TECHNICAL MEMORANDUM

PRE-FEASIBILITY STUDY OF THE EXTENSION OF THE MARTHA’S VINEYARD NETWORK OF SHARED-USE PATHS (SUP)

MARTHA’S VINEYARD COMMISSION

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1.0 INTRODUCTION

Greenman-Pedersen, Inc. (GPI) was retained by the Martha’s Vineyard Commission (MVC) to develop the *Pre-Feasibility Study of the Extension of Martha’s Vineyard’s existing Shared Used Path (SUP)* networks. The overall goal of the project is to evaluate the feasibility of various alternatives to provide a continuous network of SUPs throughout the island. While there are many dedicated SUPs on the island, there are critical gaps in the networks that would be desirable to eliminate. This study takes a preliminary look at potential alternatives to eliminate the gaps in the network and provide continuous SUPs connecting the three Down-Island Towns; Tisbury, Oak Bluffs and Edgartown, with each other and with the State Forest. Most of this off-road SUP network exists, however the presence of several missing links creates safety hazards for users and acts as a deterrent to the use of bicycles by less experienced riders who prefer to travel only on off-road paths. Figure 1 illustrates the overall existing network of off-road SUPs as well as the missing links.

**FIGURE 1**
**EXISTING SUP NETWORK**
The study examines the following segments:

Segment 1 – Beach Road SUP to Edgartown-Vineyard Haven Road SUP
Segment 2 – Drawbridge SUP to County Road SUP
Segment 3 – County Road SUP to Sunset Lake
Segment 4 – Perimeter SUP around Oak Bluffs Town Center
Segment 5 – Perimeter SUP around Edgartown Center
Segment 6 – Meshacket Road
Segment 7 – West Tisbury Road SUP to Edgartown-Vineyard Haven Road SUP
Segment 8 – Access to the State Forest

Each segment will be evaluated in terms of available right-of-way, construction impacts (wetlands, resource areas, etc.) and estimated construction costs. In order to complete the evaluation, GPI researched available data from the MVC’s GIS database, as well as any available roadway plans. The right of way information is approximate only and more detailed field survey information is required to accurately determine the true impacts of the proposed alternatives on ROW, utilities and resource areas.

Construction costs are preliminary in nature and are based on current MassHighway materials costs. In most instances, because accurate ROW and roadway plans were not available the worst case scenario of needing to rebuild both the roadway surface as well as a new SUP was considered. More detailed ground survey to determine whether reconstruction of the roadway is needed and/or construction of SUP improvements by Town forces could significantly reduce the construction costs.

1.1 Project Goals & Objectives

The goal of this study is to evaluate the extension of the Martha’s Vineyard network of Shared Use Paths (SUPs) to link the three largest and most active towns – Vineyard Haven, Oak Bluffs and Edgartown – and also provide links into the extensive network of SUPs in the State Forest at the center of the Island. The aim is to provide continuous SUPs close to the water, largely running along Beach Road, and to link to the existing SUP running along Edgartown-Vineyard Haven Road. The aim is to eliminate the gaps in the network that now exist in critical areas which can make travel by bicycles or pedestrians uncomfortable or even dangerous, especially for inexperienced bicyclists.

Because of the narrow streets and limited rights-of-way in the hearts of each of the towns, it is presumed to be highly improbable to bring SUPs right to or through the center of any of the towns. The proposed strategies for providing access to and through the town centers include:
• Bring the SUP as close as possible to the centers of town – within easy walking distance- to locations where it is feasible to create a bicycle rest area with bike parking and other amenities;

• Create a continuous SUP around each town linking the other SUPs near the Town.

• Explore the potential for providing bicycle access to and through the towns via bike lanes on existing roadways or designate low volume roadways as “bike routes” with “Share the Road” sign designations.

1.2 Design Criteria

Technically called Shared Use Paths (SUPs), the terms bike paths and SUPs will be used interchangeably to refer to off-road paths accommodating bicycles as well as other non-motorized transportation including pedestrians, rollerbladers, wheelchair users and pedestrians with baby carriages. SUPs provide a valuable asset, particularly in environments like Martha’s Vineyard where tourists utilize the paths both for recreation and as a route to travel between points on the Island. Because these paths are designed to provide two-way travel of bikes and to accommodate pedestrians the width of the paths must be sufficient to safely and comfortably accommodate all users. The 1999 American Association of State Highway and Transportation Officials (AASHTO) Guide for the Development of Bicycle Facilities has established that such paths should have a minimum desirable width of 10 feet with 2 foot clear zones adjacent to the path. A minimum path width of 8 feet may be considered where the following conditions prevail: (1) bicycle traffic is expected to be low, even on peak days or during peak hours, (2) pedestrian use of the facility is not expected to be more than occasional, (3) there will be good horizontal and vertical alignment providing safe and frequent passing opportunities, and (4) during normal maintenance vehicle loading conditions that would not cause pavement edge damage. MassHighway’s 2006 Project Development & Design Guide further states that an 8 foot path may be considered where severe environmental, historical and/or structural constraints exist.
Where the path is adjacent to roadways, AASHTO and MassHighway both recommend a minimum separation of 5 feet between the path and the roadway surface. When a 5 foot separation can not be provided, suitable physical barriers such as fences, walls, cushioning vegetation or concrete/guardrail barriers are recommended. These barriers should be a minimum height of 3.5 feet to prevent bicyclists from toppling over it and should be designed to not be a hazard to motorists or bicyclists. These design criteria require that it is desirable to have at least 17 feet available for establishing an SUP adjacent to the roadway. However, it should be noted that these are guidelines and the cross section for each proposed segment should be carefully reviewed and designed to maximize the width of the path and separation from the roadway.

In most areas of the island, right of way (ROW) is limited to 40 feet or less, leaving approximately 23 feet or less available for the roadway surface. In most locations, the construction of a new SUP would likely require reconstruction of the adjacent roadway to maintain both the SUP and roadway in the existing ROW. Alternatively, ROW would be required to establish an SUP adjacent to the existing roadway surface without reconstructing the existing roadway surface. On Martha’s Vineyard, this could be problematic in many locations due to the presence of mature trees, grading or features such as walls, fences, or landscaping that have scenic and/or historic value. In some instances, variances or design waivers (if State or Federal Funds are used for construction) may be required, given the physical constraints of the area.
2.0 INDIVIDUAL SUP SEGMENTS

The following section will focus on the eight (8) individual segments evaluated in the study. Various conceptual level alternatives will be discussed and evaluated to assess the feasibility and impacts of construction and how they will help achieve the goals of the study.

2.1 Segment 1-Beach Road SUP to Edgartown-Vineyard Haven SUP

The existing SUPs in this area currently terminate well before the downtown area of Vineyard Haven. With the presence of the ferry terminal, as well as the downtown retail areas, the desire is to extend the SUPs as close to downtown Vineyard Haven as possible. However, the main goal is to provide a connection from the current terminus of the Edgartown Road-Vineyard Haven Road SUP (adjacent to Sanborn Way) to the terminus on Beach Road in the vicinity of Wind’s Up on Beach Road.

This segment has been divided into six (6) sub-sections as follows; Section 1.1 will discuss the alignment along Beach Road between Wind’s Up Watersports and the Sweetwater Restaurant while Section 1.2 will discuss alternatives to extend the bike facilities along Beach Road to the Five Corners intersection. Section 1.3 will provide a connection between Beach Road and Lagoon Pond Road and Section 1.4 will provide a connection from Lagoon Pond Road, through the Veterans Memorial Field, to Causeway Road. Section 1.5 will explore alternatives to connect from the recreation fields on Causeway Road to Edgartown-Vineyard Haven Road and Section 1.6 will extend the current SUP along Edgartown-Vineyard Haven Road.

2.1.1 Section 1.1 – Beach Road – Winds Up Watersports to Sweetwater Restaurant

Along this portion of Beach Road, the adjacent land uses are primarily industrial including warehouses and oil storage tanks. Pedestrian activity is limited and there is currently no sidewalk along the northerly side of Beach Road. The current SUP terminates abruptly in the vicinity of Wind’s Up Watersports. Based on a review of the existing GIS mapping provided by the MVC, it appears that the ROW along Beach Road in this area is between 33 and 40 feet. A conceptual plan illustrating the proposed alignment of the SUP through this section is provided in Figure 2.

As illustrated in Figure 2, the desirable cross section for Alternative 1A (solid red) would be 40 feet, providing a 10 foot SUP along the southerly side of Beach Road with 5 foot separation from the roadway. The roadway would consist of 22 feet of pavement providing 10½ foot travel lanes with 1 foot shoulders. The critical cross section along this segment appears to be adjacent to the cement wall abutting the oil tanks on the north and the warehouse structures on the south. These physical obstructions may require reduction of the desirable SUP width and/or offset from the
edge of road. It may be feasible in these areas of limited ROW where significant impacts to adjacent properties would occur to consider a reduction of the SUP to as little as 34 feet, by reducing the width of the path to 8 feet and the offset from the roadway to 2 feet. However, reduction in the path width or offset distances would likely require Design Waivers if the project were to utilize State or Federal funds for construction.

Continuing the SUP along Beach Road to the Sweetwater Restaurant would achieve the goal of extending the SUP network as close as possible to the town center, however provisions must be considered to provide some form of bicycle access to the heart of Vineyard Haven as well as to connect the SUP to the existing SUP on Edgartown-Vineyard Haven Road. The following sections explore alternatives to achieve these goals.

