

# Managing the Holy Island Causeway

A personal view by J Michael Taylor MBE

A metalled road from the mainland to Holy Island was only constructed in the 1950s. Continuously covered and uncovered by high tides, it needs a special regime of maintenance.

Michael describes his memories of watching the construction take place as a boy then later managing its maintenance during his working life.



In 1953 I enjoyed a holiday at Seahouses with my parents. A day trip to Holy Island, Lindisfarne was certainly a highlight as I recall the journey vividly. My father parked our car in the small car park on the sea shore and we headed for one, of what appeared to a young boy, a vast fleet of rusty black cars which acted as Island taxis.

Between us and the island in the distance appeared to be a forest of poles forming random patterns across the sandbanks stretching out towards the village on Lindisfarne. A fee was duly negotiated and we set off across the sand following one of the routes marked out by the tall poles.

As we progressed we passed close to cranes, bulldozers and men working on the sand. My father told me that they were building a road across the sand to the island. The days of the tourist taxis industry to the island were numbered. Perhaps just as well, there was more rust inside the taxis than outside and you certainly had to watch your feet as the water rose into the car as the journey progressed.

Some 40 years later I was once again travelling to the island. This time it was outside the tourist season and I was the Highway Authority representative going to meet a local Councillor to discuss a maintenance issue. It was a dark, atmospheric February day and as I drove towards the harbour the hair on the back of my neck stood on end as the familiar sight of Lindisfarne, Bamburgh and Dunstanburgh Castle appeared out of the heavy sea and spray. I remember thinking how privileged I was to witness such a sight as part of my daily working life.



The causeway was opened in 1954 much to the relief of the workforce who would have worked under difficult conditions, shift patterns to suit the tides and a cold winter wind un-moderated all the way from Norway. Nevertheless, the tide still renders the road impassable for two hours before high tide and three hours after, when Lindisfarne is again restored to its island status.

The causeway provides an all-dry route onto the island for about seven hours between each high tide. At high tide the road is covered by between 4ft (1.2m) and 6ft (1.8m) of sea water and even more at exceptional tides or severe weather.

The mile and a half long road was laid about 9 inches (225mm) above the sand and, just under half a mile from the mainland, the road crosses the River Low in a low [150ft (46m) long] 10 span bridge which is about 4ft 6in (1.35m) above road level. The bridge approaches are such that most people do not realise they have crossed it for the existence of the wooden pedestrian refuge hut accessed by about 20 steps. At the time of construction the refuge box was described by the workforce as a “chicken coop”.

Although the causeway is generally 18ft (5.5m) wide, the bridge was built to a single carriageway width (10ft) to limit the possibility of debris damage caused during flood conditions on the River Low.

The road was extended in 1965 to ensure that travel across the sands on the island side was on a paved surface. This ensured the three mile journey from the mainland sea shore to Holy Island village is on a metalled road.

The highway has had a profound effect on the village which now receives 500,000 visitors annually, in 70,000 cars and hundreds of coaches. All in all a unique and challenging task for the highways maintenance and management teams.



The choice of limiting the road height above sand level to 9 inches (225mm) has proved very foresighted. On occasions when resurfacing schemes have raised the road above that level, a winter storm restores the status quo. The sea rolls the additional road surface up just like a carpet and deposits it to the carriageway edge. In recent years edge restraints to the carriageway have formed part of resurfacing schemes.

The most effective method of surface maintenance appears to be a regular patching and surfacing dressing regime. Needless to say programming of such works, indeed all works on the causeway, is critical with tide and weather playing an important part.

But effective draining is the number one priority for the efficient operation of the road. The fact that the road surface is generally above adjacent land does help but this natural drainage is frequently compromised by seaweed, sand and other sea born debris following high tide. Indeed removal of sand is a continual task which cannot be removed from the island due to environmental reasons.

Sections of the road where it creeps up the island sea shore are separated from the sea by very low grass covered sand mounds. As water from receding tides cannot run off the road here, highway drainage is achieved through channels cut from the carriageway to the beach. Longer ditches alongside the road have been tried to improve run off as the tide recedes but with limited success, becoming blocked by sea action.

A further and unusual highway maintenance problem can occur following winter storms or very high spring tide. Large volumes of sea weed could block the carriageway particularly near the point where the island road leaves the sea shore to enter the village. Removal of the debris frequently could be more likened to a snow clearing operation rather than a street sweeping exercise. Clearing ice and snow from the causeway is not normally needed, but during extremely cold periods areas of the sea have frozen.

The ever increasing number of visitors to the island has necessitated the use of traffic management measures within the historic village. Given the sensitive nature of the Island, parking and waiting restrictions are marked with half normal width, primrose coloured lines, rather than normal width yellow lines.

The highway engineer has brought significant changes via the causeway to this historic island but to the south of it, a series of stakes still marks the old route across to the island called the 'Pilgrims Way' which was used in ancient times by visitors to the great Christian centre of Lindisfarne. Again this could be crossed only at low tide, a situation perfectly described by Sir Walter Scott:

*“For with the flow and ebb, its style  
Varies from continent to isle;  
Dry shood o'er sands, twice every day,  
The pilgrims to the shrine find way;  
Twice every day the waves efface  
Of staves and sandelled feet the trace.”*

An increasing problem has been the number of people disregarding the published “safe crossing times”. As the number and size of warning signs increased so has call outs to life boat and helicopter in order to rescue motorists stranded in the sea on an incoming time.

Recent trials were conducted to reduce the problem of stranded motorists. A mobile electronic message board was set up on each approach to the causeway, displaying the safe crossing times for that day or warnings to check the tides. It is anticipated that permanent signs will be erected.

Websites and mobile apps have also been developed to keep drivers informed of safe crossing times.

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*All opinions in this article are the author’s own.*

