

The Roadshow Continues

The next event the scout attended was a drop-in session at Dawlish Methodist Church on 30th October, 2018. The show moved on to Teignmouth and Holcombe in November.

The purpose of the sessions was to announce the establishment of the South West Rail Resilience Programme, with its mission statement, "Keeping the South West rail healthy," and to acquaint the public with what had been learned so far from the detailed studies conducted by world-leading experts in coastal, tunnel, cliff and railway engineering, who had all helped to spend the £15-million granted by the Department for Transport.

South West Rail Resilience Programme			
Phase	Section	Years	£million
1	King's Walk, Dawlish	2019-2020	30
2	Coastguard Breakwater to Dawlish Water (Colonnade Viaduct)	2020-2023	50
3	Parson's Tunnel Rockfall Shelter	2021-2023	48
4	Kennaway Tunnel to Parson's Tunnel (excl.) cliff stabilization	2023-2024	32
5	Parson's Tunnel to Teignmouth cliff stabilization	2024-	

After the major work of repairing the breach and raising the walkway, it was announced that the next phase would begin gently in November with pointing of Langstone Rock, Coastguard's Point, Colonnade (also, or properly, called Station Breakwater) and Boat Cove breakwaters. This would once have been routine maintenance done by the railway but in 2018 it had to be approved by the Department.

Engineers thought it necessary to state the purpose of the breakwaters, which any uneducated member of the sea wall gang would once have understood. The fingers of masonry reduce wave energy and impact on the shoreline, and they help to retain beach material.

The world's top experts, the public was told, would continue the geotechnical and marine studies to ensure that the challenging and complex mix of terrain and engineering involved were fully assessed. Analysis of this work would determine a set of options and recommendations which would be put to government and the local community by the summer of 2019.

Phase One of the scheme, designed to defend the 394 yards of line between Colonnade Viaduct and Boat Cove was considered to have the highest priority and, as it could be undertaken separately, it became the first part of the Resilience Programme to be commenced.

An application was submitted to Teignbridge District Council in February, 2019, for Prior Approval of Permitted Development (19/00237/NPA). Railways authorised by Acts of Parliament or Light Railway Orders or, more recently, Transport and Works Act Orders, have powers bestowed on them to carry out work which is operationally necessary, including the erection, construction, alteration or extension of any building and the formation of the line.

Network Rail could depend on the powers contained in the South Devon Railway Act, 1844, to make and maintain a line of railway, but the proposal to build a massive new sea wall would have to go before the Local Planning Authority, whose purpose effectively was limited to considering the appearance of the structure to ensure that it would not injure the amenities of the neighbourhood.

The new wall would be up to eight feet taller than the existing King's Walk, nearly 25 ft. above mean sea level, and would incorporate a nearly four-foot high pre-cast recurve to reduce by 90% overtopping onto the railway and promenade.

Even were an offshore reef or breakwater to be built, nothing less than this increased height of wall would be sufficient to protect the railway from rising sea levels and increased storm frequency over the next 100 years. This was used to dismiss the suggestion by local people that the wave return curve could be at promenade level, with railings above. The experts paid no heed to the prediction that much water would come over the wall as sea spray, driven by the wind.

The burgers and ordinary folk of Dawlish had opportunities to see what the monstrous works entailed, including a mock-up which showed how King's Walk would look when all was done. The scheme was thrust upon them quite suddenly, though, and there was little effective consultation. Almost everyone accepted, if only resignedly, the need for improved defences but many wondered why what was planned had to be so grotesque



Network Rail, for the first time, opened a community information hub, which provided regular updates on how work to deliver the new Dawlish sea wall was progressing.

Application for prior approval of siting and appearance under Part 18 Class A of the Town and Country Planning (General Permitted Development Order) 2015 of a new taller sea wall and wider promenade between Boat Cove and the Breakwater as part of the south west rail resilience programme.

and why it had to be implemented so hurriedly, given its 120-year design life. Although the railway defines the coastline at Dawlish, a huge increase in the wall's height to defend the line was much more than the town needed for its defence.

The application was put before the Teignbridge District Council planning committee on 16th April and many Dawlish residents went along to witness the proceedings or to have their say. Exchanges at the meeting became rather heated at one point, with accusations of political interference being voiced, and the Chairman was forced briefly to adjourn.

Sixty-two public representations had been received, 58 of which were objections. It was stated that a 25-foot high wall would negatively impact the appearance of Dawlish, the Conservation Area and the scenic coastline, and that the charm of Dawlish would be lost to an overpowering wall of concrete.

It was suggested that options for the entire length of the line from Dawlish Warren to Teignmouth should be planned comprehensively and that a projected increase in sea level of less than three feet did not justify a wall up to eight feet higher than the existing one.

A 60-signature petition had also been sent. Among the matters it raised were that the options had not been put to the townspeople as promised by Network Rail; that the higher wall would destroy the town, seriously affect the tourist industry and ruin the outlook for residents and businesses in Marine Parade. It was pointed out that, since the breach in 2014, the line had only been closed for three days due to wash out and damage.

Councillor Martin Wrigley, a trained engineer and representing the Dawlish Central & North East ward, accepted that a higher wall was needed but questioned the specific design that had been chosen. He said that the proposed wall would not prevent overtopping, adding: "King's Walk at Marine Parade is iconic, and the concrete brutalist design would be a significant blow to the town and our economy."

As this was not a planning application (permission was granted under G.P.D.O.), Cllr. Wrigley's motion, calling for Network Rail to review the design and height of the wall, due to concerns about amenity, drainage, water safety, flood conditions and debris, was futile. After loud applause in support of it from the public gallery, it was defeated, ten votes against six. The vote to approve the works was unanimous.

<https://www.teignrail.co.uk/pdfs/Devonlive-16.4.19.pdf>



<https://www.youtube.com/watch?v=XIilkOiGBo>



A late nineteenth century view of the broad gauge single line and the 1874 wall, with the seaward face almost covered by the beach. The atmospheric pumphouse chimney can be seen beyond the station.

The new wall was up to 18 ft. further out than the old and had an immediate and dramatic effect on the beach. Up to this date there had been a high sand cover here, and the tideline had been parallel to the railway. But the new wall increased the wave rebound action and quickly scoured away the sand cover of the west end of Marine Parade, whilst piling up sand against the station breakwater.

Eastwards from Marine Parade, the line was to rise gradually until, at a point under the Sea Grove grounds, it was high enough for a 'Colonnade' having at least 6 ft. 6 in. headroom, where boats could be hauled under the line.

Exeter - Newton Abbot: A Railway History, Platform 5, Peter Kay, 1993

A Coastal Morphology Study has been completed to inform the design which concluded that the bedrock on the seaward face of the sea wall is assumed to be eroding at the rate of 0.02 [$>3/4$ in.] per year. The study has concluded that beach nourishment may be required beyond Marine Parade in future, although this will be at least 10 years away and is not part of this project.

Network Rail, design of new sea wall, King's Walk, 2019



The standard gauge double line and the new King's Walk, with the beach very much depleted.



In July, 2019, work had just begun on the £80-million project which would lead to the railway and town being protected by a huge concrete wall. Remarkably, the refreshment kiosk, which once stood where the *orangemen* are gathered, always survived the battering it took from the sea. The view at right is from 1974.



The King's Walk high level footpath was being built when King Edward VII acceded to the throne. The wall, which made possible the doubling of the line, was the third to be built here. The original had been replaced in 1874. The scout admired it for the last time before it came under attack by the philistines.

Work on **Phase One** got underway on 1st June, 2019, with construction, following years of detailed studies by world leading marine, coastal and railway engineering experts, expected to last nine months. The first of 17 Residents' Updates proclaimed that: "The new higher sea wall, with a wave return, will help protect the railway and Dawlish from rising sea levels and extreme weather for generations to come."

On 11th June, the first of ten consultation events around the area took place in Dawlish in connection with the authority's ridiculous plans for **Phase Five**, the line between Parson's Tunnel and Teignmouth. The Teign Valley scout went along to the roadshow held at Avenue Church in Newton Abbot on 29th June.

When the scout saw the large plan for the first time, the one route he had imagined had been joined by three more, successively less intrusive. The original deviation, emerging from the cliff beside Parson's Tunnel was shown with three routes deviating roughly at the same point west of Smuggler's Cove. "Route 4" was the one

that would be worked up in detail for later consultation events in connection with the application for a Transport & Works Act Order, there being no powers in the original S.D.R. Act for this much of a deviation.



The scout discussed the proposals with the project engineer, who said that he looked forward to starting work. The scout predicted that this would go the way of an earlier scheme for an avoiding line.

Work was suspended at Dawlish on 14th July for the eight weeks of the high tourist season.



