

Tamar Crossings Newsletter

No. 8 July 2022



Welcome to the latest edition of Tamar Crossings

During the past few months we have taken part in the Platinum Jubilee celebrations, lighting up both the Bridge and the Ferries, and have also changed the layout of the Saltash entrance of the Tamar Bridge south cantilever cycle and footpath to make it easier for people with disabilities to cross the bridge. This edition has information about both these events. We also explain the background to the recent incident with the damaged chain on one of the ferries, and look back on the activities and achievements of our Visitor and Learning Centre since it was opened in June 2019.

We are very proud of the work of our Centre and it was great to receive the following positive comments from the National Lottery:

"As a team, you have made a real success of creating and establishing the Learning Centre and have achieved a huge amount through the project in challenging circumstances."

David List,
General Manager

Celebrating the Queen's Platinum Jubilee

New layout for Saltash entrance

Replacing ferry chains

Learning Centre Celebration

Spotlight on Plymouth City Councillor Pat Patel



Councillor Pat Patel is very proud to sit on the Tamar Bridge and Torpoint Ferry Committee. First elected to Plymouth City Council as the representative of St Budeaux ward in 2021, Pat was appointed as the Cabinet Member responsible for Customer Services, Culture, Leisure, Sport and Community Economic Development in March 2022.

Born in Kenya, Pat came to the UK aged 10 in England's World Cup year of 1966. After serving in the Royal Navy for 25 years, he became involved within his community. He lives in Barne Barton with his wife Linda whom he married in 1986.

Pat became a councillor to help influence positive change and, on being invited to join the Cabinet, asked

for Community Economic Development to be added to his portfolio so that he can help other community groups and organisations to developing their ideas, grow their organisations and bring to reality their communities ambitions.

As a member of the Joint Committee Pat is always ready to ask the awkward questions and is willing to make the tough decisions needed to keep the vital strategic crossing open for communities, commuters, haulage companies, busses, taxi, coach operators and tourists.

"The operation and financing of both crossings is a complex subject" he said.

"It is an honour and a massive responsibility to be working with the officers, elected members, staff and the many agencies to maintain the Tamar Bridge and Torpoint Ferry. Both are vital strategic gateways connecting both Devon and Cornwall and are vital to the economies of both counties."

We are keen to hear what you would like to see in future editions so please let us know at trisha.hewitt@tamarcrossings.org.uk



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Celebrating the Queen's Platinum Jubilee

Like other many organisations across the country, we joined the celebrations to mark the Queen's Platinum Jubilee.

Lighting up the Tamar Bridge:



Lighting up the Torpoint ferries:



We also supported Torpoint Town Council in hosting a beacon lighting in Rendel Park



New layout for Saltash entrance of south cantilever cycle and footpath

Following concerns from a Saltash resident and mobility scooter user over the layout of the Saltash entrance of the Tamar Bridge south cantilever cycle and footpath, we have introduced a number of changes to make it easier for people with disabilities to cross the bridge.

Mary Marnell makes frequent visits to St Budeaux which means she needs to cross the Tamar Bridge. Having experienced some access problems during last year's resurfacing works, Mary was looking forward to being able to drive her mobility scooter across the South Cantilever once it was re-opened to pedestrians and cyclists.

Unfortunately for Mary the planned works did not include any changes to the existing staggered cycling hoops installed as a safety measure when the bridge was widened 20 years ago to prevent cyclists from riding from the cycle path straight onto the road.

"It has always been difficult to manoeuvre my scooters through the cycle hoops" explained Mary.

"It usually meant I had to reverse into the bushes at the entrance to the lane and then move back and forwards a number of times to get through. Not only did this cause scratches on the paintwork, it often led to key parts being broken off the vehicles."

Having recently bought a brand-new mobility scooter, which was larger than her previous vehicle, Mary was determined not to let it be damaged and contacted Cornwall Councillor Martin Worth to ask for something to be done.

Cllr Worth, who is also Joint Chair of the Tamar Bridge and Torpoint Ferry Joint Committee, was attending a concert by the Tamar Valley Male Voice Choir in aid of the Ukraine at the town's Methodist Hall when Mary approached him during the interval.

"It ended up with us leaving the building and going down to where her mobility scooter was parked so she could show me the issue face to face before the start of the second half" he explained. **"I could immediately see the problem and promised to sort something out."**

A phone call to Tamar Crossings led to Engineering Manager Richard Cole taking up the issue.

Having spoken to Mary and checked with Tamar Mobility about the size of the scooter, Richard arranged for the cycle hoops to be removed and replaced with an island in the middle of the path separating the pedestrians and cyclists, and improving access for all users.

