage required.</li> <li>• Pathway widths should be minimum of 6' wide, with 8' preferable wherever permissible.</li> </ul>
Curbing/curb stops	<ul style="list-style-type: none"> <li>• Curb stops in parking areas next to pathways.</li> </ul>	<ul style="list-style-type: none"> <li>• Curb stops to protect pedestrian pathway next to the parking areas from vehicles and overhanging bumpers.</li> <li>• No proposed curbing, keep it more natural/less formal.</li> </ul>
Restrooms	<ul style="list-style-type: none"> <li>• Traditional Restroom/info center designed for floodplain near entrance.</li> <li>• Portable toilet enclosure with roof near Kayak launch.</li> <li>• Include automatic timed locks for restrooms to close from dusk to dawn.</li> </ul>	<ul style="list-style-type: none"> <li>• Restrooms to be locked at night using automatic system (similar to other public restrooms in Town).</li> </ul>

**RIVERWALK PARK AND BOARDWALK  
MATERIALS LIST  
Updated September 20, 2017**

Element	Materials	Comments
Trash Cans/Recycling	<ul style="list-style-type: none"> <li>• Bigbelly Solar Trash Compactor/Recycling Containers.</li> </ul>	<ul style="list-style-type: none"> <li>• Locate 3 trash/recycling containers throughout the park where accessible by the trash truck.</li> </ul>
Lighting 	<ul style="list-style-type: none"> <li>• Decorative Lighting – nautical theme, LED, max. 15’ high poles.</li> <li>• Lighting should be able to accommodate security cameras.</li> </ul>	<ul style="list-style-type: none"> <li>• Consider use of solar powered lighting if the design moves forward, but price buried electrical lines for cost estimate.</li> <li>• Include 3 security cameras in the parking area attached to light posts.</li> </ul>
Gate at Entrance to Park	<ul style="list-style-type: none"> <li>• Decorative style (not a utilitarian barrier gate, but not elaborate).</li> </ul>	<ul style="list-style-type: none"> <li>• May not be locked at all times.</li> </ul>
Landscaping	<ul style="list-style-type: none"> <li>• Include a variety of native species to reduce maintenance, to restore resource buffer areas, and foster butterfly and pollination areas. Consider edible gardens.</li> <li>• Retain one large grass area for events, but reduce other areas requiring mowing. Lawn event area to be irrigated.</li> <li>• Include water spigots around the park for watering and for drinking fountains.</li> <li>• Retain vistas from southern parking areas with low plantings.</li> <li>• Reduce number of trees that impact river views, increase visibility for security and reduce maintenance costs.</li> <li>• Use low lying shrubs to ensure lines of sight for security (&lt;3’).</li> <li>• Use shrub species to deter access to unwanted areas (thorny or thick shrubs).</li> </ul>	<ul style="list-style-type: none"> <li>• Low maintenance landscaping to meet the ecological restoration goals, maintain visibility of water views and for passive surveillance, include diverse plantings to foster butterfly/pollination areas and edible gardens.</li> </ul>
Pavilion at Lawn Area	<ul style="list-style-type: none"> <li>• Use fabric sails over permeable pavement pad (rather than structured pavilion).</li> <li>• Estimated area covered 20’x30’.</li> </ul>	

**RIVERWALK PARK AND BOARDWALK  
MATERIALS LIST  
Updated September 20, 2017**

Element	Materials	Comments
Seating Options	<ul style="list-style-type: none"> <li>• Benches (locate some trees for shade near benches).</li> <li>• Casual seating such as boulders.</li> <li>• A few picnic tables near the lawn area.</li> </ul>	<ul style="list-style-type: none"> <li>• Seating should be vandal-resistant and designed to prevent people from lying down (center handrail).</li> </ul>
Interactive/natural playscapes	<ul style="list-style-type: none"> <li>• Natural Materials for four (4) play-scape areas.</li> </ul>	<ul style="list-style-type: none"> <li>• Include handicap accessibility</li> </ul>
Kayaks Vendor Trailer Leased Storage Space	<ul style="list-style-type: none"> <li>• Pervious Pavement Pad Area for private vendor.</li> <li>• Corral Area and Low Racks for leasing.</li> </ul>	<ul style="list-style-type: none"> <li>• No rental locker proposed at this time.</li> </ul>
Interpretive Signage & Kiosks	<ul style="list-style-type: none"> <li>• Signage at the entrance to identify park rules/hours.</li> <li>• General tourist information board at restrooms.</li> <li>• Kayak safety education kiosk.</li> <li>• Interpretive signage at the Upweller, pollinating/butterfly areas, edible garden and along the river.</li> </ul>	<ul style="list-style-type: none"> <li>• Consultant to determine materials and sizes for estimating purposes (include 8-10).</li> </ul>
Educational Elements	<ul style="list-style-type: none"> <li>• Included in interpretive signage above.</li> </ul>	
Artist Shanties/Tents	<ul style="list-style-type: none"> <li>• None initially budgeted.</li> </ul>	<ul style="list-style-type: none"> <li>• Provide area for tents for now and future shanties at a later date.</li> </ul>
Public Art	<ul style="list-style-type: none"> <li>• None initially budgeted.</li> </ul>	<ul style="list-style-type: none"> <li>• Have separate source of funding for public art.</li> </ul>
Food Trucks	<ul style="list-style-type: none"> <li>• Utilize portion of parking lot – no special area.</li> </ul>	<ul style="list-style-type: none"> <li>• Food Trucks for special events only can use a closed off section of the parking lot.</li> </ul>

**RIVERWALK PARK AND BOARDWALK  
MATERIALS LIST  
Updated September 20, 2017**

Element	Materials	Comments
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**BOARDWALK AND WOOD TRAILS:**