### 2.1.2 Section 1.2 – Beach Road –Sweetwater Restaurant to Five Corners Intersection

While it is desirable to provide an off-road SUP as close as possible to the downtown area and the Steamship Terminal via Beach Road, the character of Beach Road changes in the vicinity of the Sweetwater Restaurant. From this point west to the Five Corners intersection, there are retail and commercial uses and sidewalks provided on both sides of the road. Pedestrian activity in this area is more prominent, particularly on the southerly side of Beach Road. As illustrated in Figure 3, one alternative through this section is to continue the configuration of Alternative 1A (solid red) along the southerly side of Beach Road to the Five Corners intersection. This configuration will provide an SUP only along the south side of the road, with no sidewalk or pedestrian amenities provided along the northerly side of the road. The elimination of sidewalks along the northerly side of Beach Road could increase mid-block pedestrian crossings along the corridor at unmarked crossing locations and would make access to businesses along the northerly side of Beach Road difficult for disabled pedestrians. In addition, this would create increased conflicts between bikes and pedestrians on a shared path where pedestrians would be entering and exiting from businesses along the southerly side of Beach Road.

Because pedestrian access along both sides of Beach Road in this area is currently provided, an alternative to providing a dedicated SUP is to maintain the sidewalks along both sides of the street and restripe the pavement to provide 10-10.5 foot travel lanes and dedicate the remaining shoulders to bike lanes. This cross section is displayed in Figure 3 as Alternative 1B (dashed red) and may require minor construction to utilize all of the available right of way. This will eliminate potential conflicts between slow moving pedestrians and faster moving bicycles while achieving the goal of the study to bring bike access into the downtown area. Providing the on-street bike lanes to the Five Corners intersection could also provide a valuable connection to the ferry terminal, while maintaining safe pedestrian accommodations.

Alternatives 1A and 1B are consistent with the goals of the study. Alternative 1A would provide an off-road SUP to the Town Center, while a combination of Alternative 1A and Alternative 1B
SEGMENT 1 - BEACH ROAD SUP TO EDGARTOWN-VINEYARD HAVEN SUP
SECTION 1.2 - BEACH ROAD - SWEETWATER RESTAURANT TO FIVE CORNERS INTERSECTION

ALT 1A - CONTINUATION
would provide a continuation of the SUP to the Sweetwater Restaurant and then continue bike access via bike lanes through the downtown area. However, the transition between Alternatives 1A and 1B introduces a crossing on Beach Road where westbound bicyclists would need to cross from the SUP on the south side of Beach Road to the north side of Beach Road to travel with traffic in the westbound shoulder. Visibility and safety of this crossing are critical elements to the success of this plan.

Consideration should be given to utilizing the open space adjacent to the Sweetwater Restaurant as a potential bicycle rest area with bike parking and other amenities. This would give cyclists an opportunity to leave their bikes and utilize the sidewalk and/or paths into town center. In addition, as will be discussed in the next section, there are alternatives that could continue an off-road SUP around the downtown area to the Edgartown-Vineyard Haven Road SUP.

2.1.3 Section 1.3 – Connection between Beach Road and Lagoon Pond Road

Section 1.3 provides a critical connection between Beach Road and Lagoon Pond Road and will require significant land takings or donations and cooperation from various businesses and individual land owners in the area. Figure 4 illustrates four alternatives 1C, 1D, 1E and 1F to connect these areas. Each of these proposed paths would consist of a 10 foot SUP with 2 foot graded shoulders (14 ft ROW required).

Alternative 1C (solid red) would provide a dedicated SUP through the open parcel adjacent to the Sweetwater Restaurant and Tisbury Marketplace retail area. The path would continue adjacent to the Boat Yard facility building, the Hinckley Home Center Lumber Yard and 80 Lagoon Pond Road. While Alternative 1C routes the SUP further to the west along what appears to be the property line of the boat yard, Alternative 1C(1) (solid yellow) provides an option to locate the SUP further to the east adjacent to the parking area for the Tisbury Marketplace. Alternatives 1C and 1C(1) would require right of way or easements from approximately 4-5 properties. While Alternative 1C is desirable because it runs along the property line and would have the least impacts on the two adjacent properties, it appears, based on site visits, that the structure to the east is utilized by the boat yard and this alignment could introduce a conflict or crossing area, where the access to the existing structure would be forced to cross the SUP from other areas of the boat yard. By locating the path further to the east as depicted in Alternative 1C(1) this potential crossing is eliminated.
SEGMENT 1 - BEACH ROAD SUP TO EDGARTOWN-VINEYARD HAVEN SUP
SECTION 1.3 - CONNECTION BETWEEN BEACH ROAD AND LAGOON POND ROAD
Alternative 1D (solid blue) would provide access between Beach Road and Lagoon Pond Road between 45 and 47 Beach Road, traverse the Hinckley Lumber Yard southerly property line and again utilize a portion of 80 Lagoon Pond Road to complete the link. This option would require right of way or easements from 3-6 land owners and the location of the path would need to be coordinated with owners to minimize conflicts. Both alternatives 1C and 1D require routing the SUP through an actively working boat yard and lumber yard. The goal would be to construct the SUP as close to the property lines as feasible to minimize impacts and operations of these land uses.

Alternatives 1C and 1D would access Lagoon Pond Road just east of the existing parking lot entrance for the Veteran’s Memorial Field. A brief section of SUP adjacent to Lagoon Pond Road would be necessary to connect to the Veteran’s Memorial Field Access Drive, where it would be expected that the SUP would continue as described in detail under options 1G, in Section 1.4.

Alternative 1E (solid green) would impact 2-3 parcels and would access Beach Road between 25 and 29 Beach Road. The SUP would utilize the existing driveway/access road adjacent to the Thrift Shop on Chicken Alley. This alignment would connect to Lagoon Pond Road opposite 39 Lagoon Pond Road. This parcel was for sale at the time of the site visit (August 2008) and directly abuts the Veteran’s Memorial Field. If it were possible to acquire this parcel, a direct connection could be provided between the fields and Beach Road.

Alternative 1F (solid pink) was also explored. This alternative would access Beach Road similar to Alternative 1E, however, rather than utilizing the access adjacent to the Thrift Shop, Alternative 1F would create a path behind and adjacent to 26-32 Lagoon Pond Road to intersect Lagoon Pond Road in the vicinity of the Post Office. This option would impact between 3-5 property owners.

Sections 1.1, 1.2 and 1.3 present the biggest challenges in meeting the goals of the project. While Alternative 1C, when paired with Alternative 1A, fulfills the goal of providing a continuous off-road SUP to Lagoon Pond Road, access through or adjacent to the boat yard and lumber yard present a number of challenges including right-of-way issues and conflicts with existing business operations.

While Alternatives 1D, 1E and 1F reduce these conflicts, the SUP along Beach Road would need to extend along the southerly side of Beach Road to connect to these paths. As previously discussed this option (Alternative 1A) eliminates the sidewalk along the northerly side Beach Road and may create accessibility issues for disabled persons.
2.1.4 Section 1.4– Lagoon Pond Road to Causeway Road

The proposed connection through the Veterans Memorial Field is illustrated in Figure 5. Because of the presence of wetlands along the southerly side of the field, the SUP is proposed along the northerly side of the field. The proposed alignment is shown as Alternative 1G (red) and provides access to Lagoon Pond Road via the existing parking lot and driveway on the southerly end of the fields. This access would align with either Alternatives 1C or 1D (previously discussed) to simplify the crossing of Lagoon Pond Road.

Alternative access routes between the fields and Lagoon Pond Road were also examined. Alternative 1H (yellow) proposes an access via the property at 39 Lagoon Pond Road. If acquisition of this parcel was possible, the proposed access to the fields would align well with Alternative 1E, as discussed as part of Section 1.3.

Alternative 1I (blue) proposes access via the Post Office property. If land could be acquired from the Post Office, or an easement could be established, access between Lagoon Pond Road and Veterans Memorial Field could be established on the southerly limits of the Post Office Parcel. This would require reconfiguring the parking lot to relocate the existing 8-9 spaces on the southerly property line and may result in a reduction of 1-3 spaces. However, further review of the parking layout and configuration may result in a revised parking plan that could reallocate parking and offset any potential loss of spaces. The SUP route through the Post Office would align with Alternative 1F, as discussed in Section 1.3.

Also indicated in Figure 5 is a potential connection to the Ferry Terminal (alternative 1J in green). There is currently a 5.5 foot sidewalk between the Fire Station and Post Office properties with a low retaining wall adjacent to the Fire Station parcel. This allows a connection for pedestrians or people walking their bikes from the proposed SUP in the Veterans Memorial Field to South Main Street. However, the path is currently not wide enough to be designated as an official SUP. Based on discussions with local officials, it was discovered that the existing Fire Station on South Main Street may relocate in the future. If the Fire Station was relocated and/or this pedestrian path adjacent to the Fire Station could be widened, a dedicated SUP could be provided to connect to South Main Street. Access would then be possible via an at-grade crossing to continue along Cromwell Lane. Because of the low volume of vehicular traffic on Cromwell Lane, “Shared Road” signing could be established along Cromwell Lane to provide bike and pedestrian access directly to the convenience station and steamship terminal area.

Access between Causeway Road and the Veterans Memorial Field SUP is proposed via the existing maintenance access road to the north of the property. Alternative 1K (pink) examines the potential to maintain the SUP on the Field property and extend the SUP to the southerly parking/access drive on Causeway Road. This would reduce the need for construction of an SUP along Causeway Road between the two driveways and eliminate any potential conflicts between the parking on the easterly side of Causeway Road.
There are opportunities in Section 1.4 to further address the goals of the study by providing additional facilities for pedestrians and cyclists. There are currently rest room facilities provided at the maintenance shed building on the northwest corner of the fields, this area could be expanded to provide bike storage racks to encourage use of the recreational fields and as a departure point to access the downtown area as a pedestrian. Similar opportunities for additional bike storage is possible on the northeast corner of the parcel, where bikes could be stored and the existing pedestrian access adjacent to the Fire Station and Post Office could be better utilized.