Phase One continues in October, 2019: As fast as work was done, the tide brought sand to cover it, so, for many months, it appeared that little had been achieved. The bulge in the wall, which would be a feature of the new one, was where the subway had been. It had always filled with sand during the winter and was often used as a urinal, but was not finally closed until 1952. The promenade had always been unfenced. It is thought that the one seen here was provided for Network Rail men to lean upon.

On 10th January, 2020, the front page of Dawlish Gazette carried news that "Foundation fears put sea wall works on hold." The article suggested that some of the foundation of the facing panels had been discovered to be inadequate before the Christmas break. It was not until April, well after the problem was overcome, that the Residents' Update reported:

"Despite challenges that the workforce faced in securing the vertical anchors that will hold the panels in place, a solution was quickly found. This was done by excavating a trench along the existing wall and replacing the highly voided and weak fill material with new concrete. This enabled the vertical dowels to be installed in new material rather than the weak existing material, ensuring that the new sea wall remains entirely secure."

Town and District Councillor, Martin Wrigley, took advantage of the news:

"Unfortunately, this is not unexpected. After five years of consultation we've ended up with a rushed design, forced upon us by national politics at the time. It's obvious that a three-element design would have been best: a reef out to sea, reinforcement of the beach and a smaller wall, which wouldn't cause the sinking."

The second round of public consultation in connection with the proposals for the line between Parson's Tunnel and Teignmouth commenced on 20th January. The roadshow made eleven calls this time. The scout rode from Exeter to the event at Holcombe Village Hall on 23rd January.

When he first heard about the fantastic plans to move the railway away from the cliffs in December, 2016, the scout had thought that opposition from local people would soon be tumultuous. Perhaps because the plans were not communicated well or widely enough, or because people did not consider the plans serious, or because people, in the British tradition, are slow to rouse, not a whimper was heard for some time.

But, by the autumn of 2019, the coastal community was stirring and a group, under a *Save the Beach* banner, had formed, some of whose members were at the village hall armed with leaflets.

The centrepiece of the roadshow was the 33-foot long 1:200 sectional model that Network Rail had commissioned, it was thought from a Bristol firm, at a cost of £70,000. The deviation modelled was the least of the four in the illustration above.



While mingling and listening, the scout heard local folk saying that the model was much like the two-dimensional plans in that it did not show accurately just how little of Holcombe's beach would be left if the deviation were to be built, and the true impact on Teignmouth's amenity was not revealed.

The amiable Richard Griffiths, Head of Communications (Julian Burnell (*Uncle Monty*) had moved on), foolishly approached the scout. He pointed to evidence of Network Rail's openness that opponents of the scheme had been allowed to be present in the lobby. Colin Field, the Town Planning Manager responsible for the "prior approval" applications to Teignbridge, was also good enough to engage.

The scout uses such rare contact as this, with an organization known for its lousy communications, to discuss wider issues as much as the specific subject and always puts the stock question: "When did you last travel by train?" He bemoaned the sluggishness of the G.R.I.P. (Governance for Railway Investment Projects) and was told that it was a great improvement on the previously disorganized and *ad hoc* arrangements which often mired projects. And he learnt that the railway had become such a safe place to work, Network Rail staff were now most at risk when on the road system, as of course they were a lot of the time.

There had to be some conversation with *Save the Beach* members in the lobby. They were given copies of "A Summary of the Case for Reopening the Inland Railway Route between Exeter and Newton Abbot," which the scout had brought with him. A few days before this event, the railway had written to the group and more wires were sent in February, in an effort to help members understand Network Rail's actions and to convince them of the importance of diversionary routes as part of a "clever solution."

"A Summary of the Case for Reopening the Inland Railway Route ... ": <https://www.teignrail.co.uk/pdfs/R2.pdf>

Correspondence with Save Holcombe Beach Association: <https://www.teignrail.co.uk/pdfs/MessaqetoSaveHolcombeBeach.pdf>

Computer generated "flythrough": <https://fast.wistia.net/embed/iframe/kcxxwqh1>

Network Rail leaflet: <https://www.teignrail.co.uk/pdfs/ProposalstoimprovethersilienceoftheSouthWestsrailway.pdf>



Holcombe residents absorb Network Rail's show in the village hall. Everyone seemed to be remarking on the excellence of the model, even if they did not approve of what was planned. It was made to try to satisfy those who had said that, good as the computer-generated imagery was, it still did not reveal to them how the finished works would look.



- We are Not Anti Rail
- We are Not against resilience
- We are against needless destruction of the Beach

savethebeach.co.uk



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Help us make Network Rail see sense. Their current design, shown below, will be an environmental disaster and is fundamentally flawed.



Find out more and how to help
Facebook: Save Holcombe Beach
Facebook: Save Teignmouth Beach
Website WWW.savethebeach.co.uk

Proof that local opposition to Network Rail's clumsy performance had mobilized came when Save Teignmouth Beach and Railway invited "as many people as possible to our human chain event at Teignmouth Beach," on 8th February. The idea was to use a line of people to show what the plans and model had failed to convey: the real extent of the revetments and rock armouring proposed.

There must have been a coalition with the Holcombe group for many joined the action from the other end of the beach. The *Mughook* group in fact became "Save Holcombe and Teignmouth Beaches and Railway."

The scout went along to capture the event as best he could and to point out the features, natural and manmade, while explaining what the track authority was intending to do. He spoke as the camera took movie footage from various vantage points.

DevonLive

Colleen Smith, Chief Reporter
8th February, 2020

Why I was proud of this very British protest to save the very best of Devon

Between 2,000 to 3,000 people showed Network Rail what they really think of the plans for the sea wall in Teignmouth.

It was a very British protest to save a very iconic part of the British Isles and the very best of Devon - the Brunel sea wall and the sandy red beach at Teignmouth.

Everybody got in a very British line and smiled and chatted politely as they formed a human chain along the beach from the Yacht Club to Sprey Point.

But when you asked them why they were there, these people were all well-informed and quietly angry.



The turnpike at the top of Smugglers' Lane, leading from the cove. The turning to Holcombe is opposite.

A Very British Protest

With a storm forecast for the following day, the scout rode from Exeter in pleasant weather to witness the campaign group, Save the Beach, organize a line of people along the course of the proposed new sea wall between Teignmouth and Sprey Point.

From Smugglers' Cove, he walked to Sprey Point, stopping to point out some of the features and to outline the works which are intended to make the railway less vulnerable.

While the newest trains swept past, the scout reflected on the times he had gone along the wall behind B.R. steam locos, diesel hydraulics and diesel electrics, and in DMUs, HSTs, the cab of a light Class 45 and a Class 60 hauling empty tanks from Heathfield.

One of the most memorable was a ride in an empty cross-country DMU from Laira, which used to leave Newton around 0530 non-stop to St. David's. Seeing the lights along the estuary through the deep windows, while slumped in a well-sprung seat, with the heating at full blast, was quite unlike today's experience.

And, in September, 2018, returning from Bristol, the scout detrained a wretched *Voyager* at St. David's to join an HST for what would be his last run along the wall standing at an open window in the dark.

<https://www.youtube.com/watch?v=q2QNrpmeeHE>

Spoken on the shoreline

"Well, I said to the Network Rail—or I said to a Network Rail—representative at the Langstone Cliff launch in 2016 ... I asked him whether he was expecting a backlash from local people and he shrugged his shoulders. And that for some time didn't appear to be materializing and I wondered where it had got to, whether the local people were asleep, but they've woken up, I think, to what is going to happen here and are mustering in strength in a very British way: very peaceful, very reasoned and very visual."



On his way back to Exeter, the scout viewed the completed foundations below King's Walk from the footbridge and Lea Mount.

The Application for Prior Approval (20/00933/NPA) of **Phase Two** of the programme, a new wall between Coastguard Breakwater and Colonnade Viaduct, was submitted on 8th June, 2020. Altogether, with a new stilling basin for Dawlish Water, this would cover 454 yards.

Dawlish Sea Wall, Section Two, was originally going to be part of a second tranche of coastal resilience works which would be funded in Network Rail's Control Period Seven, starting in 2024. It was decided to bring forward the project so that the benefits of Marine Parade resilience were fully optimised and the application stated: "If not delivered now we could find that whilst the new Marine Parade seawall has made that stretch of railway fully resilient the adjoining 400m of track and sea defences could still need to be closed due to overtopping of water from the sea."

Before the selection of a new, taller sea wall and promenade, other options were considered, including an offshore breakwater and beach nourishment.

The existing promenade was at a lower level than King's Walk had been and it was hoped by the designers that the new wall would have this feature. But the physical modelling showed that waves would overtop the new sea wall and so a high level walkway behind a vertical wall was chosen as being the only solution sufficiently resilient to withstand worsening conditions over its 100-year design life.

Two advantages of this choice would be that a new Down platform entrance would allow direct access to the sea front and that the station building could be dried out and brought back into use.