Boardwalk Deck	<ul style="list-style-type: none"> <li>• IPE ( Brazilian Hardwood) – sustainably harvested.</li> <li>• Southern Yellow Pine as an alternate.</li> <li>• Aluminum Grating at bump outs.</li> </ul>	<ul style="list-style-type: none"> <li>• Cost estimate should include IPE, with an alternate for southern yellow pine.</li> <li>• IPE must be sustainably harvested.</li> </ul>
Railings	<ul style="list-style-type: none"> <li>• Wood posts and railings that flare out on the sides.</li> </ul>	<ul style="list-style-type: none"> <li>• No Chromated Copper Arsenate (CCA) pressure treated wood. Alkaline Copper Quaternary (ACQ) is a less damaging pressure treated wood.</li> <li>• SS cable not used due to comments from public on noise from the wind whistling through the cables.</li> </ul>
Pathways through Woods	<ul style="list-style-type: none"> <li>• Permeable pavement.</li> </ul>	<ul style="list-style-type: none"> <li>• Permeable pavement chosen to meet environmental regulations, for durability, easy handicap accessibility and no drainage required.</li> </ul>
Interpretive Signage	<ul style="list-style-type: none"> <li>• Signage at all entrances to boardwalk identifying use rules.</li> <li>• Signage along the boardwalk noting wildlife, osprey nests, plants, marsh ecosystem, etc.</li> </ul>	<ul style="list-style-type: none"> <li>• Assume 8-10 interpretive signs along the Boardwalk.</li> <li>• Consultant to determine materials and sizes for estimating purposes.</li> </ul>
Trash Cans	<ul style="list-style-type: none"> <li>• One (1) Bigbelly Solar Trash Compactor</li> </ul>	<ul style="list-style-type: none"> <li>• Locate a trash compactor at the entrance to the boardwalk at Seagull Beach</li> </ul>

**SUBDIVISION ENTRANCE DRIVE  
ORDER OF MAGNITUDE ESTIMATE  
Riverwalk Park and Boardwalk Project, Yarmouth, MA**

Quantity	Unit	Item Description	Unit Price	Amount	Amount
<b>SITE PREPARATION AND EXCAVATION</b>					<b>\$170,725</b>
1	LS	SITE PREPARATION	\$10,000	\$10,000	
500	LF	TEMP TREE PROTECTION FENCE	\$8	\$4,000	
500	CY	UNCLASSIFIED EXCAVATION	\$35	\$17,500	
935	CY	GRAVEL BORROW	\$35	\$32,725	
9650	SY	FINE GRADING AND COMPACTING	\$10	\$96,500	
1	LS	UNSUITABLE SOILS	\$10,000	\$10,000	
<b>DRAINAGE AND UTILITY</b>					<b>\$167,250</b>
6	EA	CATCH BASIN	\$3,000	\$18,000	
6	EA	LEACHING BASIN	\$4,000	\$24,000	
150	LF	12-INCH RCP	\$75	\$11,250	
700	LF	WATER MAIN 8 INCH	\$120	\$84,000	
3	EA	GATE VALVE	\$5,000	\$15,000	
2	EA	HYDRANT	\$7,500	\$15,000	
<b>PAVING AND SITE WORK</b>					<b>\$171,725</b>
610	TON	HOT MIX ASPHALT PAVEMENT - 4" DEPTH	\$110	\$67,100	
1500	FT	HMA BERM - TYPE 2	\$10	\$15,000	
120	TON	HMA SIDEWALK (800' x 8' WIDE)	\$200	\$24,000	
8	EA	GRANITE BOUND	\$500	\$4,000	
1	LS	MOBILIZATION	\$25,000	\$25,000	
405	CY	LOAM BORROW	\$50	\$20,250	
1625	SY	COMPOST TOP SOIL	\$7	\$11,375	
1	LS	NPDES STORMWATER POLLUTION PREVENTION PLAN	\$5,000	\$5,000	
<b>PLANTING</b>					<b>\$84,700</b>
40	CY	AMENDED SOIL MIX FOR TREE PLANTING	\$100	\$4,000	
1900	SY	SEEDING LAWNS - AREAS G1	\$3	\$5,700	
1625	SY	NATIVE SEEDING - AREAS G2	\$4	\$6,500	
700	LF	COMPOST FILTER TUBES	\$15	\$10,500	
25	EA	EVERGREEN TREES (8-10 FOOT)	\$800	\$20,000	
25	EA	DECIDUOUS TREES (3 INCH CALIPER)	\$1,200	\$30,000	
100	EA	SHRUBS (3 GAL)	\$65	\$6,500	
50	EA	PERENNIALS AND ORNAMENTAL GRASSES (1-2 GAL)	\$30	\$1,500	
<b>ELECTRICAL</b>					<b>\$213,750</b>
700	LF	3 INCH CONDUIT (COMMUNICATIONS)	\$55	\$38,500	
3	EA	COMMUNICATIONS HANDHOLE	\$1,750	\$5,250	
700	LF	4 INCH CONDUIT (ELECTRIC)	\$60	\$42,000	
2	EA	ELECTRIC MANHOLE	\$8,000	\$16,000	
5	EA	ELECTRIC HANDHOLE	\$1,750	\$8,750	
11	EA	PULL BOX	\$750	\$8,250	
1	LS	LIGHTING LOAD CENTER	\$15,000	\$15,000	
8	EA	ORNAMENTAL LIGHT	\$10,000	\$80,000	
<b>SIGNAGE AND TRAFFIC</b>					<b>\$69,000</b>
4	LS	SIGNS	\$500	\$2,000	
3000	LF	PAVEMENT MARKINGS	\$2	\$6,000	
10	CY	4,000 PSI 3/4 INCH CONCRETE	\$1,000	\$10,000	
2	EA	PUSH BUTTON PEDESTRIAN FLASHING BEACON	\$20,000	\$40,000	
1	LS	CROSSWALK AND HANDICAP RAMPS @Route 28	\$5,000	\$5,000	
1	EA	ENTRANCE GATE	\$6,000	\$6,000	
<b>SUBTOTAL PAY ITEMS</b>				<b>\$877,150</b>	<b>\$877,150</b>
<b>25% CONTINGENCY</b>					<b>\$219,288</b>
<b>5% ESCALATION CONTINGENCY</b>					<b>\$43,858</b>
<b>TOTAL</b>					<b>\$1,140,295</b>

**RIVERWALK PARK (PREFERRED CONCEPT)**  
**ORDER OF MAGNITUDE ESTIMATE**  
**Riverwalk Park and Boardwalk Project, Yarmouth MA**