2.1.5 Section 1.5 – Causeway Road to Edgartown-Vineyard Haven Road

Connecting between the Veterans Memorial Field and Edgartown-Vineyard Haven Road, the alternatives explore the potential for utilizing the existing roadway ROW of Causeway Road, Skiff Avenue, and Mount Alderworth Road as well as potential access through private parcels. As illustrated in Figure 6, Alternative 1L (red) explores the potential to provide a dedicated SUP along the Causeway Road ROW. Based on available GIS mapping, it appears that the ROW of Causeway Road is approximately 30 feet (27-31 feet). To provide the desirable SUP cross section adjacent to the roadway would require at least 39 feet to accommodate two 10 foot travel lanes with a 1 foot shoulder area as well as a 10 foot SUP with 5 foot separation from the roadway surface. Two additional feet of shoulder would be required adjacent to the SUP for clearance and comfort of SUP users. Land takings or easements of between 8-12 feet would likely be required along the majority of the roadway to accommodate an SUP.

Along Causeway Road it may be necessary to consider reducing the SUP width and offset from the roadway. If the SUP were reduced to 8 feet with a 2 foot offset from the edge of pavement and the vehicle travel lanes were reduced to 10 feet with no shoulder area, the minimum ROW could be reduced to 32 feet. If construction of this portion of the SUP network were constructed with State or Federal funding assistance, Design Waivers would be required to accommodate reductions to the SUP and roadway cross section.

As illustrated in Figure 6, Alternatives 1M and 1N would utilize Mount Alderworth Road and Delano Road as well existing ROWs along Cat Hollow Lane and Lobster Alley to provide access between Edgartown-Vineyard Haven Road and the Veterans Memorial Field. At the end of the Cat Hollow Lane ROW, Alternative 1M (yellow) would utilize Cat Hollow Lane and extend the SUP through an undeveloped parcel under private control to access Causeway Road. Alternative 1N (blue) deviates from Alternative 1M and utilizes the existing ROW of Lobster Alley and two additional private parcels to intersect Causeway Road in the vicinity of the southerly parking lot entrance to the Veterans Memorial Fields. Based on a review of topographic mapping there is a significant grade difference between Delano Road and Causeway Road dropping nearly 60 feet from an elevation of approximately 75 feet to 15 feet. This translates into an average slope of between 8% and 11% for the SUPs. This grading is less than ideal for a recreational SUP and should be avoided if possible.
Alternatives 1O, 1P and 1Q in Figure 7, explore potential cross sections and roadway treatments to accommodate bicycle and pedestrian traffic along the Skiff Avenue ROW between Causeway Road and Edgartown-Vineyard Haven Road. Based on a review of the GIS Mapping, it appears that Skiff Ave has a ROW of approximately 40 ft (38-41 feet). The current configuration of Skiff Ave provides a wide lane/shoulder combination eastbound allowing for on-street parking. However, based on field observations and discussions with local officials, the on-street parking is rarely used and can be eliminated in order to provide improved bicycle and pedestrian accommodations.

If parking were eliminated along this portion of Skiff Avenue, a dedicated SUP could be provided within the existing ROW as illustrated in Alternative 1O (solid red). It is likely that the construction of the SUP would require complete reconstruction and realignment of the roadway to ensure that both the SUP and the roadway were within the ROW. While a dedicated SUP is typically the most desirable routing for bicycles, the grade of Skiff Avenue is a concern with Alternative 1O. Because eastbound cyclists will be traveling downhill and entering a horizontal curve just east of Renear Street, there could be the potential for head-on conflicts between westbound cyclists or with pedestrians on the SUP. The width of the SUP could be increased to 12 or 14 feet and striped with a centerline to reinforce the two-way travel on the path; however, this would require additional ROW along the corridor. Warning signs could also be utilized along the SUP to help provide additional guidance to cyclists.

Alternative 1P (solid blue) addresses these concerns by providing a one-way SUP along both sides of Skiff Avenue. To provide one-way SUPs adjacent to Skiff Avenue the minimum width would be 6 feet, with a 2 foot graded shoulder and 5 foot separation from the roadway surface. With 10 foot travel lanes and a 1 foot shoulder, this would require a 48 foot ROW. One way SUPs are generally not recommended as enforcement of the one-way travel by bicyclists is not possible and generally two-way usage will occur.

Alternative 1Q (dashed red), eliminates a dedicated SUP along Skiff Avenue, but restrripes the pavement surface to provide 11 foot travel lanes with 4-5 foot bike lanes. This alternative would maintain the existing sidewalk on the southerly portion of Skiff Avenue and likely require only the roadway surface, however, it does not achieve the overall goal of the study; to provide a continuous dedicated network of SUPs throughout the island.

Because of the grading along Skiff Avenue, consideration of a combination of alternatives 1P and 1Q may be appropriate for this section. Within the 40 foot ROW, two 5.5 foot sidewalks could be provided with 4 foot bicycle lanes and 11 foot travel lanes. This would result in a roadway cross-section of 41 feet, requiring only minor easements or takings to accommodate. By providing “sidewalks” rather than SUPs on both sides of Skiff Avenue, the required 5 foot offset from the travel lane is not required. In addition, the 2 foot graded shoulder adjacent to the SUP would not be necessary. While not encouraged, the sidewalk area could be used by recreational bicycle riders (families, young children, etc.) and provide the desired access for
pedestrians, wheelchair users, roller bladders, etc. while the on-pavement bike lanes would service the more experienced riders and function as the official bike route.

2.1.6 Section 1.6 –Edgartown-Vineyard Haven Road

Alternative 1R (red) on Figure 8 illustrates the final section of Segment 1 and explores the potential to extend the existing Edgartown Road-Vineyard Haven SUP from its current terminus adjacent to Sanborn Way to Skiff Avenue. Based on the available GIS mapping, it appears that the ROW along Edgartown-Vineyard Haven Road varies from approximately 50 feet in the vicinity of Sanborn Way to approximately 70 feet. There is currently a striped shoulder provided along the westerly side of the roadway in addition to a grass strip and sidewalk. Alternative 1R would require 52 feet of ROW and would provide a 10 foot SUP, separated from the roadway by 6 feet. In addition, an 8 foot shoulder or parking lane would be maintained on the westerly side of the roadway and 12 foot travel lanes would be provided and a two foot shoulder would be provided on the easterly side. While it appears that a SUP may be feasible with limited reconstruction of the roadway surface, a detailed base survey would be required to establish the alignment of the roadway within the ROW and determine if alignment changes were necessary to ensure the SUP, parking, roadway surface and shoulders all fell within the existing ROW.

2.1.7 Segment 1 Summary

Alternative 1A would provide an SUP adjacent to Beach Road and extend the existing path to the northwest from its current terminus at Wind’s Up Watersports to approximately the Sweetwater Restaurant. There appears to be sufficient ROW available so that the majority of the path could be constructed within the ROW, with potential Design Waivers required to reduce the path width and/or offset from the roadway along portions of the SUP. The construction of the path would likely require reconstruction of the roadway in order to keep the entire facility within the available ROW. This would significantly increase the cost of the project.

From the Sweetwater Restaurant north to the Five Corners Intersection, the current configuration provides sidewalks on both sides of the road. In order to maintain the current pedestrian accessibility in this area, consideration should be given to providing bike access further into the downtown area via on-street bike lanes. This configuration, would provide a continuous bike facility into Vineyard Haven, but would require an at grade crossing at the transition from the SUP to the Bike Lanes.

To connect from Beach Road to the Veterans Memorial Field, Alternative 1C would achieve the goal of providing a continuous SUP link around Vineyard Haven but will require ROW or easements to cross privately owned parcels. Alternative 1E would have the fewest impacts to area properties and provide the shortest and most direct route. However, this would require
extending an off-road SUP along Beach Road, beyond the Sweetwater Restaurant, which as discussed, could impact pedestrian access along the corridor. Alternative 1E is most successful if the acquisition of 39 Lagoon Pond Road were possible.

In order to enhance the experience for users of the SUP and to further achieve the goals of the study, any option along Beach Road should explore the potential to utilize the open space adjacent to the Sweetwater Restaurant as a bike rest facility. Provisions for bike storage, trail information and potentially restroom facilities could be provided.

Access through the Veterans Memorial Fields via Alternative 1G would have the least impact on the operations of the playing fields and locate the SUP furthest away from the wetland areas. The SUP through the field presents opportunities to provide bike rest areas or other facilities for cyclists in the vicinity of the existing maintenance shed and/or adjacent to the pedestrian path between the Post Office and the Fire Station.

Access between the field and Edgartown-Vineyard Haven Road is recommended via Causeway Road (Alternative 1L) and Skiff Avenue (Alternatives 1O, 1P or 1Q). The critical element along Causeway Road will be the availability of ROW and or feasibility of providing a reduced cross section. The section of SUP along Skiff Avenue may require some modifications to the traditional SUP cross section to provide a safe link for pedestrians and cyclists. Alternatives 1M and 1N not only require the path to pass through private lands, but would also require significant vertical grades (greater than 8%) for the paths, which would not be conducive to a recreational bike path. Continuation of the SUP along the westerly side of Edgartown-Vineyard Haven Road appears to be possible, with few impacts to adjacent parcels.

Table 1 presents a summary of the various costs associates with the alternatives discussed in Segment 1.