The choice of a vertical sea wall with a recurve on the top, rather than a concave one, was explained:

"A fully concave seawall as may have been designed in the mid-20th century works well where there is a limited tidal range over which the wall is subject to wave action. For example at Teignmouth where the wall height is at the back of the beach and is generally subject to significant wave action only when the tide is at its highest.

"Flat walls with recurves are most effective where tidal ranges are large and there is a significant variability in the combinations of water levels and waves ... "

Because the sand depths and bedrock levels were different, instead of digging a strip foundation and filling with concrete, as used in Phase One, the supporting structure for the new wall would be Circular Hollow Section piles, turned in rather than driven, a much quieter process.

The grotesqueness of what was planned and the harm caused to heritage assets would be offset by the wider public benefits being delivered. By this time, the new King's Walk had been seen returning the waves and so this was cited, and it was claimed that "the scheme will increase Dawlish's appeal to visitors." Another small gain would be the "removal of pigeon roosts."

It was not stated in the application that the four rooms in the Downside building had been:

General Waiting Room
First Class Ladies' Waiting Room
Second (or Third) Class Ladies' Waiting Room
Gent's Lavatory

By June, all of the 145 wall panels and many more than half of the wave recurve units had been installed at the new King's Walk. The beach and promenade were opened on 28th July, with fencing and lighting left to do.

The Teignbridge Planning Committee meeting at which the latest application would be agreed, was held on 18th August. Even though these applications were only a formality to keep government organizations occupied, the local authority was extremely diligent in carrying out the only effective duty it had: that of scrutinizing the appearance of the work.

Much that was familiar and characterful was to be lost. The "Arsenale" form of the station building's lower level and the lower portion of the Coastguard Bridge abutment were to be buried. The boathouse was to be demolished.

The report stated:

"The visual character of the area would be altered through the loss of the historic palette of materials such as the limestone sea wall and stone faced lower elevation of the station building which would be replaced with a modern concrete wall ... "

The Council's Conservation Officer assessed the impact of the proposed development as being substantial harm. To add interest and historical reference to an otherwise monotonous and unrelieved sea wall, he suggested that the wall panels should be limestone, not concrete, and that the lower part of the footbridge and stairs, with their quoined buttress, paired and key-stoned lancet windows, should be echoed in relief. Network Rail had been asked to consider this and two lesser options.

The impact was summarized:

"The new wall, brutalist in tone, monumental in aspect, with its outward recurve will resemble more an international border wall than the familiar frontier between sea and land that is the historic structure. The vernacular character of the present wall because of its use of local stone, its relationship with, and the physical geography of, the locale will be lost entirely; and the remarkable permeability that exists today between town and station, and station and sea will be a thing of the past."

The same Coastal Morphology Study submitted with the King's Walk application came this time with an additional warning. The advancement and greater height of the sea wall would marginally increase the amount of wave reflection and this had the potential to hasten the rate of toe scour. Slightly faster depletion of the beach might then occur, exposing the bedrock over a shorter period.

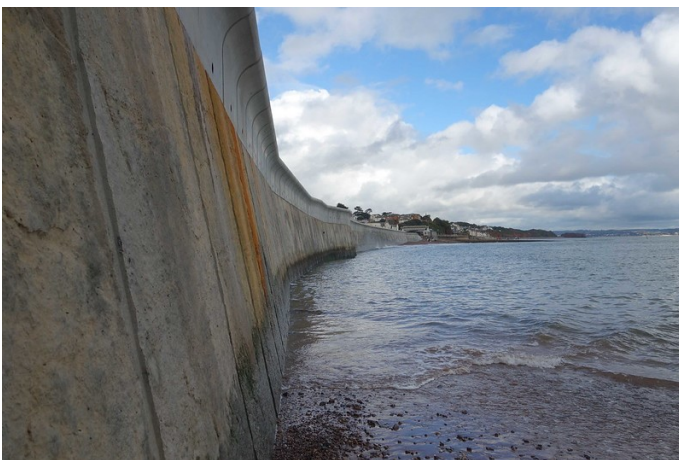
The application included a new £6-million footbridge with lift shafts, funded separately. As a structure connected with the operation of the railway, Teignbridge could only consider its appearance.

There were 13 letters of support, including three from M.P.s., and two objections.

Colin Field, calling for the plan to be approved, said: "There have been practically no objections to this and predominant support locally for the investment. I have never known a project of this scale have so few objections, and almost unheard of to have more letters of support than objections. This is a once in a lifetime opportunity to deliver improvements to the railway. It will deliver resilience, protect the station and the listed building from rising sea levels to give it 140 years more of life, and deliver a truly better public realm promenade accessible for all."

Given the rate of bedrock erosion predicted, no one questioned the life expectancy of the new wall and the motion to grant approval was passed by 15 to one, with two abstentions.

On 25th September, 2020, Rail Minister, Chris Heaton-Harris, opened the new King's Walk. The scout failed to capture on film any stages of the work after the strip foundation was laid, but photographed the finished work in October.



By October, a transformation had taken place. The first phase of the work that would eventually protect the railway and the town, and allow trains to pass in all conditions, was complete.



The station building and platform on the Downside have been made to look even more vulnerable. Everyone, not least "the world's top coastal engineers," must have been anxious to see how this bulwark would behave under storm conditions.



Generations of townsfolk and holidaymakers had watched trains pass above them and had been free to fall off the wall. Now people could look down on the trains and view the sea from behind a thick parapet.



If the sea level rises as predicted, the studies show that much of the 20½ miles between Exeter and Newton Abbot may be vulnerable to inundation. Defending at enormous cost this half-mile length to the point of impregnability may prove in time not to have been the best course.



A formal agreement made in 1844 between the S.D.R. and certain representatives of the Dawlish inhabitants regarding amenities provided that along Marine Parade the railway must not be more than one foot higher than the existing Terrace, in order to preserve sea views from the ground floor rooms of the houses.

This must have lapsed or not been binding, for deep ballasting had long ago lifted the tracks well above Marine Parade. Network Rail certainly did not feel that it had to honour the agreement when it came to building a wall that would obscure the sea views from ground floor windows.

The line falls at 1:90 from Dawlish Station towards Kennaway Tunnel, a requirement of an original

agreement, meant to preserve the amenity of the houses on Marine Parade. Undoubtedly it was for many years, but modern deep ballasting has raised it considerably. And now it is immaterial, as it is the wall that blocks the view.



Just as he had done below King's Walk in the summer of 2019, the scout took a last look at the 1875, Grade II listed station before the philistine horde set about it.

The fun of trying to dodge a drenching while walking along the low level path as the tide is coming in would soon be lost. The new walkway will be at the same height as the station platform and the understorey of the building will be enveloped in concrete.

The sealed doorway at the end of the building was once an exit from the Down platform.

The supports for the continuation of the Down platform at left are gas lamp standards.

The Teignbridge District Council Conservation Officer described the lower floor on the Downside as a type of dockyard military workshop building originating at the Arsenale in Venice.

In October, 2020, following the second round of events and dissemination, Network Rail published "Parsons Tunnel to Teignmouth Resilience Consultation Report (January – March 2020)", a necessary part of the process towards applying for a Transport and Works Act Order.

More than 2,840 members of the public attended the consultation events and 2,105 comments were received through the various channels available. The analysis showed that there was some support but still substantial dissatisfaction and opposition. The report stated:

"Forty-one percent of people agree/strongly agree with the proposals to make the railway more resilient. However, there has been an 8% increase in those who disagree/strongly disagree in 2020 (51%)."

“Seventy-three percent of people agree/strongly agree that the railway between Parson’s Tunnel and Teignmouth needs to be more resilient, increasing by 1% from the consultation in Summer 2019. Additionally, those that disagree/strongly disagree decreased from 19% in summer 2019 to 13% in 2020.”

“The volume of public feedback and the obvious strength of feeling from many correspondents and attendees at the 2020 drop-in events was quite unprecedented in the experience of most of the Network Rail team. It is clear that many correspondents spent in some cases a good deal of their spare time writing detailed emails expressing their passionate views. The 2020 consultation included two opportunities for customers to provide feedback for the Scheme. The first asked how the plans could be improved and the second asked for further comments on the proposals.”

<https://www.networkrail.co.uk/wp-content/uploads/2020/10/Public-responses-to-the-question-how-could-the-plans-be-improved.pdf>

<https://www.networkrail.co.uk/wp-content/uploads/2020/10/Public-responses-to-the-question-any-further-comments.pdf>

One respondent, who was broadly an objector, stated that whatever work was done “the old line through Tavistock should be reopened to provide an alternative route to Plymouth. In addition, the old Teign Valley line should be reopened. Although it is only a single track line ... [it] would allow at least some trains to continue to run between Exeter and Newton Abbot if the coastal line needs to be closed for any length of time ... ”

Of the 26 public bodies consulted, nine responded. Teignmouth Town Council stated:

“Councillors unanimously agreed to request that a review be immediately undertaken in conjunction with local stakeholders and councils to consider all engineering options to defend the railway, improve public safety and to reduce the negative impact on local communities, businesses and the environment.”