Quantity	Unit	Park + Parking Lot Item Description	Amount	Unit Price	Amount
<b>SITE PREPARATION AND EXCAVATION</b>			<b>\$334,750</b>		
1	LS	SITE PREPARATION		\$10,000	\$10,000
500	LF	TEMP TREE PROTECTION FENCE		\$8	\$4,000
250	CY	UNCLASSIFIED EXCAVATION		\$35	\$8,750
100	CY	GRAVEL BORROW (Park misc. 100 CY)		\$35	\$3,500
17850	SY	FINE GRADING AND COMPACTING		\$10	\$178,500
1	LS	UNSUITABLE SOILS		\$10,000	\$10,000
1	LS	NPDES STORMWATER POLLUTION PREVENTION PLAN		\$5,000	\$5,000
35	CY	4,000 PSI 3/4" - 610 CONCRETE		\$1,000	\$35,000
1	LS	MOBILIZATION		\$80,000	\$80,000
<b>DRAINAGE AND UTILITY</b>			<b>\$291,000</b>		
1	LS	SEPTIC SYSTEM		\$125,000	\$125,000
800	LF	WATER MAIN - 8 INCH		\$120	\$96,000
2	EA	GATE VALVE		\$5,000	\$10,000
2	EA	HYDRANT		\$7,500	\$15,000
2	EA	DRINKING FOUNTAINS		\$7,500	\$15,000
1	LS	IRRIGATION SYSTEM (LAWN AREAS ONLY)		\$30,000	\$30,000
<b>PAVING AND SITE WORK</b>			<b>\$890,125</b>		
2700	CY	EXCAVATION (PARKING LOT)		\$30	\$81,000
2700	CY	GRADED STONE - 24" DEPTH FOR PERVIOUS ASPHALT(PARKING LOT)		\$75	\$202,500
925	TON	HOT MIX ASPHALT PAVEMENT - PERVIOUS - 4" (PARKING LOT)		\$175	\$161,875
1600	CY	EXCAVATION (WALKWAYS)		\$30	\$48,000
1600	CY	GRADED STONE - 24" DEPTH FOR PERVIOUS ASPHALT (WALKWAYS)		\$75	\$120,000
340	TON	HOT MIX ASPHALT PAVEMENT - PERVIOUS - 2.5" (WALKWAYS)		\$175	\$59,500
900	CY	EXCAVATION (WOODLAND PATH)		\$30	\$27,000
900	CY	GRADED STONE - 24" DEPTH FOR PERVIOUS ASPHALT (WOODLAND PATH)		\$75	\$67,500
190	TON	HOT MIX ASPHALT PAVEMENT - PERVIOUS - 2.5" (WOODLAND PATH)		\$175	\$33,250
1600	LF	HMA BERM - TYPE 2		\$10	\$16,000
110	EA	WHEELSTOPS		\$300	\$33,000
3	EA	RAISED CROSSWALKS		\$10,000	\$30,000
6	LS	SIGNS		\$500	\$3,000
7500	LF	PAVEMENT MARKINGS		\$1	\$7,500
<b>SITE AMENITIES</b>			<b>\$162,500</b>		
5	EA	PICNIC TABLE		\$3,000	\$15,000
10	EA	BENCH		\$2,500	\$25,000
3	EA	SOLAR TRASH & RECYCLING		\$2,000	\$6,000
10	EA	BIKE RACK		\$1,250	\$12,500
1	EA	PLAYSCAPE		\$20,000	\$20,000
20	EA	GRANITE BLOCK SEAT (USE FROM SITE)		\$450	\$9,000
3	EA	INTERPRETIVE PANELS		\$4,000	\$12,000
1	EA	SAFETY KIOSK		\$8,000	\$8,000
1	LS	KAYAK LAUNCH		\$45,000	\$45,000
1	LS	KAYAK STORAGE RACKS AND FENCING (24 KAYAKS, 6/RACK)		\$10,000	\$10,000
<b>STRUCTURES</b>			<b>\$206,000</b>		
1	LS	WELCOME CENTER & RESTROOMS		\$100,000	\$100,000
1	LS	PORTABLE TOILET ENCLOSURE (INCLUDES PAD & FENCE))		\$40,000	\$40,000
1	LS	SHADE SAILS		\$25,000	\$25,000
1	EA	KAYAK VENDOR SHED		\$6,000	\$6,000
1	EA	MARINE INTERPRETIVE STRUCTURE WITH DISPLAY KIOSKS AT UPWELLER		\$35,000	\$35,000

**RIVERWALK PARK (PREFERRED CONCEPT)**  
**ORDER OF MAGNITUDE ESTIMATE**  
**Riverwalk Park and Boardwalk Project, Yarmouth MA**

<b>PLANTING</b>			<b>\$385,130</b>	
2205	CY	LOAM BORROW	\$50	\$110,250
4140	SY	COMPOST TOP SOIL	\$7	\$28,980
1	LS	NPDES STORMWATER POLLUTION PREVENTION PLAN	\$5,000	\$5,000
60	CY	AMENDED SOIL MIX FOR TREE PLANTING	\$100	\$6,000
1400	SY	SEEDING LAWNS - AREAS G1	\$3	\$4,200
7475	SY	NATIVE SEEDING - AREAS G2	\$4	\$29,900
6700	SY	NATIVE SEEDING - AREAS G3	\$4	\$26,800
800	LF	COMPOST FILTER TUBES	\$15	\$12,000
20	EA	EVERGREEN TREE (8-10 FOOT)	\$1,500	\$30,000
30	EA	DECIDUOUS TREE (3 INCH CALIPER)	\$2,000	\$60,000
900	EA	SHRUBS (3 GAL)	\$65	\$58,500
450	EA	PERENNIALS AND ORNAMENTAL GRASSES (1-2 GAL)	\$30	\$13,500
<b>ELECTRICAL</b>			<b>\$238,750</b>	
800	LF	3 INCH CONDUIT (Communications)	\$55	\$44,000
3	EA	COMMUNICATIONS HANDHOLE (Communications)	\$1,750	\$5,250
800	LF	3 INCH CONDUIT (electric)	\$55	\$44,000
1	EA	ELECTRIC MANHOLE (electric)	\$8,000	\$8,000
10	EA	ELECTRIC HANDHOLE (electric)	\$1,750	\$17,500
10	EA	PULL BOX	\$500	\$5,000
1	LS	LIGHTING LOAD CENTER	\$15,000	\$15,000
10	EA	ORNAMENTAL LIGHT	\$10,000	\$100,000
SUBTOTAL PAY ITEMS			<b>\$2,508,255</b>	\$2,508,255
25% CONTINGENCY			<b>\$627,064</b>	\$627,064
5% ESCALATION CONTINGENCY			<b>\$125,413</b>	\$125,413
TOTAL CONSTRUCTION			<b>\$3,260,732</b>	\$3,260,732