Completion of the Segment 1 links will provide a continuous SUP network from the existing terminus of the Edgartown-Vineyard Haven Road SUP to Winds Up on Beach Road. An 8 foot SUP currently exists from Winds Up Air to the Town Landing. As part of the replacement of the Lagoon Pond Drawbridge, MassHighway is committed to incorporating an SUP on the new bridge that extends the SUP from the Town Landing to the Oak Bluffs end of the bridge. This leads into the next missing link, Segment 2 – Drawbridge to County Road SUP.
<table>
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<tr>
<th>Alternative</th>
<th>Section</th>
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<th>Estimated Cost</th>
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</table>

1Construction Cost - Does not include any land acquisitions.
2.2 **Segment 2-Drawbridge SUP to County Road SUP**

The desire through this segment is to provide a safe SUP, from the drawbridge to the County Road bike path with eventual continuation of a path to Sunset Lake via alternatives discussed under Segment 3.

The current provisions for bicycles through this area are limited to a temporary marked and signed path through the access road to the Hospital, continuing through the parking lot of the Hospital and exiting to Eastville Avenue in the vicinity of Temahigan Avenue. The path shares the driveway with vehicles and meanders through the parking lot where conflicts with pedestrians and vehicles are prevalent. There are currently no provisions for bicycles from the drawbridge to the Hospital entrance on Beach Road.

As part of the reconstruction of the Hospital, a new 8 foot SUP is proposed. While the new SUP separates the SUP from the access road to the Hospital, it does still function as a driveway to two parcels. While the use of the path by motor vehicles is expected to be minimal, appropriate signing should be provided indicating the path is shared with vehicles and consideration should be given to providing a wider 12 to 14 foot path in the areas where vehicle travel is anticipated. In addition, the proposed path should be clearly marked to direct cyclists, particularly eastbound cyclists, that the appropriate route diverts from Beach Road. The current, temporary path is not easily identified as a viable route to cyclists, and without adequate signing, many cyclists may simply choose to stay on Beach Road and not utilize an SUP through the Hospital.

On Eastville Avenue, east of Temahigan Avenue a bike path is provided from the Hospital access point to the current path on County Road, however it is at grade with the roadway surface, and separated from motor vehicles by only pavement markings. This provides no protection for users of the SUP as the path provides two way flow resulting in cyclists being forced to ride head-on into oncoming traffic.

Figure 9 illustrates five alternative alignments for potential SUPs through this area. Alternative 2A (red) proposes an SUP on the southerly side of Beach Road from the current terminus at the drawbridge to the proposed route through the Hospital property. It appears that the ROW of Beach Road through this area is between 38 feet and 40 feet which could accommodate a 10 foot SUP with 5 foot separation from the travel way. Ten and one-half (10.5 foot travel lanes with 1 foot shoulders could be provided. If wider travel lanes or shoulders were desirable, additional ROW may be required.

Alternative 2B (yellow) utilizes the proposed 8 foot SUP to be created as part of the newly reconstructed Hospital property to provide a connection from Beach Road to the Temahigan Avenue intersection. It is assumed that this SUP will be built as part of the Hospital project, therefore no costs have been developed for this alternative.
Based on a review of the available Beach Road ROW between the Hospital drive and the Temahigan Avenue intersection it appears that it may be feasible to continue the SUP adjacent to Beach Road through this area. This is depicted as Alternative 2C (blue) on Figure 9. It appears that the ROW through this area is between 36 feet and 38 feet. With minor acquisitions (2 to 4 feet) the 10 foot SUP could continue along Beach Road.

Similarly, it appears that there is approximately a 40 foot ROW on Eastville Avenue between Temahigan Avenue and County Road. Alternative 2D (green) illustrates a 10 foot path separated from the roadway by 5 feet, rather than the current at-grade, on roadway path. Due to the grade on the southerly side of Eastville Avenue, a small retaining wall may be necessary to accommodate the SUP adjacent to the roadway.

Alternative 2E (pink) represents an option to providing the SUP adjacent to Beach Road. This alternative explores the potential to create a new SUP along the Power Line right of way connecting to the Beach Road, Temahigan Ave, Eastville Avenue intersection via the back of the Hospital property. This option would have significant impacts on wetland and priority resource areas and would require the construction of a bridge structure to cross the inlet waterways. In addition, the path would require acquisition of multiple easements through private parcels in order to construct the SUP. However, the SUP would provide a more scenic landscape and completely eliminate any potential conflicts between motor vehicles and cyclists or pedestrians.

Recent bike path projects have utilized long term (99 year) lease agreements with utility companies to utilize utility ROWs to construct the paths. This is a new concept and may become more popular to utilize these open areas for creation of SUPs.

### 2.2.1 Segment 2 Summary

Based on the major work required in wetland areas as well as the need to construct a bridge to cross the water inlets, Alternative 2E is not recommended as the primary SUP. However, an alignment through this area could be considered as a longer term alternative to provide a more rustic path. This could be a narrower, unpaved (stone dust) trail with portions through critical wetland areas constructed as a board walk.

The recommended SUP alignment through this segment would be a combination of alternatives 2A, 2B or 2C and 2D to provide a continuous SUP from the drawbridge to the County Road bike path. Table 2 presents a summary of the various alternatives and costs.
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<th>Alternative</th>
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*Construction Cost - Does not include any land acquisitions.*
Segment 3 evaluates several alternatives to provide a connection from the County Road SUP to Sunset Lake in downtown Oak Bluffs. This Segment has been divided into two sub sections. Section 3.1 will examine a connection from County Road to Towanticut Street, while Section 3.2 examines connections to provide an SUP between Towanticut Street and Sunset Lake.

### 2.3.1 Section 3.1 – County Road to Towanticut Street

The current layout of the intersection of Eastville Avenue and County Road presents challenges to bicyclists. The eastbound right turn from Eastville Avenue to County Road is a high speed movement with little deflection. With the existing bicycle path crossing in its current location, high speed right turning vehicles have poor visibility of cyclists crossing the westerly leg of County Road. On the Easterly leg of County Road, the location of the crosswalk and alignment of the intersection forces vehicles to stop beyond or within the marked crosswalk, rather than behind it.

In order to address these issues, consideration should be given to reconfiguring the intersection as a standard “T” intersection and eliminate the island. A conceptual plan has been developed for this intersection as part of the traffic study completed for the Martha’s Vineyard Hospital. This concept realigns the intersection to align Eastville Avenue and County Road as the “mainline” road, while Eastville Avenue east of County Road intersects at approximately 90 degrees. This alignment is illustrated in Figure 10. As illustrated, the proposed alignment would create two SUP crossings, one along Eastville Avenue/County Road and one on the STOP controlled Eastville Avenue reconfigured approach. Because of the location of the mainline crossing on a horizontal curve, the location would have to be closely analyzed to ensure sufficient visibility of cyclists and appropriate sight lines for motorists were provided.

Alternatively, County Road could be reconfigured to intersect Eastville Avenue in a tighter “T” intersection as illustrated in Figure 11. The radius on the southwest corner would be reduced to force eastbound vehicles to slow before making the right turn from Eastville Avenue to County Road, rather than the current high speed free right turn movement. The crosswalk location would be moved further to the north and the STOP line would be placed behind the crosswalk. This configuration would reduce the number of conflict points between path users and vehicles, slow the vehicular traffic and provide an opportunity for a bike rest area or other facility (information kiosk with trail information) within the additional green space that would be created in the southwest corner of the intersection. This option would only require one at-grade crossing, and would provide increased visibility of cyclists. Further evaluation of the traffic volumes and travel patterns would be necessary to further evaluate the operational benefits or constraints of the two conceptual plans.
FIGURE 10
REALIGNMENT OF COUNTY ROAD AND EASTVILLE ROAD
(HOSPITAL PLAN)

Eastville Avenue at County Road
Conceptual Intersection Modifications (By Others)

To Martha’s Vineyard Hospital

Proposed Future Bikeway

Existing Bikeway

Aerial Source: MassGIS
Figure 12 illustrates Alternatives 3A, 3B and 3C which highlight alternative SUP alignments between County Road and Towanticut Street. Alternative 3A (red) provides a 10 foot SUP adjacent to Eastville Road. Based on the GIS Mapping it appears that the ROW along this section of Eastville Road is approximately 37 feet. However, survey plans available from the Town indicate that a 41 foot ROW is available. Therefore it appears that a 10 foot SUP could be provided with a separation of 5 feet from Eastville Road, while providing 10.5 foot travel lanes with 1-2 foot shoulders. The SUP is proposed along the southerly side of Eastville Avenue to minimize impacts to abutting properties. The majority of the homes along the southerly side of the corridor are generally set back from the roadway with trees and other vegetation providing a visual screen from the roadway. Providing the SUP on this side would minimize any impacts to abutters. While the proposed cross section appears to be attainable within the existing ROW, because the existing roadway cross section is generally centered within the ROW, the construction of the SUP along this section would require a complete reconstruction of the roadway to provide the entire cross section within the available ROW. Alternatively, if ROW or easements could be acquired along the corridor, it may be possible to provide the SUP adjacent
to the existing roadway without modifying the alignment. This would require easements or takings from approximately 11 parcels.

Alternative 3B (yellow) examines the potential to utilize the Linton Avenue ROW to create an SUP between County Road and Towanticut Street. Currently Linton Avenue consists of a dirt road/path in this area. The goal along this section would be to construct a 10 foot SUP with a minimum 5 foot separation from the existing dirt road, without altering the alignment of the existing dirt roadway, or significantly changing the character of the existing access. It appears that Linton Avenue has a 40 foot ROW which should provide sufficient width to accommodate both the existing dirt road and a 10 foot SUP. However, accurately establishing where the current dirt road lies within the existing ROW is critical to understanding the true impacts of this alternative. In order to be more consistent with the character of this area, (i.e. very low volume dirt road), providing a modified surface for the SUP might be considered. Surface treatments such as sandstone would not have the visual impact of a paved 10 foot SUP through this area and can provide an acceptable riding surface for bicyclists. Annual maintenance of this type of path is critical to ensure a safe and smooth riding surface.