"They have done a fantastic job" said Mary. **"The new layout means I can now use the lane without damaging my scooter. I was only expecting them to relocate one of the cycle hoops to provide more room, so for them to install a complete new layout is great and I am very pleased."**



Replacing ferry chains

The Torpoint Ferries run on pairs of chains spanning the river. These chains need to have a certain level of tension in them to enable the ferries to cross the river and dock safely and efficiently.

The ends of each chain are connected to swivels and tensile steel wires under the road joining to two large weights and pulleys housed in gantries on each side of the river. The weights are buckets made of steel housing cast concrete. Each bucket weighs approximately 6 tonnes, helping to keep the chain tensioned and the ferry on track in all weathers and tidal conditions.

Replacing the steel chains which propel the ferries across the river is always challenging. Each individual chain is over 650 metres long and weighs 23 tonnes - with the total length and weight of chains in the river around 4 kilometres (approximately 2.4 miles) weighing some 140 tonnes.

The chain wheels are nearly two metres in diameter and have pockets on their circumference which grip the chain

links. This is the equivalent of the sprocket on a bicycle, but instead of the chain engaging on cog teeth, it engages in the pockets. The chains run through chutes within each side of the hull of the ferry.

These chutes are lined with special materials to handle wear and tear and keep noise under control. Each chainwheel drive has a hydraulic disc brake to stop the ferry. There are over 1000 sensors per ferry and staff carry out constant visual checks to ensure that any problem is flagged up as early as possible.

The interaction between the chains and the chain wheel, combined with the abrasion caused by the slipways and the gantry weights, means the chains are normally replaced once every three years.

A main chain change is a major and lengthy job that cannot be done with the ferry in service, and is only achievable when the wind and tides are within set limits.