RIVERWALK PARK (Preferred Concept)  
SOFT COSTS ESTIMATE  
Riverwalk Park and Boardwalk Project, Yarmouth, MA

**SOFT COSTS PARK**

PRELIMINARY DESIGN	\$62,000.00
FINAL DESIGN	\$125,000.00
ADVERTISE AND BID	\$15,000.00
PERMITTING	\$38,000.00
CONSTRUCTION SUPPORT	<u>\$30,000.00</u>
	\$270,000.00

Cost does not include the cost for the Definitive Subdivision

**SOFT COSTS SUBDIVISION ENTRANCE DRIVE**

PRELIMINARY DESIGN	\$12,000.00
FINAL DESIGN	\$25,000.00
ADVERTISE AND BID	\$3,000.00
PERMITTING	
CONSTRUCTION SUPPORT	<u>\$15,000.00</u>
	\$55,000.00

**RIVERWALK PARK**  
**ESTIMATED AVERAGE ANNUAL MAINTENANCE COSTS**  
**January 16, 2018**

<b>Description</b>	<b>Average Annual Maintenance Costs</b>	<b>Remarks</b>
Bathroom Cleaning	\$ 5,250	1.5 hrs/day, 7 days per week, for 20 weeks @ \$25/hr (3 stalls each side)
Porta-john Cleaning	\$ 3,960	\$165/month for 6 months for 4 Porta-Johns
Porta-john Rentals	\$ 2,800	\$700 per season per Porta-John for 4 Porta-Johns (2 handicapped)
Bathroom Supplies - weekly	\$ 2,400	\$120 per week for 20 week season
Stock & Repair Materials	\$ 1,000	General stock and repair parts per season
Mowing and trimming	\$ 2,600	3 hours per week for 26 weeks @ \$25/hr plus 26 hours/season for irrigation
Fertilizing	\$ 500	Lump sum per season for law areas only
Watering as needed (spigots)	\$ 1,000	2 hours/week for 20 weeks @\$25/hr
Trash Removal	\$ 1,500	3 hours/week for 20 weeks @\$25/hr
Lighting & Electrical Maintenance	\$ 2,400	Estimated costs - LED lights
Line Striping	\$ 500	line striping once every 3 years
Stormwater - Basin Cleaning	\$ 1,000	Cleaning of Subdivision drainage structures and infiltration structures
Stormwater - Pervious Pavement	\$ 1,200	Sweeping of Parking twice per year
Pathway Maintenance	\$ 800	Periodic sweeping/sweeping
Septic Pumping	\$ 600	Pumping every other year
Structure Maintenance	\$ 2,000	Painting and repairs of park structures
Plowing & Salting	\$ 1,500.00	\$150 per event, estimated at 10 events per season
<b>TOTAL:</b>	<b>\$ 31,010</b>	<b>Estimated <i>average</i> annual Riverwalk Park Maintenance Costs</b>

**RIVERWALK PARK AND BOARDWALK  
NOTED CONCERNS  
September 19, 2017 – Updated April 6, 2018**

NOTED CONCERNS	MITIGATION MEASURES/RESPONSES
<p><b><u>Impacts to Quality of Life for Abutters to the Marsh:</u></b></p> <ul style="list-style-type: none"> <li>• Impacts to Privacy and views.</li> <li>• Location in close proximity to neighborhoods.</li> <li>• Possible Reduction in Property Values.</li> <li>• Noise from use of the Boardwalk.</li> </ul>	<ul style="list-style-type: none"> <li>• Boardwalk across the marsh has been moved to 700 feet away from abutters along the Parkers River to minimize impacts.</li> <li>• <a href="#">Consultant prepared a photo-visualization of the three Boardwalk options from the end of Cape Isle Drive in the Gateway Isles community to get a better understanding of visual impacts.</a></li> <li>• Boardwalk would be closed from dusk to dawn with no lighting.</li> <li>• Property Value impacts are unknown, current Town Assessed Values based on water access and water views, which would remain.</li> </ul>
<p><b><u>Impacts to Marsh and Wildlife:</u></b></p> <ul style="list-style-type: none"> <li>• Impacts to the salt marsh and the environment.</li> <li>• Impacts to wildlife.</li> <li>• Trash in Marsh.</li> <li>• Environmental Concerns outlined in C. Erickson Memo.</li> </ul>	<ul style="list-style-type: none"> <li>• Outreach to DNR and Conservation.</li> <li>• Environmental Regulations allow for construction of Boardwalks through resource areas subject to appropriate design measures (i.e. height, decking materials, foundation, etc).</li> <li>• Boardwalk located to minimize disturbance of osprey poles/nests.</li> <li>• Nitrogen from septic systems greatest threat to the health of the marsh.</li> <li>• Trash receptacles to be located at both ends of Boardwalk (solar powered trash compactors).</li> </ul>
<p><b><u>Boardwalk Bridge over Channel to Lewis Pond:</u></b></p> <ul style="list-style-type: none"> <li>• Abutters note that sailboats have been known to use the channel to access Lewis Pond, which would be impacted by the Boardwalk Bridge.</li> </ul>	<ul style="list-style-type: none"> <li>• Sailboat usage is limited along this channel due to shallow depths and narrowness.</li> <li>• Only one dock on Lewis Pond for which sailboats are prohibited.</li> <li>• Bridge height determined during the environmental permitting process and will be a function of frequency of sailboat usage, shallow depth of the pond and channel, the close proximity of Nantucket Sound for sailing, input from the Harbor Master, and whether the boardwalk provides a greater public benefit. Public comment will be considered by the various permitting agencies.</li> <li>• Bridge height will need to accommodate DNR skiff for shellfish propagation within Lewis Pond. Located to minimize crossing. <a href="#">Bridge design required to meet handicapped accessibility regulations.</a></li> </ul>