Alternative 3C (blue) may be necessary to connect Alternative 3A or 3B to a continuation of the SUP as discussed in Section 3.2. Based on a review of the apparent ROW along Towanticut Street (40 feet) it appears that an SUP could be created within the ROW. Again, the reconstruction of the entire road and SUP may be necessary to accommodate the entire cross section within the ROW.

2.3.2 Section 3.2 –Towanticut Street to Sunset Lake

As illustrated on Figure 13, Alternative 3D (red) examines the potential to provide an SUP adjacent to the Towanticut Street and New York Avenue roadway surfaces. The ROW along Towanticut Avenue appears to vary from approximately 38 feet to 45 feet, while the ROW along New York Avenue appears to be approximately 50 feet. With a minimal acquisition of 2 feet to provide a 40 foot ROW, a 10 foot SUP, offset from the roadway by at least 5 feet could be provided along Towanticut Street.

New York Avenue was recently reconstructed and the shoulder area was increased to provide wider shoulders for bicyclists. Based on an apparent ROW of 50 feet, there appears to be sufficient ROW to provide a 10 foot SUP along the southerly side of New York Avenue. However, based on a site review, it appears that abutting properties may be utilizing portions of the ROW for walls, gardens, fences, etc. A detailed review of the existing roadway alignment and ROW, as well as ground survey, is necessary to fully evaluate the impacts of providing an SUP along this section. The advantage of providing the SUP adjacent to these roadways is that it provides a familiar and logical route between SUPs that may be created under Segments 1 and 2 and the downtown Oak Bluffs area. In addition, it does not require significant construction through undeveloped lands.
Alternatives 3E and 3F examine the use of existing rights of ways to provide an SUP between Towanticut Street and Sunset Lake. There appears to be several “paper” streets in this area including Paulding Avenue, Huntington Avenue, Linton Ave and South Street. Alternative 3E (yellow) proposes a 10 foot SUP along the Paulding Avenue ROW. Based on aerial imagery and GIS mapping it appears that this ROW is largely unused. There appear to be residential driveways off Hampson Ave and Lawrence St however, with an apparent 40 foot ROW along Paulding Avenue it would appear that an SUP could be provided without impacting the character of the existing dirt road/pathways. Alternative 3E would continue along the Huntington Avenue ROW to Rowland Avenue to access the open space parcel adjacent to Sunset Lake. The small section of SUP along Rowland Avenue would be accommodated through a 10 foot SUP adjacent to the existing roadway surface. It appears that the ROW along Rowland Avenue in this area is in excess of 50 feet and is sufficient to accommodate an SUP with sufficient offset from the roadway.

Alternative 3F (blue) is similar to Alternative 3E but utilizes the existing Linton Ave and South Street ROWs. Based on field visits, it appears that there are more abutters along this portion of Linton Avenue and a crossing through a private parcel is necessary just west of the Meriton Avenue at the Linton Avenue intersection. Alternative 3F would also utilize a segment of Pacific Avenue to access Huntington Avenue where it would follow the same alignment as Alternative 3E to access Sunset Lake.

It should also be noted that as part of separate projects alternatives have been examined to provide bicycle accommodations along New York Avenue from Sunset Lake into downtown Oak Bluffs. Furthermore, the reconstruction of Oak Bluffs Avenue and Lake Avenue will provide bike lanes from the area of Nancy’s Restaurant to Sea View Avenue. Conceptual plans developed for various cross sections of New York Avenue between Sunset Lake and Nancy’s Restaurant as well as the design plans for Oak Bluffs Avenue and Lake Avenue are included in the Appendix for reference.

2.3.3 Segment 3 Summary

One of the major goals of providing SUPs is to minimize conflicts between motor vehicles and bicyclists. Therefore, providing an SUP via Alternatives 3B, 3E or 3F would achieve the goal of providing a dedicated SUP away from major roadways. It appears that sufficient ROW is available along the northerly portion of Linton Avenue as well as along the currently unused or minimally used Paulding Avenue/Huntington Avenue ROWs. Gaining acceptance from residents abutting these minimally used ROWs will be critical to the success of utilizing these areas. While some residents may see a path as development or a disturbance, the presence of the SUP could also provide a valuable asset to the properties. In addition, privacy, visual screening and sound attenuation may be feasible through proper landscaping adjacent to the trail. Alternative surface treatments or materials such as stone dust paths may also provide a more aesthetic type of path rather than bituminous pavement. While a paved surface is the most
desirable in terms of ridability and maintenance, AASHTO does indicate that stone dust is a suitable surface treatment for SUPs. However, additional maintenance would likely be required to ensure a smooth surface.

If utilization of the available public ROWs to provide an SUP is not possible, Alternatives 3A and 3D appear to be feasible within the available ROW with minimal acquisitions from abutters. However, it is likely that a full reconstruction of the roadways would be required to provide the entire cross section within the existing or modified ROW. Table 3 presents a summary of the various alternatives and costs.

Each of the Alternatives examined in Segment 3 terminates in the vicinity of Sunset Lake. The existing open space to the west of the lake provides a tremendous opportunity to fulfill the goals of the project; to provide a bike rest area, with storage, potential information kiosks and restroom facilities. Furthermore, one of the goals is to attempt to bring bike facilities as close as possible to the downtown areas. Facilities at this location would also provide the opportunity for bicyclists to store their bikes and walk into downtown Oak Bluffs. In addition, plans have been developed to provide on-street bike lanes from Sunset Lake, along New York Avenue and Oak Bluffs Avenue, to Sea View Avenue.

### 2.4 Segment 4-Perimeter SUP and Sea View Avenue

Segment 4 has been divided into three sub sections Section 4.1, Section 4.2 and Section 4.3. Section 4.1 discusses alternatives to extend the existing SUP on Sea View Avenue into, or as close as possible, to Oak Bluffs on the south side of Downtown Oak Bluffs. Section 2 examines the potential to provide an SUP through Waban Park and terminate at Circuit Avenue and Section 4.3 examines the potential to provide a link between the Circuit Avenue terminus and the SUPs at Sunset Lake.

#### 2.4.1 Section 4.1 – Sea View Avenue Extension

Section 4.1 examines the potential to extend the current Sea View Avenue SUP that terminates abruptly south of South Circuit Avenue, into the downtown Oak Bluffs Area. This portion of Sea View Avenue is one of the most constrained areas examined in the study. There is an existing sidewalk on the easterly side of Sea View Avenue adjacent to the seawall that varies in size from less than 6 feet to more than 10 feet. Given that the sidewalk is adjacent to the beach area and provides such amenities as bench seating, it would be less than desirable to significantly reduce the width of the sidewalk. Furthermore, on street parking is provided along the easterly side of Sea View Avenue adjacent to the sidewalk. Again, significantly reducing the on street parking adjacent to the beach area is not preferred.
<table>
<thead>
<tr>
<th>Alternative</th>
<th>Section</th>
<th>Start</th>
<th>End</th>
<th>Construction</th>
<th>Length</th>
<th>Cost per ft</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alt 3A</td>
<td>3.1</td>
<td>County Rd</td>
<td>Towanticut St</td>
<td>Roadway with Adjacent Path</td>
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<td>$600.00</td>
<td>$840,000.00</td>
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<tr>
<td>Alt 3B</td>
<td>3.1</td>
<td>County Rd</td>
<td>Towanticut St</td>
<td>Path Only</td>
<td>1,200</td>
<td>$175.00</td>
<td>$210,000.00</td>
</tr>
<tr>
<td>Alt 3C</td>
<td>3.1</td>
<td>Eastville Ave</td>
<td>Linton Ave</td>
<td>Roadway with Adjacent Path</td>
<td>450</td>
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<td>$270,000.00</td>
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<tr>
<td>Alt 3D</td>
<td>3.2</td>
<td>Eastville Ave</td>
<td>Sunset Lake</td>
<td>Roadway with Adjacent Path</td>
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<td>$600.00</td>
<td>$1,950,000.00</td>
</tr>
<tr>
<td>Alt 3E</td>
<td>3.2</td>
<td>Towanticut St</td>
<td>Rowland Ave and Sunset Lake</td>
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</tr>
<tr>
<td>Alt 3F</td>
<td>3.2</td>
<td>Towanticut St</td>
<td>Pacific Ave and Sunset Lake</td>
<td>Path Only</td>
<td>3,200</td>
<td>$175.00</td>
<td>$560,000.00</td>
</tr>
</tbody>
</table>

*Construction Cost - Does not include any land acquisitions.*
As illustrated in Figure 14, it is feasible to provide a dedicated SUP along the entire portion of Sea View Avenue from the existing terminus south of South Circuit Avenue to Lake Avenue and Oak Bluffs Avenue. However, this configuration would require significant changes to the use and character of Sea View Avenue, particularly from Nantucket Avenue north to Lake Avenue.

The existing SUP south of South Circuit Avenue is approximately 8 feet wide with a separation from the Sea View Avenue roadway surface of approximately 2 feet. This current configuration does not meet current design standards, however in order to provide a continuous SUP along Sea View Avenue while minimizing impacts to on street parking and adjacent structures sidewalk widths, a design waiver to continue an SUP of a similar nature should be considered if State and/or Federal funding is anticipated for the construction.

Alternative 4A (red) is proposed between the current southerly terminus and South Circuit Avenue. Under the current alignment, the sidewalk on the easterly side of the roadway ends abruptly south of South Circuit Avenue. Alternative 4A would eliminate the short segment of sidewalk south of South Circuit Avenue, but would extend the SUP on the westerly side, providing protected pedestrian amenities.