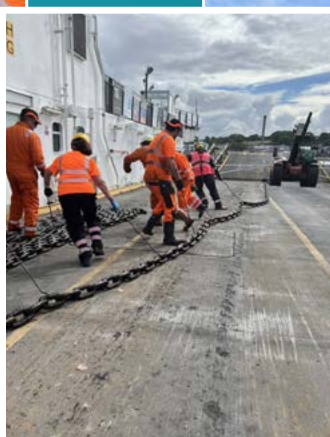
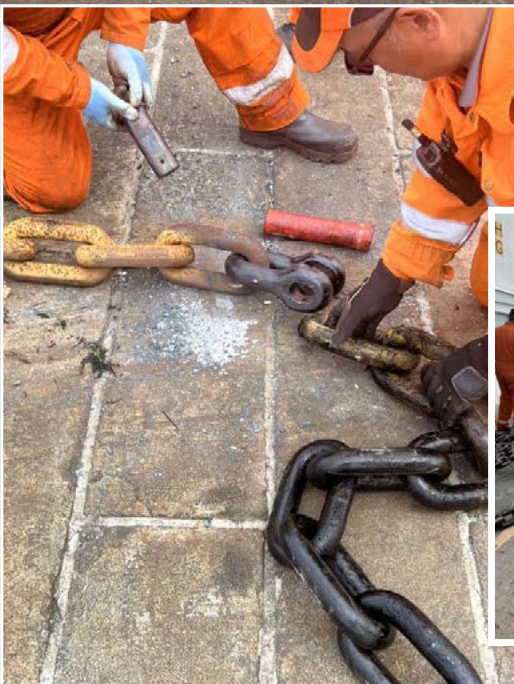
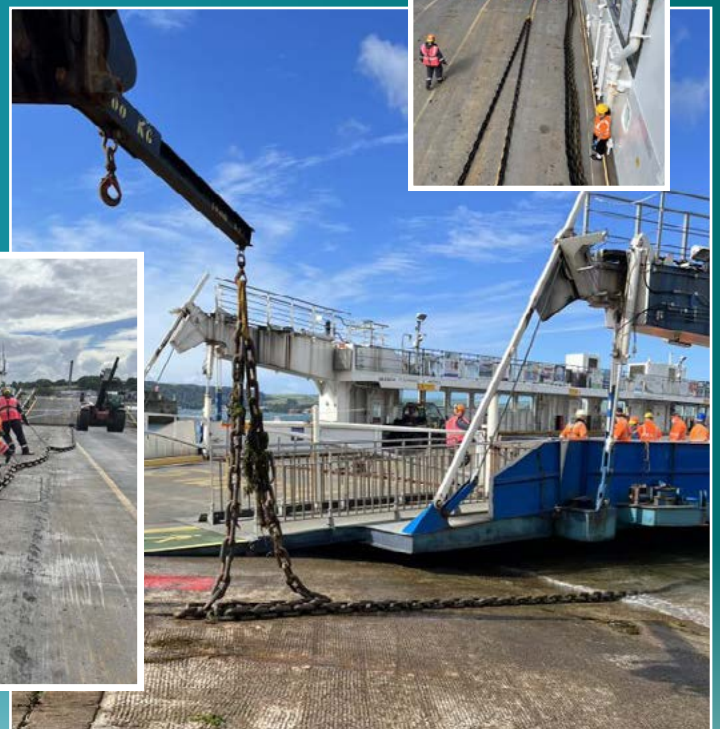
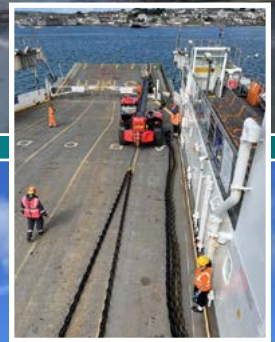
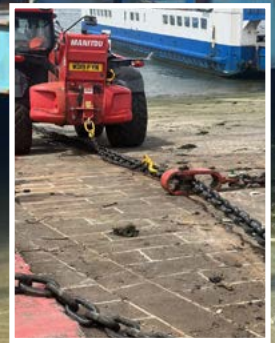
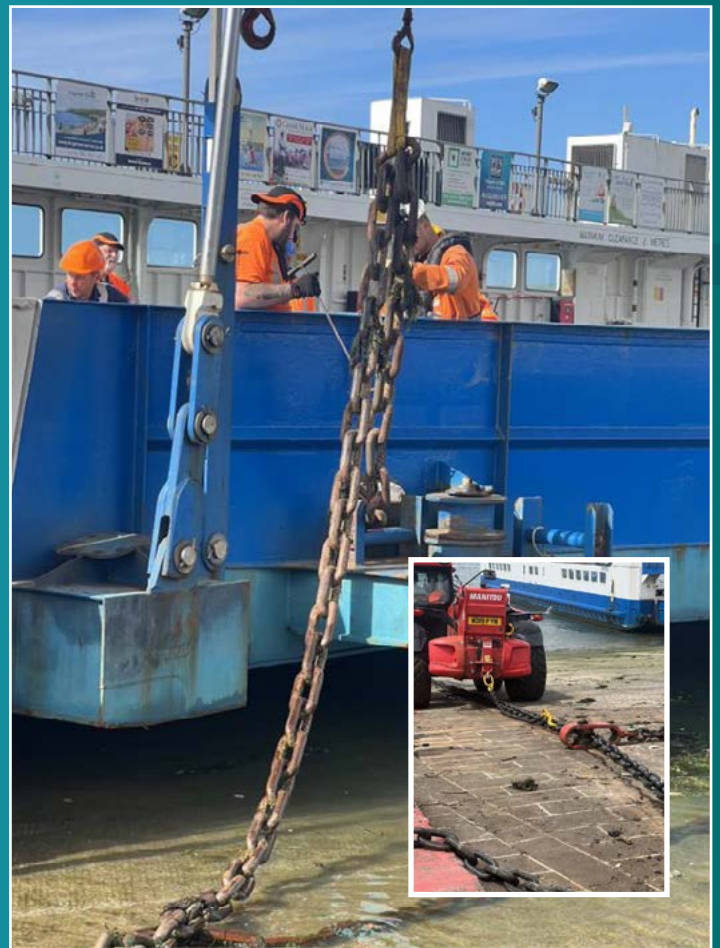
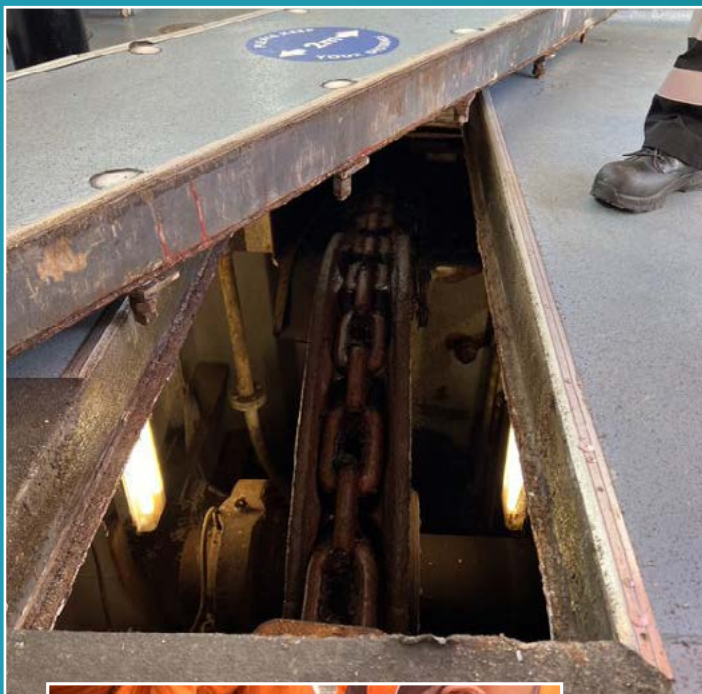
This work is usually planned well in advance so we can keep disruption to a minimum. However there are occasions when a chain becomes damaged and a ferry has to be taken out of service immediately while repairs are carried out or the entire chain replaced.

