Responses to Questions from Committee to FOS (Jim Malkin Letter – 11/5/2015)

Explanation for access route change

(‘Please provide an explanation for the access route change from the backside of the proposed dune ridge to the edge of the pond as provided in your Oct 24 letter.’)

The reasons for making this change are as follows (and, additional data on this change were provided in the last communication provided to the Committee, dated October 24th):

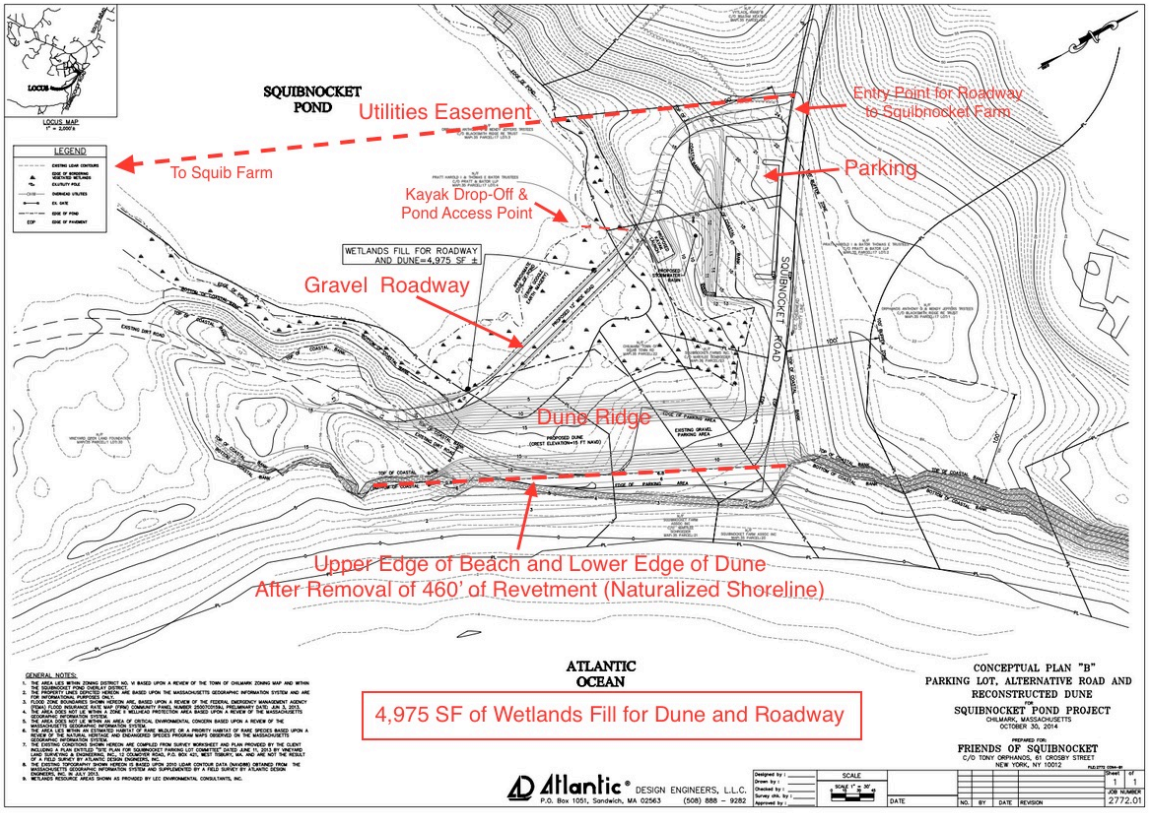
Improved maintainability: After several meetings with different groups, our engineering team decided that the roadway on the backside of the dune ridge could be improved upon. Moving the road back toward the pond provides an independent route from the dune, which is a better for minimizing the effects of overwash on the roadway and for handling the effects of erosion.

The illustration below shows the oblique angle of the road to the shoreline (as opposed to the roadway running parallel to the shoreline behind the dune). This is a more stable roadway because there will be many more years of erosion-free use.

Note the wetlands fill has been increased to 4,975 SF but remains below the allowable 5000 SF for a 'limited project'. The trade-off is better security and maintainability. The height of the dune has been lowered by about a foot and a half, to 15'. This will reduce the quantity of material required for first build and it will increase the supply of sediment to the backside of the dune as a result of over-wash, which is both natural and healthy and required for dune & road migration.

Impact on parking & public safety: The goal is for pedestrians to have a clear access to the beach on a road or a path that does not require crossing the road to Squibnocket Farm. With the new route, the traffic to Squibnocket Farm turns off above the parking lot and is routed behind it, making the path to the beach far safer. The best public safety solution is to run the road behind the proposed parking lot, closer to the pond.