**RIVERWALK PARK AND BOARDWALK  
NOTED CONCERNS  
September 19, 2017 – Updated April 6, 2018**

NOTED CONCERNS	MITIGATION MEASURES/RESPONSES
<p><b><u>Bicycle Traffic:</u></b></p> <ul style="list-style-type: none"> <li>• Bicycle use on the Boardwalk may be dangerous.</li> </ul>	<ul style="list-style-type: none"> <li>• Bicycle usage on the Boardwalk should be prohibited due to the proposed 6’ width. Provide bike racks at either end of Boardwalk.</li> </ul>
<p><b><u>Vehicular Traffic:</u></b></p> <ul style="list-style-type: none"> <li>• Negative traffic impacts from the project to an already congested Route 28.</li> <li>• Access in/out of the Riverwalk Park would be difficult, consider right turn only exiting the Park.</li> </ul>	<ul style="list-style-type: none"> <li>• Entrance is lined up with parking entrance across Route 28.</li> <li>• Right &amp; Left turning lanes exiting the Park are proposed.</li> <li>• Traffic study to evaluate volume and potential improvements to Route 28 in this area will be required if the project moves forward.</li> </ul>
<p><b><u>Pedestrian Safety:</u></b></p> <ul style="list-style-type: none"> <li>• Unsafe for pedestrians to cross Route 28.</li> <li>• Speeding within the parking lot.</li> </ul>	<ul style="list-style-type: none"> <li>• Include Flashing Beacon pedestrian crosswalk across Route 28.</li> <li>• Include elevated walkways throughout the Riverwalk parking lot to slow traffic and provide safe access to Lot 2.</li> </ul>
<p><b><u>Security and Crime and Emergency Access:</u></b></p> <ul style="list-style-type: none"> <li>• Riverwalk Park and Boardwalk may be a location where people congregate at night for parties, drug abuse, underage drinking or criminal activity.</li> <li>• <a href="#">Provisions for Emergency Access.</a></li> </ul>	<ul style="list-style-type: none"> <li>• Riverwalk Park has been designed to allow for police to patrol the area from their vehicles.</li> <li>• Riverwalk parking area will have security lighting.</li> <li>• Landscaping to be designed to promote visibility.</li> <li>• Signage for Park Rules and limit hours of operation from dawn to dusk (similar to beaches).</li> <li>• Consider using security cameras.</li> <li>• <a href="#">Police Chief met with Mr. Larry Fennelly to discuss security issues.</a></li> <li>• <a href="#">Boardwalk accessible from Seagull Beach and Riverwalk Park. Width and alignment across marsh to be designed for stretcher access.</a></li> </ul>
<p><b><u>Kayak Usage:</u></b></p> <ul style="list-style-type: none"> <li>• Boat traffic on Parkers River is busy now and may have safety concerns for added Kayak traffic due to the narrowness and shallow depth of the River.</li> <li>• Already a private kayak rental firm operating out of Skippy’s Marina.</li> </ul>	<ul style="list-style-type: none"> <li>• Promote Kayak safety on River through an educational kiosk on paddle safety. Possible further education through on-site kayak rentals. Provide guidelines and rules of the river for those rental on-site kayak storage.</li> <li>• Provide landscaping to prevent access to the River through the saltmarsh.</li> <li>• Skippy’s is a private marina and there is no public access for kayak launching.</li> </ul>

**RIVERWALK PARK AND BOARDWALK  
NOTED CONCERNS  
September 19, 2017 – Updated April 6, 2018**

NOTED CONCERNS	MITIGATION MEASURES/RESPONSES
<p><b><u>Purpose of the Project and Benefits:</u></b></p> <ul style="list-style-type: none"> <li>• Project would cost the Town money to construct and maintain and would not be self-sustaining, burdening taxpayers.</li> <li>• Drive-In site would be better used as a revenue generator for the Town.</li> <li>• <a href="#">Already have multiple boardwalks in Town.</a></li> <li>• <a href="#">Project needs to be part of a larger plan for Route 28.</a></li> </ul>	<ul style="list-style-type: none"> <li>• The concept is to create a destination location to energize Route 28 and use public investment to promote private investment in the area.</li> <li>• More visitors means more people using local businesses.</li> <li>• Article 97 issues may come into play for non-recreational use of the Drive-In property requiring legislative relief. <a href="#">Further investigations are needed into the applicability of Article 97 to the Drive-In property which may impact the option for other non-recreational uses on the property.</a></li> <li>• <a href="#">Riverwalk Park/Boardwalk in conjunction with Special Events would be a draw for this area (as shown by recent success of the Irish Festival).</a></li> <li>• <a href="#">Project would bolster economic development in the Village Center Overlay District (VCOD) passed in 2012 as a vision for what the Town wanted along this section of Route 28. Project would serve as a focal point and boost for an area already seeing improvements with the Parkers River Bridge and the Whydah Pirate Museum. Could also be the impetus for future improvements such as connection with the rail trail and improvements to the Great Island Block by private developers.</a></li> <li>• <a href="#">Popularity of Bass Hole Boardwalk shows that boardwalks can be a draw to residents and tourists. Drawing people to our commercial corridor along Route 28 is important to the economic health of our tourism driven economy.</a></li> <li>• <a href="#">Create community pride.</a></li> </ul>