Between South Circuit Avenue and Nantucket Avenue, Alternative 4B (yellow) provides a minimum 6 foot sidewalk which would be provided along the easterly side of Sea View Avenue. The sidewalk would clearly start at the intersection of South Circuit Avenue, and crosswalks would be provided to ensure a clear connection between the proposed SUP and the proposed sidewalk.

In the vicinity of Nantucket Avenue, Alternative 4C (blue) provides on street parking adjacent to the sidewalk on the easterly side of Sea View Avenue. This alignment would continue to approximately Ocean Avenue. From Ocean Avenue to Lake Avenue and Oak Bluffs Avenue, Alternative 4D (green) shifts the SUP to the west to utilize the available open space in Ocean Park. This would allow a full 10 foot path to be provided through the Park to Lake Avenue. Similarly, the path could utilize the existing open space between Ocean Avenue and Lake Avenue to extend the SUP to just south of Oak Bluffs Avenue. With the presence of the Police Station on the southwest corner of Sea View Avenue and Oak Bluffs Avenue, it is anticipated that Town land could be utilized to provide the last connection of the SUP to Oak Bluffs Avenue.

A dedicated SUP along the entire length of Sea View Avenue would have significant impacts on the character of the road as well as on parking and pedestrian access. There is currently a stone wall adjacent to Waban Park on the westerly side of Sea View Avenue. A wide shoulder is provided in this area that is currently used for on-street parking. In order to accommodate an SUP the parking on the west side of Sea View Avenue in front of Waban Park would be eliminated. If it were critical to maintain this parking the SUP would need to be located behind the stone wall, within Waban Park.
LEGEND:

- At-Grade Bike Crossing
- SUP Adjacent to Roadway
- Bike Lane or Shared Shoulder Use on Roadway
- Potential Bike Rest Area/Rocks, etc
- SUP Separate from Roadway

SEGMENT 4 - PERIMETER SUP AND SEA VIEW AVENUE
SECTION 4.1 - SEA VIEW AVENUE EXTENSION

FIGURE 14
NOT TO SCALE
Because of limited ROW and the fact that many of the structures on the westerly side of Sea View Avenue, particularly between Pequot Avenue and Ocean Avenue are located immediately adjacent to the roadway, the additional width required to provide the SUP would have to be taken from the existing sidewalk on the easterly side of Sea View Avenue. While fully ADA compliant sidewalks of at least 6 feet would be provided, the sidewalks would be significantly reduced from the existing 10 feet or more currently provided. However, a dedicated SUP would be provided along the southerly side of the street. If on-street parking were eliminated between Pequot Avenue and Ocean Avenue, the SUP could be provided along the westerly side of Sea View Avenue with minimal impacts to the sidewalk on the easterly portion of the road.

2.4.2 Section 4.2 – Perimeter SUP - Waban Park SUP to Circuit Avenue

Because of the impacts to the sidewalk and parking along Sea View Avenue, Alternative 4E (pink) was examined. As indicated in Figure 15, rather than providing a dedicated SUP to Oak Bluffs Avenue, Alternative 4E would provide an SUP through the Waban Park Area and utilize the southerly Nashawena Park dirt road to provide a dedicated SUP to Circuit Avenue. Within Waban Park it may also be feasible to provide a bike rest area with storage for bicycles. This would be consistent with the goals of the study to bring bikes as close to the downtown area on dedicated SUPs.

In conjunction with this plan, it appears that sufficient ROW is available to restrripe the existing Sea View Avenue corridor from Waban Park to Lake Avenue and Oak Bluffs Avenue to provide 11 foot travel lanes, 4 foot bike lanes and a 7 to 8 foot sidewalk on the easterly side of the street. This configuration would also support the goals of the study by providing bike access into the downtown area.

2.4.3 Section 4.3 – Perimeter SUP Circuit Avenue to Sunset Lake

Providing a continuous SUP between the potential terminus of the Sea View Ave SUP at Circuit Avenue and the SUPs proposed under Segment 3 terminating at Sunset Lake, provides a number of challenges. With closely spaced homes, narrow roads and vehicular traffic, providing a dedicated SUP without major impacts to the adjacent properties and/or structures, is difficult. Alternative 4F (solid red) in Figure 16 explores the use of ROWs along Circuit Avenue, through open space land associated with the Methodist Campground, Community Avenue, Siloan Avenue and Greenleaf Avenue. Based on GIS Mapping it appears that both Circuit Avenue and Greenleaf Avenue have ROWs of approximately 38-40 and could accommodate an SUP with minor land takings or easements. If use of the open space and roadways associated with the Campground is possible, access between Circuit Avenue and Greenleaf Avenue may be feasible. Alternative 1F illustrates one possible alignment; however, alternative alignments through this area may be feasible. Coordination with the Campground is necessary to determine the most appropriate route that would have the fewest impacts on the aesthetics or operations of the Camp Ground.
Alternative 4G (dashed red) explores an alternative to utilizing the Methodist Campground land and provides a connection between Waban Park and Sunset Lake via on-street bike lanes. The routing follows Warwick Avenue, Dukes County Road and Greenleaf Avenue. Based on GIS mapping, the ROW along these roadways appears to be between 30-38 feet and could provide 11 foot travel lanes and 4 to 5 foot shoulders within the existing ROW.

2.4.3 Segment 4 Summary

While it is possible to extend the Sea View Avenue SUP into the heart of Oak Bluffs, the alignment would require design waivers and have significant impacts on Sea View Avenue sidewalk widths and on-street parking. Based on the need for on-street parking and maintaining a significant sidewalk along the easterly side of Sea View Avenue, it appears that a dedicated SUP may not be feasible north of Waban Park. However based on the available ROW, the goals of the study could be achieved by providing bike lanes along Sea View Avenue to provide bike access into downtown Oak Bluffs, while a dedicated SUP around Oak Bluffs could divert through Waban Park and Nashawena Park and provide access to Circuit Avenue. IN addition, consideration should be given to providing a bike rest area with storage or other amenities within Waban Park.

Providing a dedicated SUP between Circuit Avenue at Nashawena Park and Sunset Lake may be feasible if access through the Methodist Campground is possible. This routing would achieve a major goal of the study by providing a continuous SUP network linking the Sea View SUP to Sunset Lake and the County Road SUP.

While the most desirable option would be to connect the Sea View Avenue SUP to Sunset Lake via a dedicated SUP, it is also feasible to provide bike lanes along Dukes County Road and Warwick Avenue to establish this link. Table 4 presents a summary of the various alternatives and costs.

2.5 Segment 5- Perimeter SUP Around Edgartown Center

The goal in this area is to provide a connection from the existing termini of the Beach Road, Vineyard Haven Road, West Tisbury and Katama SUPs with Edgartown Center. While it may not be feasible to provide an SUP directly to the Town Center, the goal would be to provide a path as close as possible to the Town Center.

Figure 17 illustrates several alternative bicycle routes through Edgartown. Because of the narrow ROWs, small land parcels and Historic Nature of Edgartown, providing a dedicated SUP through this area is difficult. Currently, bicycles are prohibited from Pease’s Point Way between High Street and South Water Street. Cyclists are directed along High Street and South Water Street, however no facilities (SUPs or bike lanes) are currently provided.
### TABLE 4
Segment 4 - Perimeter SUP around Oak Bluffs Town Center

<table>
<thead>
<tr>
<th>Alternative</th>
<th>Section</th>
<th>Start</th>
<th>End</th>
<th>Construction Level</th>
<th>Length</th>
<th>Cost per ft</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alt 4A</td>
<td>4.1</td>
<td>Existing SUP Terminus</td>
<td>South Circuit Ave</td>
<td>Roadway with Adjacent Path</td>
<td>620</td>
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<td>Alt 4B</td>
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<td>South Circuit Ave</td>
<td>Nantucket Ave</td>
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<td>Alt 4C</td>
<td>4.1</td>
<td>Nantucket Ave</td>
<td>Ocean Ave</td>
<td>Roadway with Adjacent Path</td>
<td>1,200</td>
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<td>$930,000.00</td>
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<tr>
<td>Alt 4D</td>
<td>4.1</td>
<td>Ocean Ave</td>
<td>Oak Bluff Ave</td>
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<td>1,300</td>
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<tr>
<td>Alt 4E</td>
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<td>Seaview Ave</td>
<td>Circuit Ave</td>
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<tr>
<td>Alt 4F</td>
<td>4.3</td>
<td>Tuckemuck Ave</td>
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<td>Path Only</td>
<td>3,400</td>
<td>$175.00</td>
<td>$595,000.00</td>
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<tr>
<td>Alt 4G</td>
<td>4.3</td>
<td>Ocean Ave</td>
<td>Oak Bluffs Ave</td>
<td>Restripe Roadway</td>
<td>2,400</td>
<td>$25.00</td>
<td>$60,000.00</td>
</tr>
</tbody>
</table>

*Construction Cost - Does not include any land acquisitions.*
The options presented in this section are a combination of dedicated off-road SUPs as well as bike lanes adjacent to existing roadways. Alternatives 5A, 5B, 5C₁, 5C₂ and 5C₃ explore potential connections between the West Tisbury SUP and Pease Point Way. Alternative 5A (solid red) provides a dedicated SUP along Cooke Street, between West Tisbury Road and Pease Point Way. Cooke Street appears to have a ROW of approximately 25 feet and a dedicated SUP adjacent to the road would require approximately 39 feet. However, providing a reduced SUP of 8 feet with a minimal separation from the road of 4 feet could reduce the required ROW to approximately 36 feet.