Unfortunately, this was the case last month when one of the two chains on Tamar II broke without warning on a Friday afternoon.

The maintenance team worked throughout the weekend to recover the broken chain and fit a new replacement chain to the ferry. However, as the ferry's second chain was fitted at the same time as the broken one, it was decided to change this one as well before bringing the ferry back into service.

This work was completed by the end of Thursday, enabling us to return to a three ferry service.

The faulty chain has been recovered from the river bed and an investigation is currently underway to try and establish the root cause of the problem.





Celebrating the Visitor and Learning Centre

On 21 June 2019 The Bridging the Tamar Visitor and Learning Centre opened its doors to the public.

This was a very special day for everyone connected with the iconic Tamar Bridge as the Lord Mayor of Plymouth and the Chairman of Cornwall Council joined children from local schools, members of the Tamar Bridge and Torpoint Ferry Joint Committee, Tamar Crossings staff and volunteers for the official opening of the new Centre.

Funded by The National Lottery Heritage Fund and Tamar Crossings, the Centre was created to help to change public perceptions of the Tamar Bridge and Brunel's Royal Albert Bridge by celebrating their engineering and heritage significance, with the aspiration of becoming a STEAM (Science, Technology, Engineering, Art and Mathematics) hub.

During the past four years the project has engaged people from a wide range of backgrounds and has included communities from both sides of the River Tamar. These range from pupils from inner city Plymouth to adults with learning disabilities; from older people with memories of the Bridge being built to young musicians building their careers, from engineering professionals to aspiring College students, and from members of the public joining online events when shielding during the pandemic to tourists visiting from abroad.

What the Centre offers

Run by two dedicated members of staff and supported by a core group of 30 volunteers, the Centre features an exhibition with displays exploring the heritage of both bridges, interactive bridge and anchorage models, oral histories, music videos and films, touchscreens showing images, interactives, and a schools' learning space with cloakroom and bridge models.

Open daily to the public between 10am to 4pm, the Centre provides guided tours, an events programme and schools workshops. A group of local Bridge Ambassadors have been recruited and trained to welcome visitors, deliver tours of the Centre and local area and support schools visits.

Working with schools



Almost 3,000 school pupils have taken part in Learning Centre workshops, enabling them to learn more about the significance of the bridges, to be inspired by engineering, and to improve their confidence approaching STEM subjects.

During this year's British Science Week the team ran sessions with Laura Green School, and also provided teachers with some STEM CPD sessions to support the provision of STEM (Science, Technology, Engineering, Maths) within schools.



It has also hosted visits from young people attending the Brook Green Centre for Learning who found out about career options.

The Centre has worked in partnership with the Devon and Cornwall Rail Partnership, with children from Calstock arriving at St Budeaux Station. Carbeile School enjoyed meeting Mr Brunel in the newly refurbished Saltash Station while Tor Bridge pupils enjoyed an all-day workshop in partnership with The Box museum in Plymouth.

Delivering guided tours and talks



The Centre runs regular guided talks of the bridge three times a week, increasing to six times a week in summer season. There are monthly behind the scenes Anchorage tours and special walking tours of other sites of interest throughout the year. There have also been tower-top and under-bridge tours.

The team also offer pre-booked tours and audience-specific events for engineering heritage specialists, undergraduate and postgraduate students, Scout groups and youth groups. Scouting workshops are available including the use of a monkey bridge.

Tamar Crossing's engineering team recently led a visit for CECA (Civil Engineering Contractors Association)

"We all went away hugely impressed not only by the structure itself but also by how skilfully the bridge is being maintained and looked after. Your enthusiasm and passion for the work you do to preserve the integrity of the crossing is clear for all to see."

Supporting Adult Learning

The Centre works with national adult learning organisation WEA, the UK's largest voluntary sector provider of adult education in England and Scotland, to provide a range of activities for adults.

During the past few weeks the team have welcomed adults with learning disabilities from Better Futures in Plymouth and had visitors from Green Bank Care Home.