Devon County Council wanted a continuous cycle path as part of the scheme.

Teign Heritage (Teignmouth and Shaldon Museum) wrote:

“We ... believe that alternative proposals have not, to date, been investigated seriously enough that would enable the complete, or substantial preservation of the existing seawall.”

Among the museum’s many concerns were the loss of Hennet’s limekiln and the pillbox at Parson’s Tunnel. Teignbridge District Council naturally had much to say:

“The current consultation whilst a formal stage of the TWAO process comes before the publication of the majority of the technical information (including Environmental Assessment, coastal process modelling, construction methodologies, temporary structures and impacts, influences on adjacent beach sediment sources, bathing waters and local economics, final design and project resourcing), which will be required to be made available before the expected Public Inquiry in summer 2021.”

“The consultation materials do not include a simple map depicting the current alignment of the track and wall and the footprint of proposed development at an appropriate and measureable scale. This would typically be expected for any Planning Application ... ”

The Council was unhappy about the proposal for Smugglers’ Lane and stated that it would prefer a footbridge to be provided. Also, it had hoped that part of a Teignmouth to Dawlish cycle path would have been included in the plans:

“The outline design includes a pedestrian underpass beneath the railway from Smugglers Lane leading to a long high walled ramp up to seawall walkway level. This would create a series of highly unpleasant public realm spaces such as blind, dark subterranean, 90° corners which would raise safety perception issues, particularly at dusk in a relatively remote rural location.”

“This Council understands that contrary to earlier expectations (and depictions on the physical model) that it is not the intention to provide a cycle track across the site. This Council would wish to see the provision of a shared use path reinstated across the site.

“It is noted that for the northern section of the route there will be two access routes, one along the seawall and one along the revetment between cliffs and track, which can offer a circular route for pedestrians which is welcomed. However experience from the Exe Estuary trail (especially the eastern bank) shows that there can be conflict between users of shared trails, particularly at busy times and where fast cyclists interact with pedestrians with pushchairs/small children and/or dogs. The Council therefore recommends the preferred option would be to preclude cyclists from the seawall route and have a shared use (pedestrians and cyclists) for the landward track along the buttress. This would leave a safer space for pedestrians to promenade along the seawall to enjoy the coastal environment and views without the risk of interaction with fast moving cyclists.”

Devon Wildlife Trust questioned the scheme's resilience against climate change:

"The proposed works have a suggested life expectancy of 100 years based on UK Climate Projections 2018 (UKCP18). However, the maximum track level rise of 1.21m is only 6cm over the UKCP18 high emission scenario for London in 2100. With the additional suggested intensity of storms, this makes a 100-year life appear optimistic. Providing the new line survives for 100 years, given the current route is 180 years old, and with continuing sea level rise, this project would appear to be only a temporary fix for a very long-term problem, which will have significant impacts. Will further environmental impacts be considered appropriate in another 100 years?"

Dawlish Town Council, with its experience of Network Rail's heavy-handedness, wrote:

"Serious concerns have been raised by communities across the resort towns of Dawlish and Teignmouth that the Network Rail project programme is flawed, and that an iconic piece of historic railway infrastructure - one of the most admired and photogenic sections of railway anywhere in the world - is to be altered beyond recognition through poorly conceived planning. Network Rail's project team has come forward with designs that are both sub-optimal and brutalist in design."

"The quantum and degree of acceleration of loss of beach material that a higher seawall would generate through 'scouring' is also unknown, and Network Rail is yet to publish any meaningful details of coastal modelling that has been undertaken."

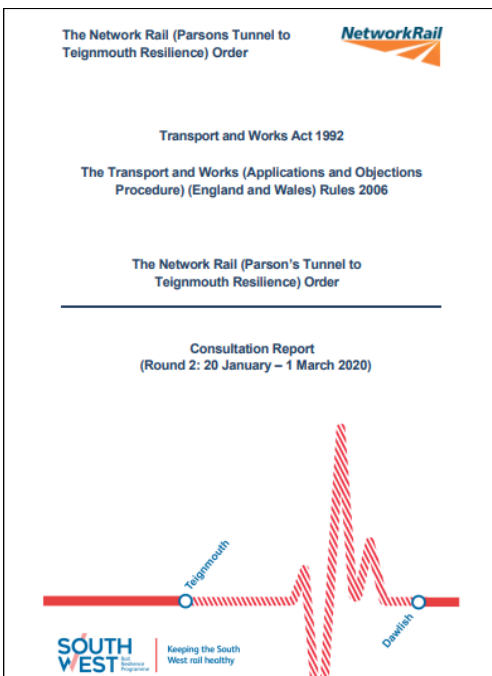
<https://www.networkrail.co.uk/wp-content/uploads/2020/10/Responses-from-public-bodies.pdf>

More than 400 comments were received from members of the public which questioned the need for a resilience Scheme on this scale and suggested alternative solutions. This is one of the comments chosen:

"This approach and proposal is a sledgehammer to crack a nut in response to political pressure when the line was last closed, primarily due to the very striking pictures of the breach at Dawlish, three miles away."

As it would turn out, this one proved to have been good advice:

"Throw away the plans and start again - this is making too much of a job over something that could surely be rectified in a simple and less costly way."



What now for the Network Rail (Parson's Tunnel to Teignmouth) Transport and Works Act Order?

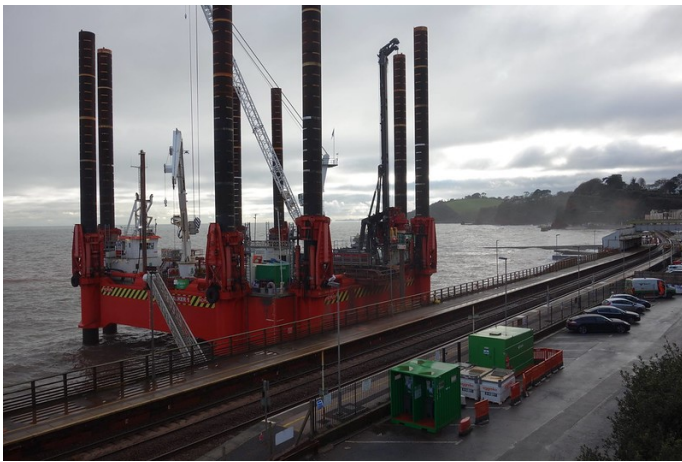
A letter was sent to "neighbours" on 14th October, advising that the track authority would not now be applying for the Order this year.



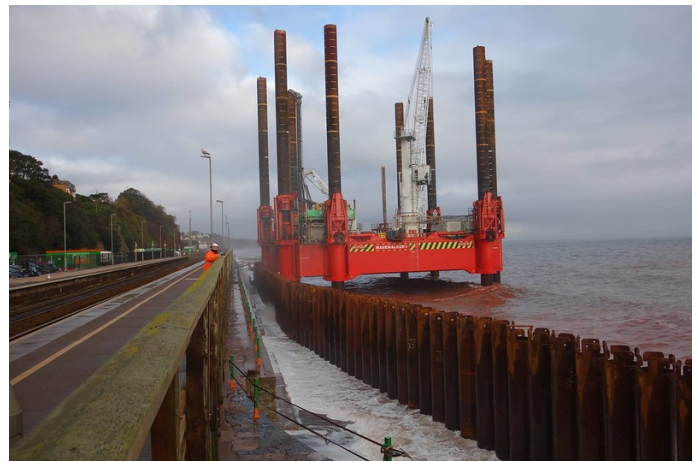
By December, 2020, BAM Nuttall Limited had started on **Phase Two**, a £50-million contract to build a new wall to defend the station.

To enable the circular, hollow steel piles to be driven down to the rock, "Wavewalker I" was hired. Using its eight legs, it can advance bidirectionally along the sea bed or shallows. With four legs taking the weight, the other four can be rammed to the end of a walking stroke and put down. After lifting the other four, the barge can be moved four metres in the required direction. In good conditions, 40 metres per hour is possible.

A total of 328 piles were drilled through the beach material and weathered Alphington and Heavitree Formation. Teeth were cut into the piles to allow them to continue through the intact Formation beneath the looser material to a depth of one metre.



"Wavewalker I" was built in the Netherlands in 2012. The barge has a maximum displacement of 4,500 tonnes. It was first used on a contract in Brazil, after being towed across the Atlantic on an ocean-going barge.



Circular hollow-section piles are being driven into the sandstone breccia as the foundation for precast concrete facing panels. The 110-tonne Delmag drilling rig overhangs on the landward side.