Alternative 5B (dashed red) explores potential improvements to bicycle access along Main Street into the downtown Edgartown area. Based on the constrained ROW east of Pine Street it appears that the most practical improvement is to restripe the existing pavement. It is recommended that the double yellow center line (DYCL) be restriped in the center of the pavement and 10 foot travel lanes be provided. The remaining pavement area should be utilized as shoulders for bicycles. This could provide 2-4 foot shoulders for cyclists and should be supplemented with “Share the Road” signs.

Alternative 5C₁ (dashed yellow) and Alternative 5C₂ (dashed blue) propose to utilize the newly constructed Robert’s Way and Robinson’s Road to provide bike access along the existing roadway surfaces between West Tisbury Road and Pease’s Point Way. Because of the ROW constraints on Robert’s Way, the bike accommodations would be limited to a “Share the Road” designation as there does not appear to be sufficient ROW or roadway surface to provide dedicated bike lanes. Based on available information it appears that the Robinson Road ROW is approximately 30 feet which could be configured to provide two 4 to 5 foot bike lanes with 10 to 11 foot travel lanes and no sidewalks. With appropriate waivers, an 8 foot SUP with 10 travel lanes and no shoulders (Alternative 5C₃ – solid yellow) could potentially be provided. This SUP cross section would require an additional 2 feet of ROW along Robinson Road to provide the absolute minimum cross section of 32 feet.

Alternative 5D (solid blue) provides a dedicated SUP along the westerly side of Pease’s Point Way between Main Street and High Street. ROW within this corridor appears to vary between 35 feet and 48 feet. While the ROW varies through this area, it appears that with 10 foot travel lanes and 1 foot shoulder, a 10 foot SUP could be created along the majority of the corridor with a minimum 2 foot separation from the roadway. The width of the SUP may have to be reduced to 8 or 9 feet, or additional ROW acquired along the narrower portion of the corridor to provide greater separation between the SUP and roadway.

Alternatives 5E and 5F explore connections between the intersection of Pease’s Point Way and High Street to the existing SUP along Katama Road. While bikes are currently prohibited from this section of Pease’s Point Way, Alternative 5E (green) explores the potential for providing a dedicated SUP along the westerly side of the Pease’s Point Way corridor. This would provide a route for cyclists that would be completely separated from vehicular traffic. ROW along this segment of Pease’s Point Way appears to be limited to between 31-33 feet with the narrowest
section in the vicinity of the Fire Station. In order to provide a 10 foot dedicated SUP separated from the travel way by at least 5 feet, approximately 39 feet of ROW would be required. Reducing the SUP to 8 feet and the offset from the roadway to 2 feet would reduce the ROW needs to 35 feet.

Alternative 5F (dashed green) explores the potential to provide bike shoulders or lanes along High Street. It appears that there is a limited ROW along High Street of approximately 30 feet. With this limited ROW it appears that the only viable alternative without requiring additional ROW is to restripe the roadway surface with 10 foot travel lanes and allocate the remainder of the roadway surface to a bike shoulder. If shoulder widths of less than 4 feet are provided the roadway should be signed with “Share the Road” and Bike Route signs indicating the presence of bicycles.

Alternative 5G (solid pink) provides a 10 foot SUP adjacent to South Water Street between Pease’s Point Way and High Street. It appears that the ROW along this segment is approximately 40 feet which is sufficient to create the desired SUP. However, it is likely that the roadway would have to be reconstructed to shift the road surface in order to construct both the roadway and SUP within the ROW.

2.5.1 Segment 5 Summary

Due to the narrow roadway network and historic nature of this area, it does not appear that a dedicated SUP between the West Tisbury Road SUP and the Katama SUP is practical. However, the goals of the study can be accomplished by providing a combination of SUPs and bike shoulders or bike lanes. Restriping Main Street between West Tisbury Road and Pease’s Point Way will improve the safety of cyclists by providing a wider shoulder area along one of the most popular routes for cyclists. On Pease’s Point Way, between Main Street and High Street, there appears to be sufficient ROW to create a dedicated SUP. However, south of High Street the ROW and alignment of Pease’s Point Way results in significantly more impacts if a dedicated SUP were to be created. The option through this area would be to utilize High Street to provide bike shoulders to South Water Street where a dedicated SUP could be provided to link to the Katama Road SUP. Table 5 presents a summary of the various alternatives and costs.
<table>
<thead>
<tr>
<th>Alternative</th>
<th>Start</th>
<th>End</th>
<th>Construction</th>
<th>Length</th>
<th>Cost per ft</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alt 5A</td>
<td>West Tisbury Rd</td>
<td>S Water St via Cooke St &amp; Peases Pt Way</td>
<td>Roadway with Adjacent Path</td>
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<td>$600.00</td>
<td>$510,000.00</td>
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<tr>
<td>Alt 5B</td>
<td>West Tisbury Rd</td>
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<td>Alt 5C₁</td>
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<td>South Water St</td>
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<td>Alt 5F</td>
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<td>1,150</td>
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<td>$690,000.00</td>
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</tbody>
</table>

*Construction Cost - Does not include any land acquisitions.
2.6 Segment 6- Meshacket Road and Clevelandtown Road

Providing a dedicated SUP along Meshacket Road and Clevelandtown Road would provide a valuable link between the West Tisbury Road SUP and the Katama Road SUP. This segment has been divided into two sub sections. Section 6.1 explores the potential for an SUP along Meshacket Road between West Tisbury Road and Road to the Plains. Section 6.2 explores the potential to continue an SUP along Clevelandtown Road between Road to the Plains and Katama Road.

2.6.1 Section 6.1 – Meshacket Road

While the GIS mapping indicates a ROW varying between 28 feet and 32 feet along Meshacket Road, survey mapping from the Town of Edgartown indicates a consistent 30 foot ROW between West Tisbury Road and Road to the Plains. Alternative 6A (red) in Figure 18 proposes a dedicated SUP along the northerly or easterly side of Meshacket Road. The Town recently resurfaced Meshacket Road and shifted the alignment to the south in anticipation of the creation of an SUP along this segment. While the ROW is 30 ft, 40 feet would be required to provide the desirable cross section consisting of a 10 foot SUP separated from the roadway by 5 feet and a roadway cross-section consisting of 10.5 foot travel lanes and a 1 foot shoulder. Therefore additional ROW or easements will be required to construct the SUP. Reducing the width of the SUP to 8 feet and/or the offset from the travel lanes to as little as 2 feet could reduce the ROW need to as little as 35 feet.

2.6.2 Section 6.2 – Clevelandtown Road

Based on GIS and aerial mapping the ROW on Clevelandtown Road appears to vary between 25 and 35 feet. However, maps available from the Town of Edgartown indicate a ROW of 35 feet east of Road to the Plains. Figure 19 illustrates Alternative 6B (yellow) along Clevelandtown Road between Road to the Plains and Katama Road. While the ROW is 35 ft, 40 feet would be required to provide the desirable cross section consisting of a 10 foot SUP separated from the roadway by 5 feet and a roadway cross-section consisting of 10.5 foot travel lanes and a 1 foot shoulder. Therefore additional ROW or easements will be required to construct the SUP. Again, reducing the width of the SUP to 8 feet and/or the offset from the travel lanes to as little as 2 feet could eliminate the need for additional ROW by providing a 35 foot cross section.
2.6.3 Segment 6 Summary

While ROW seems to be constrained along both Clevelandtown Road and Meshacket Road, there is limited development along these roadways and acquisition of additional ROW may be feasible. If possible, sufficient ROW should be acquired to construct the desirable 40 foot cross section that maximizes the width of the SUP and offset from the roadway. However, if ROW acquisition or easements are problematic, reduction of the SUP and offset from the roadway could be considered. Because this Segment is one of the largest segments proposed, eliminating the need to reconstruct the roadway would significantly reduce construction costs for this segment. Table 6 presents a summary of the various alternatives and costs.

2.7 Segment 7-West Tisbury Road SUP to Edgartown-Vineyard Haven Road SUP

This segment was not part of the original study area. However, a review of the GIS and aerial mapping indicates several “paper streets” or available ROWs that should be further explored to provide potential connections between the West Tisbury Road and Edgartown-Vineyard Haven Road SUPs.

As illustrated in Figures 20 and 21 Alternative 7A (red) explores the potential to utilize Ben Tom’s Road and Shady Oak Lane to link the West Tisbury Road and Edgartown-Vineyard Haven Road SUPs. It appears that these ROWs are minimal roadways consisting of dirt roads and pathways. A preliminary review of the ROW indicates that Shady Oak Lane appears to have a ROW of approximately 31 feet which should be sufficient to provide a 10 foot SUP adjacent to the dirt roadway without significantly changing the character of the area. Alternative 7A may require donations or acquisitions to provide a connection between Ben Tom’s Road and Shady Oak Lane.