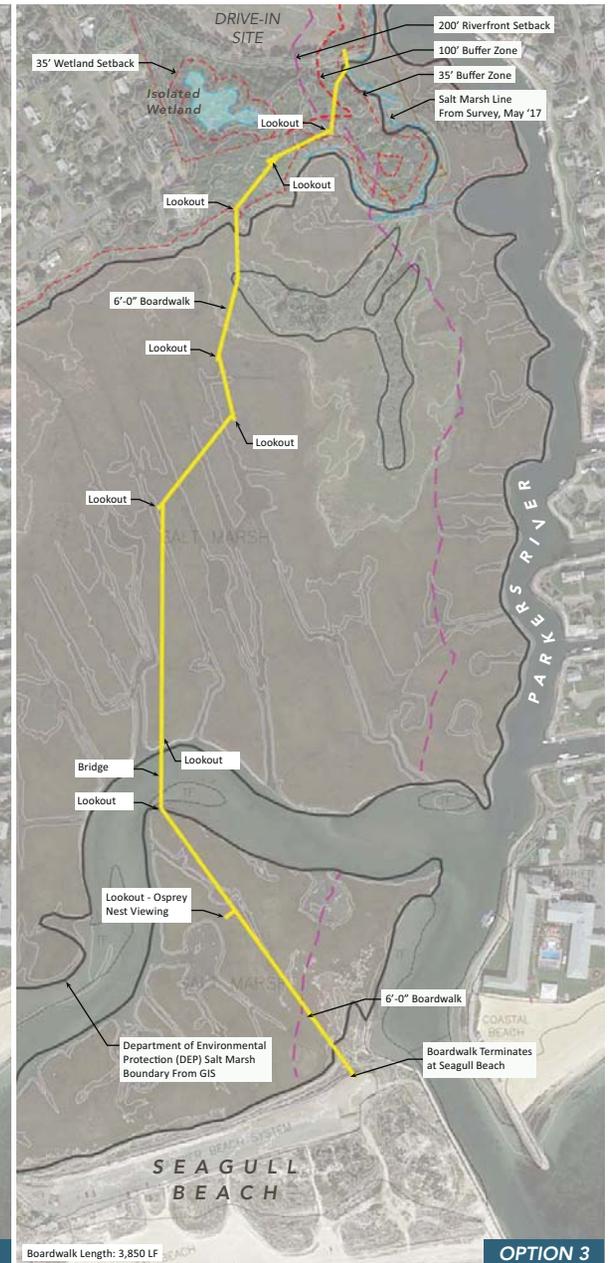
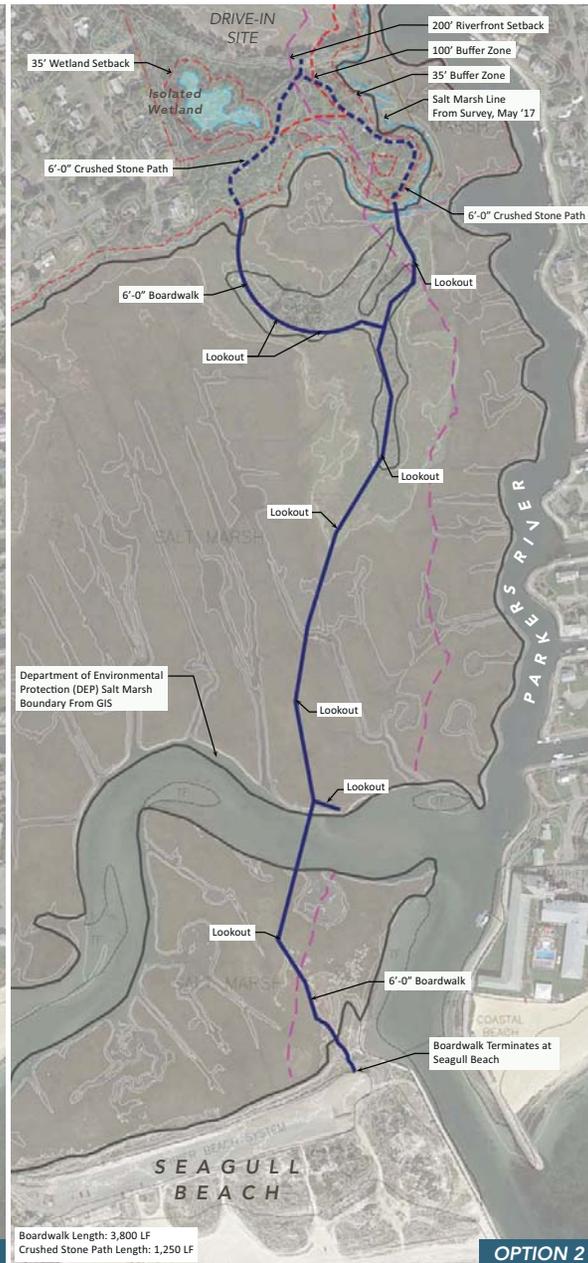
**RIVERWALK PARK AND BOARDWALK  
NOTED CONCERNS  
September 19, 2017 – Updated April 6, 2018**

NOTED CONCERNS	MITIGATION MEASURES/RESPONSES
<p><b><u>Cost of the Project to Build &amp; Maintain:</u></b></p> <ul style="list-style-type: none"> <li>• Increases to Property Taxes.</li> <li>• Potential high costs to construct, maintain and repairs from storm damage to Boardwalk.</li> <li>• Town has other larger projects that need be funded (school buildings/wastewater/DPW Building/etc).</li> <li>• Cost Estimates are low.</li> </ul>	<ul style="list-style-type: none"> <li>• Feasibility Study includes cost estimating for development costs, construction and maintenance.</li> <li>• CPA funding could be used as matching funds for other grants. CPA can only be used for Recreation, Affordable Housing, Open Space and Historic Preservation. CPA Funds cannot be used for other Town projects outside these four categories (such as wastewater, schools, DPW Building or general budget). CPA Funds are a good source of matching funds for other grant opportunities and shows the Town is invested in the project.</li> <li>• Potential for grants for construction (PARC, Seaport Grant).</li> <li>• Opportunities for revenue generation (plank sales, kayak rentals, events), will help to offset maintenance costs.</li> <li>• Lot 2 also provides opportunities for revenue generation through interim uses or long-term uses for the site.</li> <li>• If Lot 2 is disposed of for commercial/residential purposes, maintenance of the Park could be included as part of the transaction.</li> <li>• Materials and landscaping chosen to be low maintenance.</li> <li>• Cost estimates are conservative with a 20% contingency on soft costs and a 25% contingency on construction costs, along with a 5% escalation. Excessive delays in decision making will negatively impact the costs associated with this project.</li> </ul>

Notes:

1. These are concerns expressed at DISUC meetings as well as the two public input meetings and written comments received through April 6, 2018. Please note that this table does not contain all comments/input from stakeholders. Many comments were readily incorporated into the design and not documented here, although they are noted in the meeting minutes.