After photographing the work going on at Dawlish in December, the scout had his last ride on a Class 143 D.M.U., one with very bad wheel flats, back to St. David's. The film he made shows just how few passengers there were, five months after the ban on non-essential rail travel, imposed during the plague, had been lifted.

Farewell to the 143s (Listen to the Flats): https://www.youtube.com/watch?v=b6afp4_9aWo

February's Residents' Update reminded readers that it had been seven years since the "ferocious storm" of 2014.

Not long after the anniversary, the last of the piles was installed, releasing "Wavewalker I." The next stage of the work, excavating the beach and casting a concrete toe in front of the piles to protect against erosion, was done during tidal shifts. Following this, the piles were filled with granular material and concrete, and brackets were welded on to help support the facing panels.

The application for Prior Approval by Teignbridge District Council for **Phase Three** of the Resilience Programme was submitted on 19th February, 2021 (21/00402/NPA).

The structure was at this point going to be 224 yards long. Stated in the application:

"The minimum length of rockfall shelter of 89m was identified to respond to the most urgent of identified risks albeit should be designed to incorporate the full length of 205m to future proof the structure. However rather than construct in two stages (as further risk identified) the costing of the construction has identified that better value for the taxpayer in mobilisation costs if its whole 210m length is delivered from the start and would remove the need to revisit the site at a later stage."

Instead of continuing the brick arch of the 1921 tunnel extension, an open-sided rock shelter, of the type much used in mountainous areas in Switzerland and Japan, was chosen.

Of the two reasons given for the shelter having an open side, only one was valid: safer evacuation of a train in an emergency. The other, passengers viewing the sea, was no reason at all, especially as the shelter would rob only seconds from the pleasure, were any passengers ever to indulge in it.

The shelter would be a modular design using reinforced concrete castings, with each portal bay being 20 feet in length. Sections would most likely be delivered by vessel.

The first eight bays would be built using a 400-tonne crane aboard a jack-up barge brought alongside the sea wall. The crane would lift a 130-tonne crane onto the shelter roof and this would assemble the rest of the structure, with the larger crane continuing to deliver sections.

Thought had been given to lowering the sections from the clifftop but this was ruled out because of the weight involved, the reach required and the instability of the ground.

As the work was done entirely within its own domain, and all the equipment and materials were brought by rail, it is unlikely that the G.W.R. in 1920 would have had to seek permission of any kind, the regulatory burden being so much lighter then. The finished works may have needed an inspection, that is all. It is certain that there would not have been a local council planning file containing 55 documents; or that an Application for Prior Approval would have needed these headings: Habitat Survey, Cirl Bunting Mitigation, Habitat Creation Plan, Translocation Feasibility, Bethnic Ecology Assessment, Carbon Assessment, Flood Risk Assessment and Heritage. No Preliminary Ecological Appraisal of the Main Compound would have been needed. And a qualified Ecological Clerk of Works (ECoW) would not have been needed to look out for "foraging and commuting bats."

Fifty years and more later, still none of this had to be done by the builders of the arterial road system.

In March, it was confirmed that government funding of £37.4-million had been secured for **Phase Three**, the extension of Parson's Tunnel as a rockfall shelter.



RAILWAY
STUDIES
COLLECTION

An Up train leaves the eastern portal of Coryton Tunnel and runs beside Coryton's Cove, which is quite sheltered.

Nailing and netting the cliffs behind the camera would be done as part of Phase Four in 2023. The first four tunnels lie roughly north to south but it is railway practice to position structures and installations according to the general direction of the line, which in this case is east to west.

A train emerges from the original masonry bell mouth at the western end of Parson's Tunnel. This would be lost entirely when the line was doubled in 1905.

Part of one of Brunel's bell mouths survives in the western portal of Coryton Tunnel. A 12-yard rockfall shelter was mooted for this portal.

Extension of Parson's Tunnel, 1921

By 1917, three lengthy reports had been produced for the Great Western's Engineering Committee, explaining the need for £77,000 to be spent on cliff sloping and £30,000 on artificial tunnel extensions, where cliff sloping was quite impracticable.

It was recommended that Coryton Tunnel be extended by 20 yards at the west end; Phillot and Clerk's be joined by a 74-yard artificial tunnel; and that Parson's be extended at the east end by 147 yards and at the west end by 13 yards.

The eastern extension of Parson's Tunnel was all that was ever done. It took a year to build and was completed in the summer of 1921, with no interference to traffic.

The estimate for the work on the four tunnels adjusts to about £1.5-million in 2021.

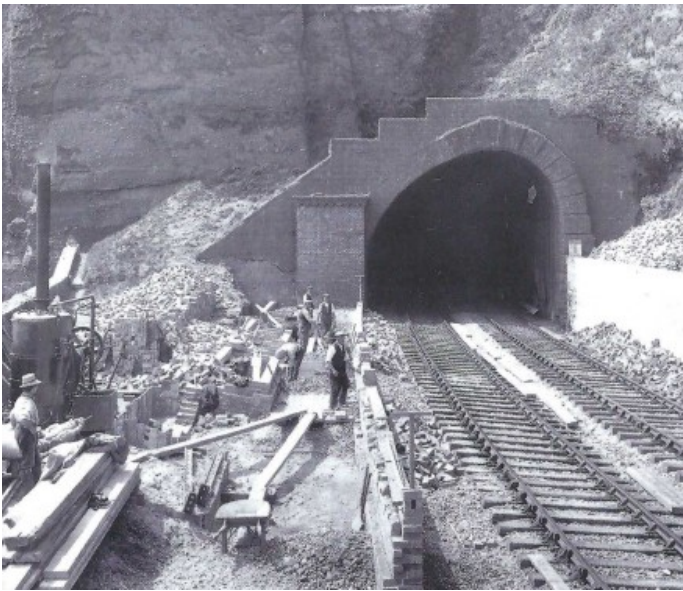


RAILWAY
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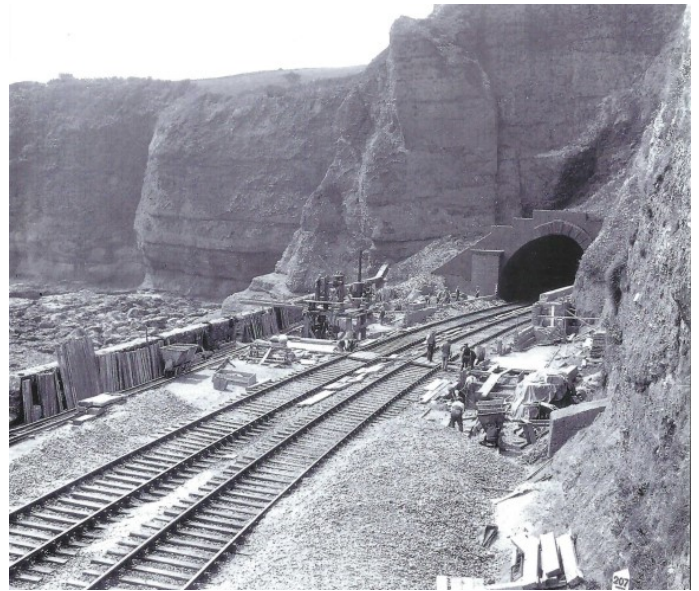


Immediately to the east of the 1921 extension of Parson's Tunnel, beneath the towering cliff, the only protection afforded the line was a short catch fence. In 2021, a start would be made here on the new rockfall shelter which would be completely independent of the sea wall.

It appears that the sea wall has been buttressed to counter the additional weight of the tunnel extension.



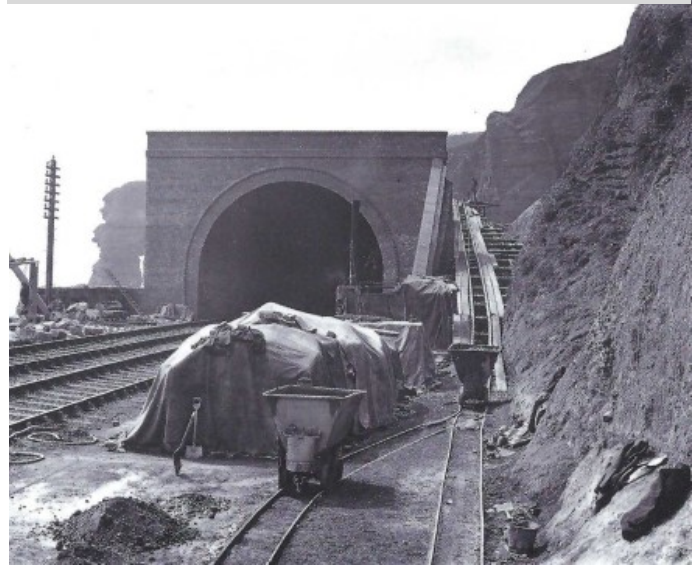
In the summer of 1920, work had started which would hide the eastern portal, a combination of the original 1845 bell mouth and 1905 widening.



