SAVE TEIGNMOUTH BEACHES

I say beaches because one cannot rule out the chance that hydraulic predictions may not be 100% accurate. So there must be a chance that the main beach could be subject to change.

The current proposals affect all of the beach between the end on Parsons tunnel to where the railway goes under the latticed bridge at Eastcliff.

This length of railway is affected by cliff stability rather than the problem at Dawlish where water comes over the trains. So far the instabilities appear to have been local slips, due to water, rather than large rotational movements.

The present proposal has the benefit that it could be done with little disruption to the railway and the services it provides and also covers the original wall so it would no longer be a maintenance issue. Its significant problem is that a large length of beach will be permanently lost.

Other solutions which keep to the existing rail alignment have the problem of perhaps significant disruption to rail services. This would be temporary but could be of many months or even a couple of years. But it has the big advantage that there would be no permanent loss of amenity.

What is needed here is a reduction in the slope of the steep cliff and the present proposal achieves this by moving the rail line sea wards and then regrading the cliff by filling again it.

How else could this be achieved.

I attended a consultation presentation where I was advised this could be achieved by buying properties at the top of the cliff. This would provide addition room to regrade the cliff but would almost certainly require one track to be closed for safe working. I expect this solution would be cheaper that the current proposal. Land would almost certainly be purchased by Compulsory Purchase. Whether it would be acceptable to the home owners is another issue.

So the trade off here is no disruption to the railway and permanent loss of beach or Temporary railway disruption but no permanent loss of amenity.

This is a choice that so far has come down on the side of the Rail Authorities preferences.

If some disruption of the railway was allowed this would open the discussion for other solutions.

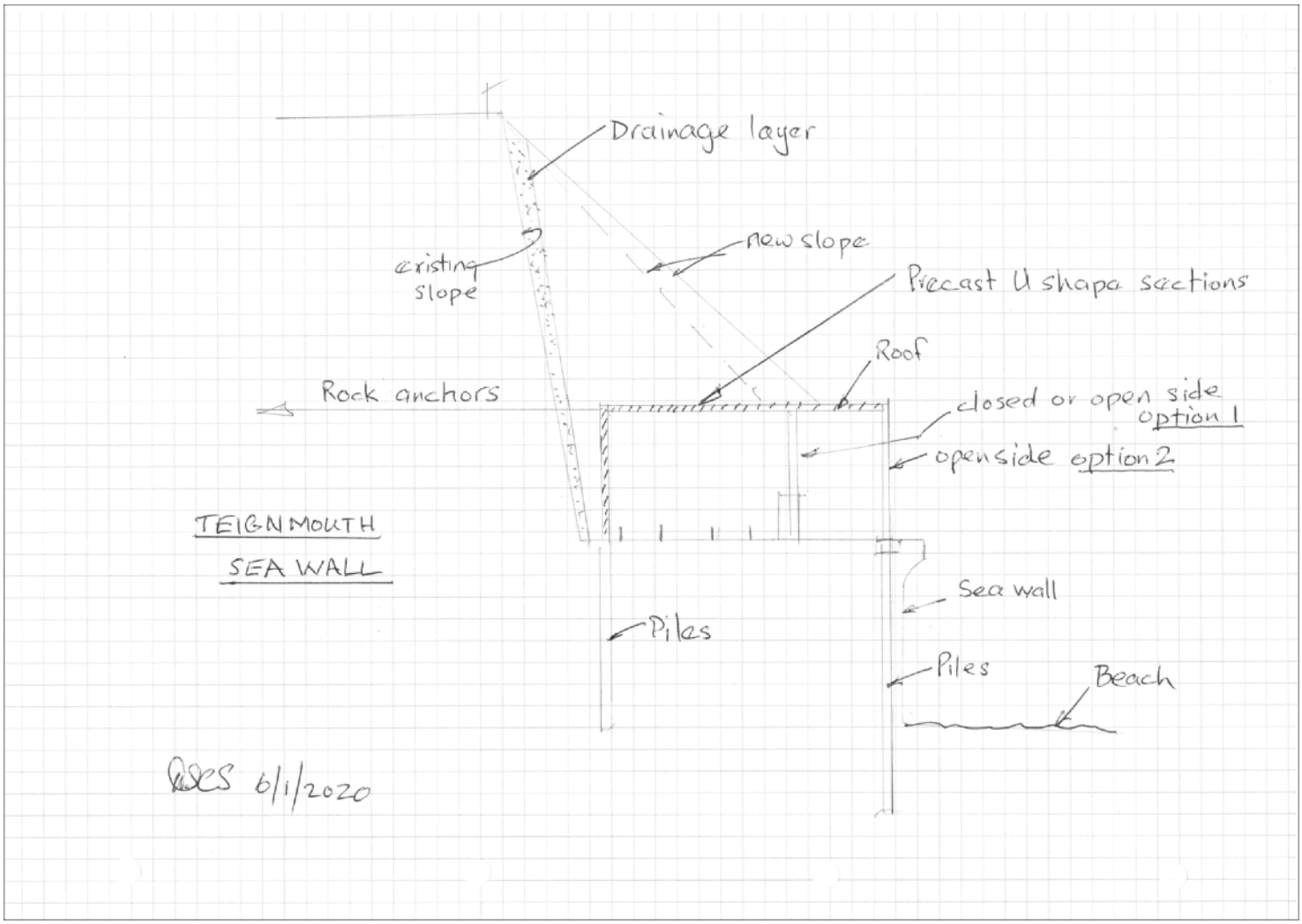
I would suggest that a set of points be installed at locations at each end of length affected by the work. It would be for the rail authority to determine the best positions for this. I would suggest near Teigmouth station for one position, as many trains already stop here. The other position could be at a point somewhere between the far end of Parsons tunnel and Dawlish. This would then give single line railway through the works area, with the ability to close either of the tracks depending on the works in progress. ie. the same as Traffic light at road works. Road users have to accept this so why should not railways.

I suggest below a possible solution for discussion. SKETCH ENCLOSED

Piling could take place each side of the railway, OR the side nearest the cliff and in front of the sea wall, to provide support for a structure over the railway. The structure would be precast, in factory conditions so not affected by weather. This would be tied back into the cliff by rock anchors and would allow filling over the structure to reduce the slope of

the cliff. Drainage should be provided on the face of the existing slope on the interface between new fill and the existing surface.

The new batter may have to be an engineered slope rather than a natural batter but the height of the structures roof also affects the slope possibilities.



About me

D Sharland MICE C. Eng. B.Sc(Hon)

Retired after 40 plus years with Devon County Council.

Pricipal Engineer, Team Leader.

30 years designing highway structures and Bridges.

10 years on site supervision of construction.

Most notable structure was the design of Millers Crossing in Exeter.

In my twenties assisted in design of Teign Estuary Viaduct and the was on site supervising its construction.

Design of other highway bridges and structures too many to mention.

Head of supervision of all 27 structures on A30 section from Whiddon Down to Okehampton

Experience of:

- Reinforced concrete.

- Prestressed concrete
- Post tensioned concrete.
- Steel structures.
- Piling
- Rock anchoring.
- Reinforced earth
- Many schemes for modifying and strengthening bridges
- Strengthening of arch bridges
- Design of many retaining walls and sheet pile structures.
- Checking of contractors temporary works.