# Concept Sketches Presented at the 5/30 & 6/7/17 Public Meetings

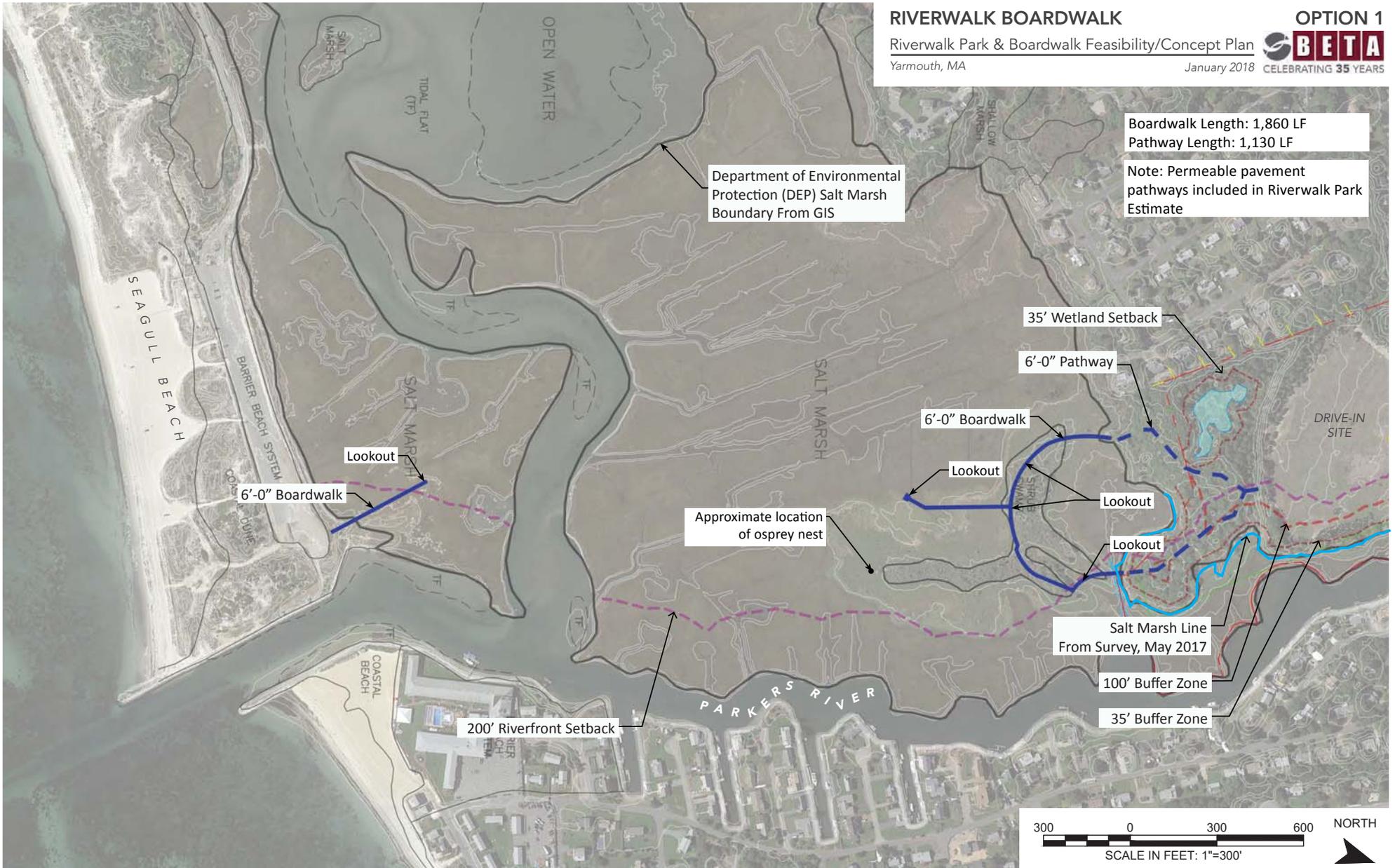


# RIVERWALK BOARDWALK

Riverwalk Park & Boardwalk Feasibility/Concept Plan  
Yarmouth, MA



Boardwalk Length: 1,860 LF  
Pathway Length: 1,130 LF  
Note: Permeable pavement pathways included in Riverwalk Park Estimate



Department of Environmental Protection (DEP) Salt Marsh Boundary From GIS

35' Wetland Setback

6'-0" Pathway

6'-0" Boardwalk

Lookout

6'-0" Boardwalk

Approximate location of osprey nest

Lookout

Lookout

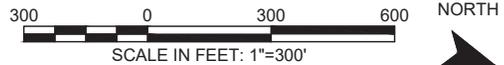
Lookout

Salt Marsh Line From Survey, May 2017

100' Buffer Zone

35' Buffer Zone

200' Riverfront Setback

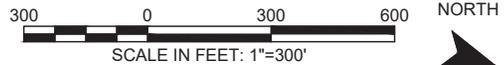
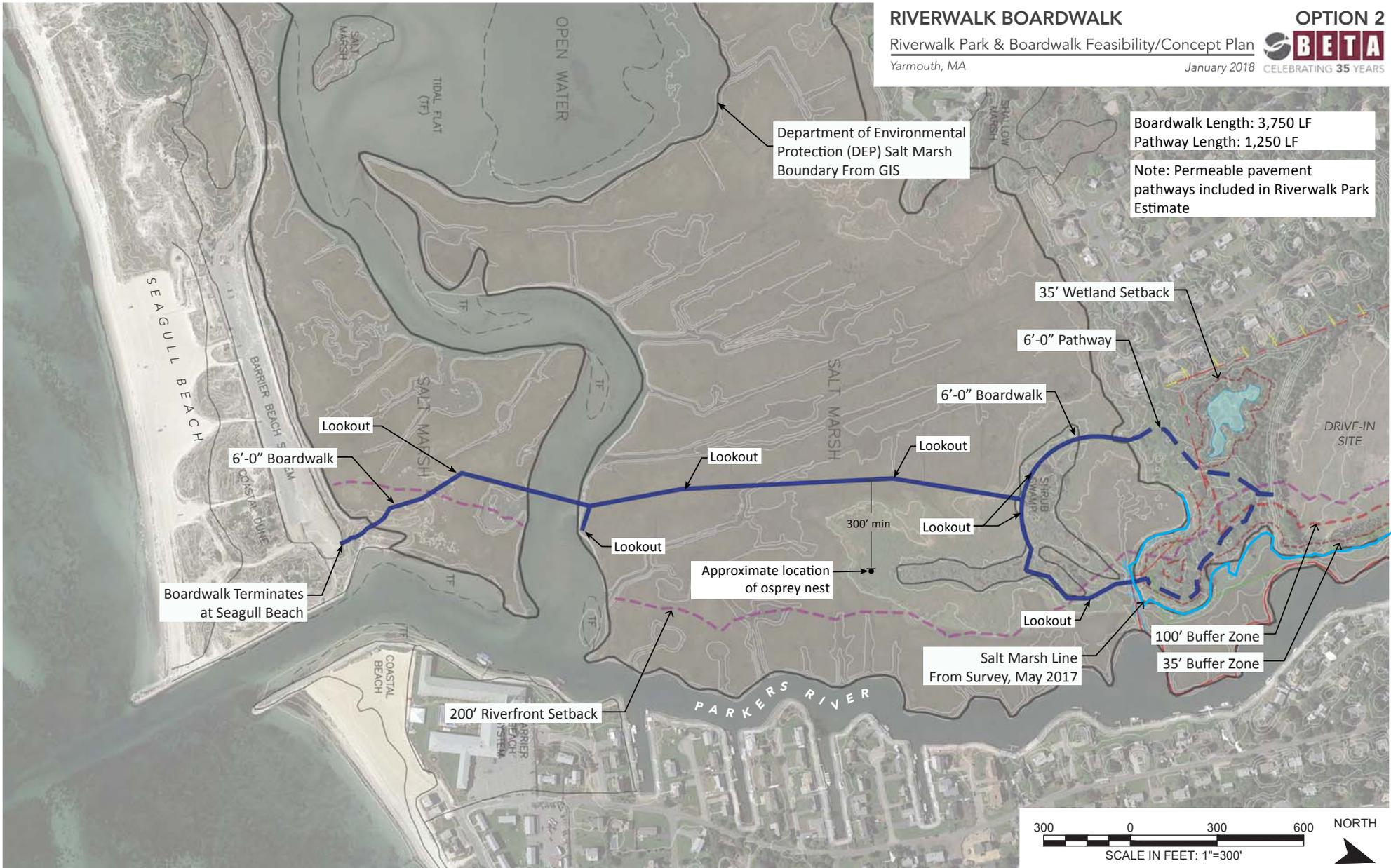