The 207¼ milepost, just seen at bottom right, would soon be within the extension.



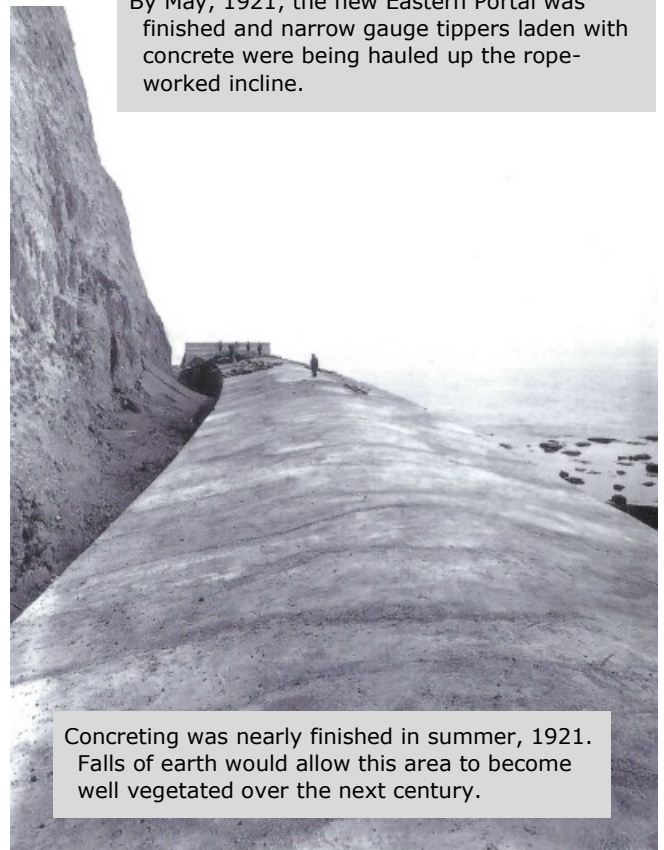
The arch—five rings of brick—was constructed using a shield of bent rails to support the centring. The Parson and Clerk is seen at left.



By May, 1921, the new Eastern Portal was finished and narrow gauge tippers laden with concrete were being hauled up the rope-worked incline.



The side walls and crown were completely encapsulated in mass concrete.



Concreting was nearly finished in summer, 1921. Falls of earth would allow this area to become well vegetated over the next century.

In May, 2021, Network Rail awarded civil engineering group, Morgan Sindall Infrastructure, the £28-million contract to construct the **Phase Three** rockfall shelter, after the Teignbridge District Council case officer, using delegated powers, had granted Prior Approval for the appearance and conduct of the works on 27th April.

By far the greatest impact of the scheme were the compounds and access roads made in the fields above the cliffs. These would require reinstatement when the work was finished. The site itself could only be seen closely from the sea and from Lea Mount, 5/8-mile away; it is a mile from Dawlish Station across the water.

The June Residents' Update reported that work was well underway at Dawlish on the installation of the concrete panels which would form the front face the new sea wall. Over half of the wall panels had now been installed, with three being installed per shift. Because of the space needed on the beach, it was only possible to work during spring tides.

There would be 143 panels in all, each roughly 21 feet tall and weighing 14 tons. A 70-ton excavator and 70-ton crane were being used to lift and install the panels, which were being clipped to the front of the piles that had been installed using "Wavewalker I."

By July, all the panels between the station building and Coastguard's Breakwater had been hung and grouted, and the wave recurve units were being installed. Instead of the trackside fence along King's Walk, here there would be a boundary wall made from concrete segments.



In September, 2021, work is continuing on the wall protecting the station, with most of the precast concrete facings in place and the recurve units above. When £80-million has been spent, there will be a high level walkway from Dawlish Warren to Kennaway Tunnel.



The extent of Phase Two is seen from Boat Cove Breakwater. The piles are still visible in front of the station building. Engineers have now occupied this area almost continually for over seven years.



The concrete boundary wall is seen at centre. Planks and boards from the Down platform will never be strewn across the tracks again. The timbers supporting the Down platform are being entombed in concrete. The contractor, BAM Nuttall, with the agreement of Network Rail, chose Hanson's low carbon "RegenGGBS" (Ground Granulated Blast furnace Slag concrete), which, as the name suggests, is a by-product of steelmaking.



This view provides a good cross section of the work. At left is the original wall at the back of the Down platform, beside the building. Below is the low level walkway, which turned left where the temporary steps are to continue beneath the timber platform. The green posts, below, are on the edge of the walkway. The cylindrical piles, the precast facings and the wave return cappings can all be seen. The space will be filled with mass concrete up to the level of the new walkway.



Working with main contractor BAM Nuttall, Heidelberg Materials, formerly Hanson, designed, developed and delivered innovative concrete mixes, including a low carbon, pumpable concrete (EcoCrete® Elite).



Thousands of tons of this low carbon concrete were used to infill between the new and old walls. Many familiar features were steadily hidden as the level of concrete rose to platform level.



The row of piles, as yet unfaced, continues to the stilling basin. The walkway is still intact, except for the addition of a site safety fence.



A works compound is being established on top of the cliff, preparatory to the construction of the rockfall shelter at the eastern end of Parson's Tunnel.

The seventeenth and final Resident's Update was issued in December. It reported that the new wall was largely complete. The 21 "shadow effect" panels, incorporating architectural details, had been placed in front of the station building. Others would "ghost" the buried part of Coastguard's Footbridge, known locally as Black Bridge.

Work on the platforms was due to begin in January. The Down was to be reconstructed and the Up resurfaced. Both were to be realigned to make them conform to standards.

The Teign Valley scout took in the station and the coast path above Parson's Tunnel in February.



By February, 2022, the old low level walkway had been buried and the piles have been faced. Concrete fill was being built up to the level of the new walkway, indicated by the plastic inspection pit.



The Down platform had been partly rebuilt and brought up to standard. The remainder of the timber-built platform, beyond, would be removed and the surface made solid. This was where the new footbridge would be built.



Nearly the whole extent of the new, £80-million wall is seen from Lea Mount. Demolition of the old stilling basin has commenced.



Preparations are being made on a very confined site for the start of construction of the rockfall shelter. Part of the tunnel portal can just be made out. The Parson and Clerk are nicely silhouetted.



A modern engineer could not be expected to know that it is railway practice that structures and stations are orientated according to the general direction of the line. This really should refer to the Eastern Portal.



The subsidiary works compound and scaffolding steps under construction, viewed from the coast path. The path, with its precarious steps, continues beside the green fence at left.



This scaffolding stairway was a major structure in itself: flights of steps to allow workmen to pass safely from the subsidiary works compound above to the work site at track level. Installing a lift beside the cliff, like the ones attached to tall buildings under construction, must have been ruled out. The houses at top left are on the Dawlish to Teignmouth turnpike. The coast path follows the hedge at the top.



The subsidiary works compound at the top of the cliff by the tunnel. An access track to the cliff edge crossed the path from the compound and it was here that the scout chatted with a couple of Network Rail ladies who he had seen perambulating. One was an ecologist. He pointed out to them that the previous extension of the tunnel had been completed entirely within the railway's boundary fences and with all the materials being brought by rail.

Work continued at Dawlish in 2022 to complete the promenade, seating areas, ramped access to the beach and a new stilling basin. The new £6-million station footbridge was commenced in September.

Full funding of **Phase Four**, cliff stabilization between Kennaway and Parson's tunnels, was confirmed on 31st March, 2022. This would be a £32-million contract, which was expected to start in July, 2023, and be completed by the following spring.



Meanwhile, work had started on **Phase Three** at Parson's Tunnel in the autumn.

It had been decided that it was not necessary to build a 224-yard shelter. A review of the project indicated that soil nails and netting, to keep the cliff material in place, rather than allowing it to degrade, would be sufficient for 114 yards, thus "halving" the length of the shelter to 120 yards. These figures do not correspond with the application for Prior Approval, which referred to a 230-yard shelter.

The contractor, Morgan Sindall, had also dispensed with the need for a jack-up barge carrying a crane, as had originally been intended. Instead, a specially adapted 20-ton "Goliath" gantry crane running on rails was erected. The concrete sections were brought to site by rail from Hackney Yard at night, when, thanks to the loss of all the railways' freight, post and parcels traffic, there are only two sleeper trains running.

Chastened by the reaction to its absurd ideas, Network Rail announced in autumn that it had decided to "look again" at **Phase Five**, Parson's Tunnel to Teignmouth.

Presentations were made in Holcombe and Teignmouth by members of the South West Rail Resilience team: Julie Gregory, Senior Sponsor; Emma Lewis, Engineering Manager; Sarah Fraser, Project Manager; and Ewen Morrison, Senior Programme Manager.