Figures 22 and 23 illustrates Alternative 7B (yellow) which explores the potential to utilize Jemegan Pond Road and Clay Pit Road as well as several undeveloped parcels to provide access between West Tisbury Road and Edgartown-Vineyard Haven Road. Similarly, Alternative 7C (blue) explores the potential to utilize Pennywise Path rather than Clay Pit Road to access Edgartown-Vineyard Haven Road. These roadways are limited to dirt roads and pathways and provide access to abutting parcels.
<table>
<thead>
<tr>
<th>Alternative</th>
<th>Section</th>
<th>Start</th>
<th>End</th>
<th>Construction Level</th>
<th>Length</th>
<th>Cost per ft</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alt 6A</td>
<td>6.1</td>
<td>West Tisbury Rd (via Meshacket Rd)</td>
<td>Road to the Plains</td>
<td>Roadway with Adjacent Path</td>
<td>6,250</td>
<td>$600.00</td>
<td>$3,750,000.00</td>
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<tr>
<td>Alt 6B</td>
<td>6.2</td>
<td>Road to the Plains (via Clevelantown Rd)</td>
<td>Katama Rd</td>
<td>Roadway with Adjacent Path</td>
<td>2,750</td>
<td>$600.00</td>
<td>$1,650,000.00</td>
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</tbody>
</table>

1 Construction Cost - Does not include any land acquisitions.
LEGEND:

- Blue = Alt-Grade Bike Crossing
- Hexagon = Potential Bike Rest Area/Rocks, etc.
- Red = SUP Adjacent to Roadway
- Yellow = Bike Lane or Shared Shoulder Use on Roadway
- Orange = SUP Separate from Roadway

SEGMENT 7 - WEST TISBURY ROAD SUP TO EDGARTOWN-VINEYARD HAVEN ROAD SUP
(SHEET 4 OF 4)
2.7.1 **Segment 7 Summary**

Similar to alternatives proposed in Segment 3 that utilize available ROWs along paper streets or low volume dirt roads and paths, the cooperation of abutting residents is vital to the potential use of these ROWs. If the path is supported, these ROWs would provide valuable SUPs that would further enhance the SUP network on the Island and be consistent with the objectives of the study. A valuable link could be provided between the existing SUPs on Edgartown-Vineyard Haven Road and West Tisbury Road with minimal ROW takings necessary.

Consideration of alternative surfaces such as stone dust may be warranted along these segments. In addition, appropriate landscaping and screening should be provided to maintain privacy for abutters.

Table 7 presents a summary of the various alternatives and costs.

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### 2.8 Segment 8-Edgartown-Vineyard Haven Road SUP to State Forest SUP

The State Forest provides a series of unpaved bike paths, however there is no link to these paths from the County Road SUP or the Edgartown-Vineyard Haven Road SUP. This segment explores the potential to provide a link between the network of paths in the northeast quadrant of the State Forest and the Edgartown-Vineyard Haven Road SUP. Alternative 8A (red) on Figure 24 proposes to utilize the Beth’s Way ROW to provide access to the forest. Beth’s Way is currently a dirt road providing access to 4 parcels and is currently being used by cyclists and pedestrians to access the State Forest. There is an existing grade difference of approximately 6 feet between the existing SUP on Edgartown-Vineyard Haven Road and Beth’s Way. Based on the GIS mapping it appears that the ROW of Beth’s Way is approximately 40 feet. It would be most desirable to provide the SUP on the easterly side of the roadway layout to avoid conflicts with the abutting properties; however, this may require shifting the existing dirt road slightly to the west. A more detailed survey would be required to determine exactly where the current dirt road is aligned within the ROW and if vertical grading were feasible to reduce the grade differential between the two potential SUPs.

Because this would be providing a link to the unpaved network of paths within the State Forest, consideration of a similar unpaved, or stone dust path should be considered in this area. In addition, with the low vehicular volumes along Beth’s Way it providing an 8 foot SUP would seem appropriate.

Figure 24 also illustrates Alternative 8B (yellow) which illustrates an option to provide access from the Edgartown-Vineyard Haven Road SUP at the intersection of the County Road SUP. This access would largely be through undeveloped land and cross a greenbelt buffer strip and one additional property to access the forest. Alternative 8C (blue) would utilize the greenbelt buffer
<table>
<thead>
<tr>
<th>Alternative</th>
<th>Start</th>
<th>End</th>
<th>Level</th>
<th>Length</th>
<th>Cost per ft</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alt 7A</td>
<td>Edgartown-Vineyard Haven Rd (via Ben Tom’s Rd &amp; Shady Oak Ln)</td>
<td>West Tisbury Rd</td>
<td>Path Only</td>
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<td>$175.00</td>
<td>$875,000.00</td>
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<tr>
<td>Alt 7B</td>
<td>Edgartown-Vineyard Haven Rd (via Jemegan Pond Rd &amp; Clay Pit Rd)</td>
<td>West Tisbury Rd</td>
<td>Path Only</td>
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<td>$175.00</td>
<td>$761,250.00</td>
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<tr>
<td>Alt 7C</td>
<td>Edgartown-Vineyard Haven Rd (Jemegan Pond Rd &amp; Pennywise Path)</td>
<td>West Tisbury Rd</td>
<td>Path Only</td>
<td>4,950</td>
<td>$175.00</td>
<td>$866,250.00</td>
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</tbody>
</table>

*Construction Cost - Does not include any land acquisitions.*
to access the forest rather than requiring additional ROW or easements from the smaller parcel abutting the State Forest. Alternatives 8B and 8C would provide a more direct route into the State Forest, particularly from the County Road SUP. An additional advantage of these alternatives is that any potential grade differential between Edgartown-Vineyard Haven Road and the State Forest could be addressed as part of the construction of a new SUP.

2.8.1 Segment 8 Summary

The opportunity to provide a link between the Edgartown-Vineyard Haven Road SUP into the northeast quadrant of the State Park would provide a valuable link for the islands SUP network. While access to the State Forest bike paths is currently provided along Barnes Road, this link would provide a more direct and more convenient access directly from the Edgartown-Vineyard Haven Road SUP and potentially the County Road SUP. If Alternative 8C were feasible, consideration of providing a bike rest area at the intersection of the County Road, Edgartown-Vineyard Haven Road and newly created State Forest Access SUPs would further enhance the objectives of this study. Table 8 presents a summary of the various alternatives and costs.
### TABLE 8
Segment 8 - Edgartown/Vineyard Haven Road SUP to State Forest SUP

<table>
<thead>
<tr>
<th>Alternative</th>
<th>Start</th>
<th>End</th>
<th>Construction</th>
<th>Length</th>
<th>Cost per ft</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alt 8A</td>
<td>Edgartown-Vineyard Haven Rd (via Beth's Way)</td>
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<td>$175.00</td>
<td>$161,000.00</td>
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</table>

1Construction Cost - Does not include any land acquisitions.
3.0 RESOURCE AREAS

As part of the Pre-Feasibility Study, a preliminary review of Department of Environmental Protection (DEP) Resource Mapping was conducted to determine potential environmental constraints that should be considered for the various alignments proposed. Table 9 provides a summary of the resources that could potentially be impacted by construction of the eight (8) segments examined.

TABLE 9
POTENTIAL RESOURCE CONSTRAINTS

<table>
<thead>
<tr>
<th>SUP Segment</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
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</thead>
<tbody>
<tr>
<td>Sole Source Aquifer</td>
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<td>x</td>
<td>x</td>
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<td>x</td>
</tr>
<tr>
<td>High Yield Aquifer</td>
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<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
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<td>NHESP Estimated Habitat of Rare</td>
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<td></td>
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<td>x</td>
<td>x</td>
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<tr>
<td>FEMA 100 Year Flood Plain</td>
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<td>x</td>
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<td>x</td>
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<tr>
<td>Protected Open Space</td>
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<td></td>
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<td>x</td>
<td>x</td>
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</tr>
<tr>
<td>Saltwater Wetlands</td>
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<td>x</td>
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<tr>
<td>High Yield Non Potential Drinking Water Resource Area</td>
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<tr>
<td>Zone IIs</td>
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<td>x</td>
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<tr>
<td>Abuts a Solid Waste Landfill Site</td>
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<tr>
<td>Certified Vernal Pools 2003 NHESP</td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<td>x</td>
</tr>
</tbody>
</table>

As part of a more comprehensive planning/design effort, coordination with the appropriate agencies is required to ensure that the design and construction of future SUPs protect these valuable resource areas.
4.0 CONCLUSIONS AND SUMMARY

This study was intended to provide an initial feasibility and evaluation of various alternative alignments for potential SUPs to connect missing links in the Islands Bike Network. The study focused primarily on providing dedicated SUPs separated from roadways. Shared roadways and/or bike lanes were only examined in areas where ROW constraints or other critical issues made providing dedicated SUPs less than desirable.

Limited roadway construction plans or official ROW plans were available. Therefore, ROW was largely estimated based on available “land parcels” and “property lines” available from the GIS mapping provided by the MVC. In order to accurately depict the necessary takings or impacts to adjacent parcels, further research including detailed field survey would be required.

The review of the paths impacts and costs are preliminary in nature and based on the available GIS mapping and imagery. While it appears that the ROW along many roadways is sufficient to accommodate an SUP with minimal impacts to adjacent parcels, detailed survey or construction plans are necessary to accurately locate the existing roadways within the ROW. In addition, structures adjacent to the roadway, particularly utility poles, fire hydrants, roadway signs, etc. would have to be located through a more detailed field survey to ensure sufficient ROW is available to locate these features with the construction of a new SUP adjacent to a road.

It is likely that in order to provide both the SUP and roadway surface within the ROW, the alignment of the roadway surfaces may have to be shifted, resulting in a significant construction cost. Once this positioning of the existing roadway surface is established within the ROW, more accurate evaluations can be conducted to determine if it is more cost effective to reconstruct/realign the roadway or to acquire additional right of way to provide the SUP adjacent to the existing roadway without requiring reconstruction of the roadway surface.

The following are recommended actions to further progress the development of these vital SUP links:

- Prioritize and rank the importance of the Segments. The ranking should be evaluated based on available ROW, safety, costs and review of the constraints in each segment.

- Develop conceptual level plans based on more detailed roadway and ROW plans for highest ranked Segment(s). This may require field survey to definitively identify the available ROW as well as the existing edge of roadway, sidewalk location, critical utilities, etc.

- Consider obtaining Low Altitude Aerial Mapping of the entire island to provide base mapping for the development of concepts and design level drawings.
If State or Federal funding is desired for construction of the SUPs, the projects should be discussed with MassHighway and Project Need Forms (PNFs) and Project Initiation Forms (PIFs) should be developed.
APPENDICIES

- New York Avenue Conceptual Alignment Plans
- Oak Bluffs Avenue/Lake Avenue Design Plans