Kayak/canoe drop-off and pond access: The last reason for moving the roadway is to provide better access to the pond via convenient kayak/canoe drop-off and launch point. With this solution, a vehicle can access a drop-off area that is next to the roadway and close to the pond.



Expanded Beach for Swimming and Recreation

Q: 'Please help us understand how your dune ridge proposal address the Committee's charge to provide an expanded beach for swimming and recreation.'

One of our goals has been to restore the swimming beach at Squibnocket in its original location. This 460' length of beach from the east corner of the parking lot revetment to the west end of Money Hill is an area that has been one of the most popular swimming and recreation areas in the Town and it is our understanding that the Beach Committee shares this view. We support removing all of the revetments, which have damaged the beach through scouring and restricting the natural supply of sand. The managed retreat design allows for the removal of the revetments and for the reconstruction of the beach above the current high water mark. After the revetments are removed and grading of the edge of the current parking lot is completed, it is projected that there will be an additional 50' width of beach at high tide, where none exists today. The removal of the revetments allows for the re-establishment of the long shore current which runs west to east and which will supply sand to the beach. The dune itself will provide nourishment to the beach, as it erodes, as will the existing coastal banks. (It should be noted that neither Squibnocket Farm nor the Selectmen have provided any commitments or plans as yet for the removal of the revetments.)

While restoring the beach is important to the recreational value of the area, the natural beauty of the beach, shoreline, dunes and coastal banks contributes immensely to the quality of the overall experience at Squibnocket Beach. At the core of this strategy is restoration of the beach to its more natural state by removing existing structures *and* by avoiding harmful development of new shoreline structures. Building a dune and roadway avoids the construction of an elevated causeway on a prominent location on the beach. This concrete and steel structure, at 19' wide and 19' elevation (13'-14' above grade) with its concrete abutments will become the dominant feature of the beach. For many, this will degrade the recreational value and the quality of Squibnocket beach, a large part of which is the enjoyment of the natural, coastal environment. As erosion moves the shoreline closer to the elevated causeway, its actual height above grade increases. While the elevated causeway will be the dominant feature of the landscape as soon as it is constructed, it will become more pronounced over time.

Drop-Off/Pick-Up Area, Handicapped Access, and Convenient Walkway

Q: 'There is a need for a drop-off/pick-up area close to the beach and desirable to provide several handicapped parking spaces near the beach as well as a convenient walkway between the parking and the beach. Please provide the Committee with information showing how the dune ridge proposal would address these issues.'

This can provide a convenient and 'close' drop-off location for people going to the beach. Measurements have been taken of two other beach drop-off points for comparison purposes. The measurements are from the closest drop-off point in the parking lot for each beach to the upper edge of each beach:

Beach	Distance to Beach*	Note:
Squibnocket	180'	From proposed handicapped spaces
Lucy Vincent	400'	From edge of path (bus drop off)
Philbin	540'	From edge of path

* Measurements are from the end of the parking lot that is closest to the beach. 'Distance to beach' is a measurement of the walking distance to the edge of the beach. Actual distance could be further if drop-off is in a different location.

The drop-off area could be at the exit of the parking lot at the south corner where cars or shuttle bus could drop off people 180' from the beach. This approach works for a turnaround for a shuttle bus by allowing for entry to the parking lot at the north-end with exit at the south-end.

Handicapped parking at Squibnocket could be provided at designated spaces at the lower end of the parking lot, which means that handicapped people could park 180' from the beach. This is significantly better handicapped access to the beach than is available at either Lucy Vincent or Philbin.

As you recall, the Selectmen's original plan included a drop-off and turnaround at the bottom of Squibnocket Road. Based on analysis from the Town's consultants, along with their recommendation to build a new revetment to protect the turnaround, that plan was scrapped. The plan is to allow

turnaround via the parking lot is superior from a feasibility perspective, ease of use, and convenience to those using the bus.

As far as the grade to the beach for handicapped is concerned, the area at the southern end of the parking lot could be graded at 15' all the way to the top of the dune (both are at 15'), if a grade of 0 degrees from the handicapped parking spaces to the top of the dune is required. Then, from the crest of the dune, the total change in elevation to the edge of the beach is 7'. So, you have 40' horizontal distance to decline by 7'. Our consultants feel that the proper slope can be engineered on the front of the dune.

Access to Squibnocket Beach will exceed the convenience available at Philbin or Lucy Vincent or most other beaches, for that matter. The point of access to the beach will be located at the base of Squibnocket Road in an area that's protected by the coastal bank (diagram is attached). And the pathway itself would be via a very common boardwalk design and is curved to protect the dune. The proposed boardwalk can be quickly rolled-up before major storms and will protect the dune from erosion while offering safe and comfortable footing to beach goers. (See attached brochure).

The distance from the parking lot to the edge of the beach (dotted red line) is 180' and the various grades are indicated.