Julie Gregory admitted with some understatement:

"... concerns were raised about the environmental impact of the proposals and there was significant local opposition to the potential impact on the beaches of Teignmouth and Holcombe. Questions were also asked about the justification for the scale of the scheme and the robustness of the data used.

"As a result of these concerns, Network Rail ... resolved to look again at the data. We recognise that the immediate risks come from the cliffs in this location and currently not so much from the sea and therefore we decided to look at whether we could manage the cliffs without moving the railway or tackling the sea wall at this time."

Quietly, "at this time" will no doubt be dropped in future.

"It is our intention to come back to you ... [when proposals are developed] with either another session like this or a more formal style of communication if it is determined that this is required to support the planning consents we may need. We are currently funded to do the investigation work I have just outlined and further progress on the scheme will need to be confirmed in due course. We are very glad we have been able to come out and update you as we know that our previous proposals were worrying for some in the community and we hope that you now have confidence we are seeking to move in a different direction."

On 1st January, 2023, Ellen Grindley wrote this article in the *Teignmouth Post* under the heading:

"Victory for beach campaigners"

NETWORK Rail's proposals for the next phase of the work along the railway line from Dawlish to Teignmouth have been welcomed by county councillors.

The Devon councillors representing Teignmouth and Dawlish also praised campaigners for their efforts to prevent the loss of part of the beach which had previously been suggested as part of the overall plans to future-proof the coastal rail route.

Phase 5 of Network Rail's South West Resilience programme, which covers the 1.8km section of the line running along the coast from Parson's Tunnel to Teignmouth, has now been unveiled.

Cllr Martin Wrigley said: 'The new design is very good, it's credit to the campaigning of the local community and 'Save Holcombe and Teignmouth Beach Group.'

'I'm very pleased that Brunel's wall will be preserved, and that Network Rail will undertake regular monitoring of the cliff.'

The exposed mainline railway between Dawlish and Teignmouth is the only rail link into the south west but is vulnerable to storms and erosion.

Following the devastating storms of 2014, which saw the railway damaged

beyond use for eight weeks, Network Rail started work on plans to prevent this from happening again by launching the South-West Rail Resilience Programme.

Proposals for this next stretch had caused uproar when it was considered moving the line away from the cliffs which would have meant losing part of the beach.

Since going back to the drawing board, engineers are working on new plans which were explained at several public information sessions.

They are now aiming to provide a 'targeted approach' which will assess the risks for 14 separate sections of cliff will be assessed and a bespoke solution will be developed for each.

Cllr David Cox said: 'I hope the new planned improvements to the railway, will create strong resilient transport links to the area, with minimum changes to the iconic railway by the sea.'

Teignmouth Town Councillor, Andrew Henderson, said: 'I was very impressed by Network Rail's presentations, I hope they will come to the town council, so we can see the plans and see how we can support them.'

The revised ideas have been developed since a public outcry over the

potential loss of part of Holcombe beach through moving the track away from the cliff led to engineers looking at different options.

The 1.8km stretch of the line is bordered by steep cliffs on one side and the sea on the other, is at risk of cliff falls, landslips and damage caused by extreme weather which is predicted to increase with climate change.

Following a three-month consultation held in early 2020, Network Rail has been reviewing its proposals to tackle all known and future risks.

'These proposals centred on moving the tracks away from the cliffs while building new sea defences to protect the line from the waves.'

Network Rail says its experts are working to find a solution which protects the railway without impacting the beaches between Holcombe and Teignmouth.

This includes examining what could be done without moving the track.

Over the past two years, extensive analysis of existing data and trials of ground investigation techniques have taken place to further assess the risk from the cliffs to the railway, with more site investigations to come.



January, 2023: Construction of the new stilling basin is in progress. The new promenade footbridge is in place but not yet open. When the stilling basin is finished, the nine-year, on and off engineer's occupation will be at an end. Unless the 200-year storm occurs.



January, 2023: A rail-mounted gantry is being used to position the precast components of the rockfall shelter. Concrete is sent down the pipe seen against the cliff. Viewed from Colonnade Breakwater, about a mile away, a machine seems to be in a perilous position at the top of the cliff.

After opening the £16-million Marsh Barton Station on 3rd July, Transport Secretary, Mark Harper, went to Dawlish to unveil a plaque marking the official completion of the now £82-million sea wall. This plaque, at the stilling basin, was much like the one Heaton-Harris had unveiled at Boat Cove three years earlier.

The area was scouted again in mid-July. BAM Nuttall had won the contract for **Phase Four** in November and had set up a site compound on the Dawlish to Teignmouth turnpike.

The initial reports had mentioned a 270-yard eastern shelter attached to Parson's Tunnel, plus a 12-yard shelter at the west end, and possible short shelters for other intermediate tunnel mouths. Joining Philott and Clerk's, as had been recommended in 1917, was also mentioned. Clearly, like the area to the east of Parson's, nailing and netting were judged to be adequate protection, at least for the time being.



A train crosses Colonnade Viaduct, which appears to be the weakest point of the defensive works.



The now buried seating alcoves and masonry of the station building are outlined in what is otherwise a characterless expanse of concrete.



If the sea were like this all the time, there would have been no need for such costly defences.



Altogether, there are 164 precast facing panels in this section of the new wall.



The lightly tinted concrete sections were made by Cornish Concrete in Bissoe, whose yard and works is built on the former Redruth & Chacewater Railway. The sections were brought to Hackney Yard by road, and thence to site by road-rail trailers. The columns rest on piled foundations. The roof will be covered in a yard of sand, both to cushion any large rockfalls and to prevent bounce. The new 120-yard shelter is a continuation of the 147-yard extension of Parson's Tunnel which was completed in 1921.



No work can be done in modern times without large compounds and access roads. The land rented from farmers will be made good before being handed back, but it is not known what happens to the thousands of tons of "803" which is used. Here, preparations are being made for the cliff nailing and netting contract, separate from the tunnel work.



The coast path is crossed by another access road, this one leading to a worksite above the cliff that will be used by the Phase Four contractor, Morgan Sindall.



A 12-inch depth of "803" on top of geotextile is more than will be found beneath the ballast of most railways.



Could this access not have been shared with the tunnel contractor, to save the cost of the scaffolding stairway?



No one who climbed the stairs to the top would feel the need to go to the gym.

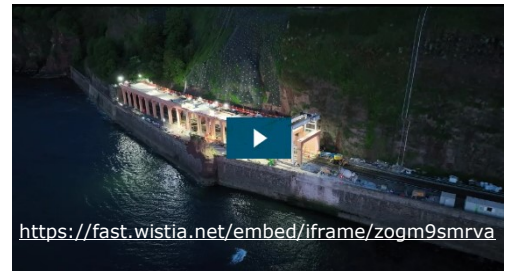


BAM Nuttall's metallised works compound on the Dawlish to Teignmouth turnpike.

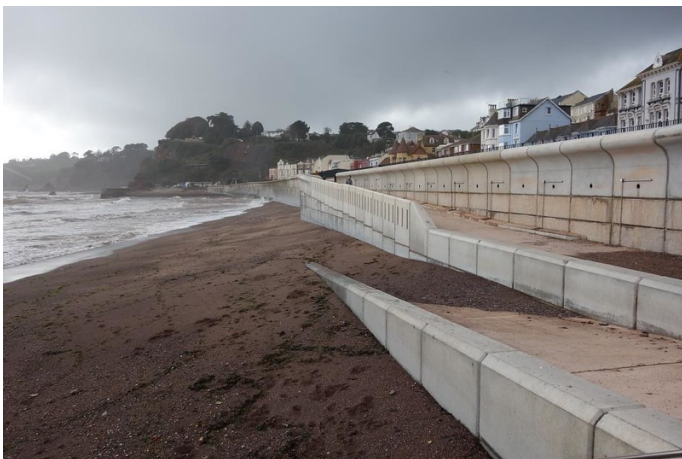
Network Rail announced on 16th October that **Phase Three**, the Parson's Tunnel rockfall shelter had been completed. It had taken two years to build; the longer, 1921 extension had taken a year.

A video charting its construction, with some fabulous aerial footage, can be found on the track authority's web pages.

The scout stopped at Dawlish on 19th October, while riding from Exeter to Teignmouth. The lifts were out of order but otherwise the new footbridge was ready to open, bringing an end to the Dawlish works.



<https://fast.wistia.net/embed/iframe/zogm9smrva>



There had been a storm on 18th October. The following day, sand was seen to have accumulated south of the breakwater, nearly covering the steps at bottom right.



Several hundred tons of beach material had been swept onto the promenade by the stilling basin. Like Beefeaters at the Tower, remnants of the *Orange Army* seem to be on permanent patrol at Dawlish.