# RIVERWALK BOARDWALK

Riverwalk Park & Boardwalk Feasibility/Concept Plan  
Yarmouth, MA



Boardwalk Length: 3,750 LF  
Pathway Length: 1,250 LF  
Note: Permeable pavement pathways included in Riverwalk Park Estimate

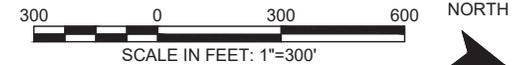
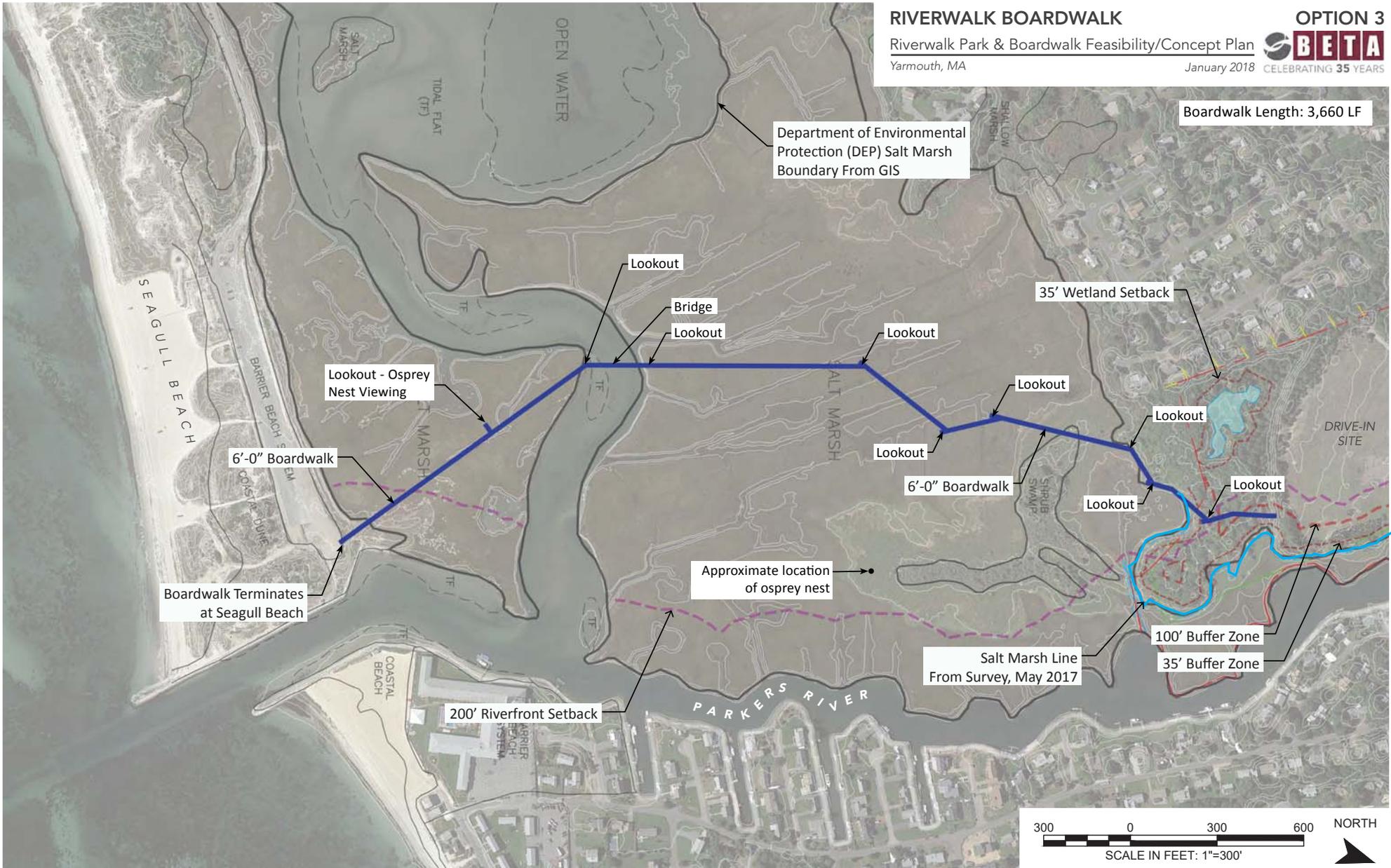


# RIVERWALK BOARDWALK

Riverwalk Park & Boardwalk Feasibility/Concept Plan  
Yarmouth, MA

OPTION 3  
**BETA**  
CELEBRATING 35 YEARS

Boardwalk Length: 3,660 LF



Option 3



Option 2



Option 1



Option 3



Option 2



Option 1



Option 3



Option 2



Option 1