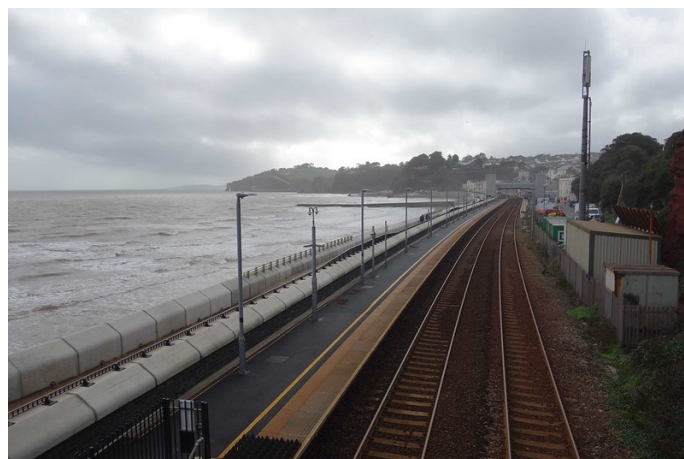
Masonry from the old walls has been used to make seating. One piece of granite has been wrest from its place. The new footbridge now partly blocks the view of Colonnade Viaduct, but it was designed not to be seen from the town.



Now protected from the sea and dried out, the Downside building should be ready to undergo repair so that the rooms can be brought back into use.



The new, fully-accessible footbridge nears completion in July, 2023.



From Coastguard's Footbridge most of the 848 yards of new sea wall can be seen.

A compilation of television newsreel and documentary clips, recording the disastrous breach of the railway's sea wall at Dawlish, the subsequent eight-week blockade and the triumphant reopening of the line in 2014.

The engineering work is rightly given prominence but it is not overlooked that there was feverish activity behind the scenes as controllers dealt with the unprecedented disruption. Hardy passengers have their say, too.

Also covered are the inspections of the line across the flooded Somerset Levels; the relining of Whiteball Tunnel; the removal by road of H.S.T. power cars and trailers to and from Laira Depot; and the loading of logs at Exeter Riverside Yard.

The recordings were made originally on magnetic tape. They were transferred to D.V.D., uploaded to the computer and converted to MP4. The eighty minutes were edited and divided into five-dozen segments using Movie Maker.

One of the great strengths of the British railway system was its route diversity. All the effort and expense in the ten years since the débâcle has been devoted to reducing the vulnerability of the main line, while not one chain of an alternative route has been built.

Correction: The presenter at 11:55 is Andy Breare, not Justin Leigh.

<https://www.youtube.com/watch?v=gJoacD31wrk>

But for the Breach

Had there been no breach of the wall and severe slip in 2014, the expenditure on maintenance may well have continued as it had done for some time, with an annual budget of around £500,000.

Network Rail was always vague about the costs of repairing the wall and clearing the slip in 2014, quoting both £35-million and £50-million. The cost of raising the Sea Lawn walkway was £8-million. At least £20-million has been spent on the development of schemes. With the published costs of each of the four phases of the resilience programme, the total comes to at least £225-million, with Phase Five yet to be started.

In the decade from 2014, but for the breach, as little as £5-million may have been spent on routine repairs.



Viewed from the Shaldon to Watcombe road, the whole expanse of cliff towering above the main line can be followed. Part of Holcombe lies above the tunnel mouth, with Hole Head and The Parson and Clerk to the right. Exmouth is in the distance.

The Other Avoiding Line

At the end of the chapter on the Dawlish Avoiding Line in "Exeter - Newton Abbot: A Railway History," Peter Kay conjectures on what may have happened, had the railway been built, and what value it would have had in later years. He finishes with: "At the end of the day one feels somehow that the GWR did not really have its heart in the 1935 schemes."

Was Network Rail's heart in its latter-day avoiding line, or was the whole exercise just a feint, meant to keep a lot of people occupied, pursuing a dead end? Was it just a big corporate bully trying its hand?

Will questions ever be asked about the vast sum of grant money which was wasted on this scheme?

March, 2024: With sunny spells forecast, the Teign Valley scout rode to Dawlish to view some of the Phase Four works and the new footbridge at the station.



The elegant piers and three spans of the 1928 Colonnade Viaduct replaced the original nine spans carried on granite columns. Dawlish U.D.C. had requested a more open design so as to afford better views of the sea from the town.

Its new neighbour was designed not to be seen from the town, which is why it has railings and not parapets. Several granite blocks from the original viaduct were found during excavations here. The rest of the masonry was tipped between The Warren and Rockstone.



Pebbles driven towards Colonnade Breakwater have covered most of the steps and slope down to the beach.



Peter Haigh was responsible for much of the concrete toe armour which greatly reduced the wall's vulnerability to being undermined by the sea.

On 6th February, 2014, at a gathering of old friends at Exeter's Imperial *Weatherspoons*, the scout put the front page of the *Western Morning News*, with its dramatic image of the previous day's breach, on the table and asked Peter, half jokingly: "Would you go back if the call came?" "I've done my bit," was his reply.



The Phase Four work is immediately obvious from Dawlish Station because the cliff above Kennaway Tunnel has been stripped of vegetation and covered with stainless steel netting, held to the rock by soil nails drilled in places to a depth of up to 40 feet.

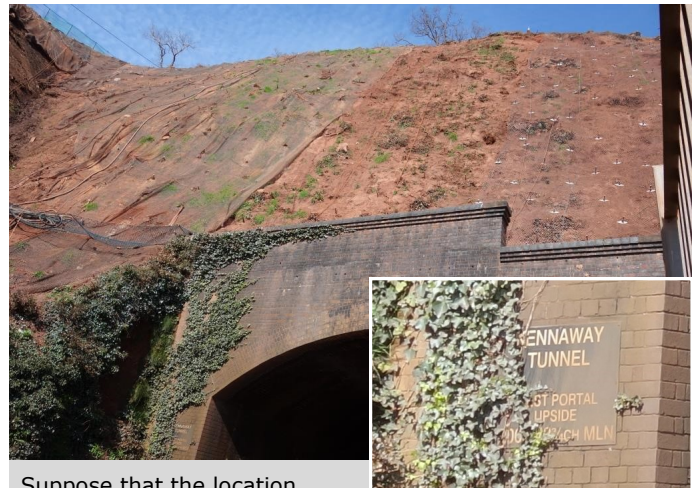
The footpath—the South West Coast Path—can be seen climbing above the portal.



Teignmouth Hill on the Dawlish-Teignmouth turnpike is near the cliff and a footpath is almost at the edge. This cliff and those in Coryton's Cove fall within the Dawlish Cliffs Site of Special Scientific Interest, requiring the contractor to take advice from Natural England. The men were at lunch and were seen on the cliff later. The paths was closed for the duration of the work.



Netting and nailing continues in Coryton's Cove. Lea Mount is at the top of the cliff above the tunnel. The palisade fence is there to deter casual trespass but it makes the area around the tunnel portal very confined.



Suppose that the location needed to be reported accurately in an emergency. Stripping the ivy would be an easy task but no one can be bothered to do it.



The contractor's men have returned from lunch and can be seen on the cliff above Kennaway Tunnel. In the beginning, there was a very pronounced falling gradient immediately beyond the viaduct in order to meet the agreed height of the rails above Marine Parade. Such a sudden vertical transition would not suit today's 60 m.p.h. line speed.



The Downsider building was being refurbished to provide a Waiting Room. There is no exit from the Down platform to the promenade, as it was stated that there would be in the documents, so passengers alighting must cross the bridge and walk around. It is not known whether the emergency exit at the far end of the building can be opened for special events.



The former Coastguard Station, built by the South Devon Railway as a replacement for the one that had to be demolished. The footbridge connected it with the old Boathouse, a casualty of the Phase Two works. The houses beyond lie on Exeter Road. And in the distance can be seen Sea Lawn Terrace and Riviera Terrace, the scene of the spectacular breach of the sea wall in 2014.



The remains of the atmospheric pumping station at the back of the former goods yard. The stations on either side were Teignmouth and Starcross, where the building survives.



Coastguard Cottages Garden has been made into a pleasant viewing area. A steep path leads down to the former Coastguard Station, whose roof can be seen.



Where engineers stood on the morning of 5th February, 2014, and stared into a gaping chasm crossed by suspended tracks. If the coastline recedes in millennia to come, this 5,000-ton lump of concrete should stay put.



The car park at Dawlish Warren, taken over in 2014 as a works compound, has now very nearly been restored. In the distance is Langstone Rock from where the Teign Valley scout photographed the line on 5th February, 2014, not then knowing that the sea wall had been breached.

This brings the ten-year story of the Dawlish Sea Wall, since its disastrous breach in 2014, up to date (March, 2024). An account of the work on **Phase Five** of the Resilience Programme will follow.

The "Save Holcombe and Teignmouth Beaches and Railway" *Mughook* page has been taken down, so there must be confidence that, unlike the fantastic plans to divert the line of railway, work on the cliffs will not incite public protest.