Supporting local events and activities

While the pandemic inevitably limited the number and capacity of the events programme, the team have still been involved in a number of local events and activities.

These include the launch of the Learning Centre, Heritage Open Days, Plymouth History Festival events, stalls at the Saltash Regatta and May Fair and family activities including animation workshops, STEM and nature workshops.

One of the highlights was the special 60th anniversary celebration at the Tamar Bridge in October 2021.

This really was a weekend to remember, with activities including:



The opportunity to walk underneath and within the structure of the bridge

Climbing to the top of the Plymouth tower for four 'lucky' ballot-winners

The unveiling of a new exhibition of photos and images in the Visitor Centre

A special drive across the bridge by a number of vintage and classic cars that would have been on the road in 1961



The laying of a wreath to commemorate the seven people who tragically lost their lives during construction

The Centre also worked with Fotonow and local young people to co-curate new interpretation panels for the bridge, make music videos, and take part in an inter-generational 60th anniversary event with older members of the community who had stories about working on the bridge, or had memories of it being built.



Some of the images and the stories shared with the team had never been seen or heard in public before. These include the story of a stilt walker – Leo Wellington – who walked across the bridge just after it opened.

91-year-old Gerald Ashton, who helped to build the Tamar Bridge, was one of the people who attended the 60th anniversary event. Accompanied by his son Gary, Gerald presented us with the hard hat he wore more than 60 years ago.



Tamar Crossings produced a [short film](#) about the weekend which you can watch on the website.

Building our archives

The Centre's archive of photography, records, oral histories and objects has grown substantially over the past four years. It now has 40,000 images and the team are in the process of documenting and recording the material so it can be seen by members of the public.

The archives cover an amazing range of subjects, including the Tamar Bridge (construction and operation), the Royal Albert Bridge (construction and operation), the social history of Saltash and Saltash Passage (St Budeaux), Saltash Ferry, the Torpoint Ferry, the Railways (Cornwall Railway, Great Western Railway, and the British Rail Saltash Station), World War Two and Normandy Way.

There is also information about the River Tamar, the history and natural history at the crossing point, the workers (there is little known of anyone other than Brunel), the Workshops, the Royal Albert Bridge Inn (now closed), the organisation of labour, the Cornwall Railways, alternatives to crossing at Saltash, Millbay - Brunel's Ocean terminal, and Brunel's connections in Plymouth.

The Centre has also had a fantastic array of objects, images and oral histories donated by the public, with a rich bank of knowledge and stories unearthed by the staff and volunteer team.

One of the items is an historic ferry bell which was discovered in the attic of a Saltash resident after being missing for more than 60 years. The bell originally came from one of the steam powered chain ferries which were built in the 1930's to carry passengers and vehicles across the River Tamar between Saltash and Plymouth.

The two ferries were retired in 1961 when the Tamar Bridge was opened and the location of one of the bells remained a mystery until Andrew Davy found it in the attic while he was clearing out his late father's things. Andrew is also a volunteer at the Centre and decided he would like to donate the bell so it can be displayed in the Centre.

Our research volunteers are making headway with the early days of the Cornwall railway and plans for the trains to use the Torpoint Ferry. There is also new information about the buildings that were demolished at the Saltash end of the bridge. One building - an old well or conduit - was destroyed but the arch and date stone (1715) are held by Saltash Heritage.

Perhaps the most interesting piece of research is a death certificate for someone who died while constructing the Royal Albert Bridge. Until now it had been told that there were no records of anybody dying during construction. However, the death certificate clearly states that the young labourer fell from one of the tubes to his death. There is a lot more research to do on this individual but it is a breakthrough.



Andrew Davy Collection

Volunteers programme

More than 50 volunteers have been recruited as Bridge Ambassadors during the course of the project.

They are on hand to welcome visitors, deliver tours of the Centre and local area, and to support school visits. They also support the events programme, as well as assisting with online events, and carrying out historical research.



Volunteers also lead the popular guided tours on Tuesdays, Thursdays and Saturday mornings during the winter months as well as supporting the pre-booked tours held on Tuesday and Thursday afternoons during the summer.

A group of eight brilliant new volunteers joined the team as a result of the Spring recruitment drive, and following training and induction, have had a range of opportunities to get involved in.

One of the new volunteers is Lyn who was looking for a local project to get involved with so she could meet people following the pandemic.



"I moved to Cornwall from the Midlands with my husband and my youngest daughter after retiring six years ago" she said. "I had previously worked for the NHS in Coventry where I was the lead for apprenticeships and learning.

After working for the Nuffield Hospital in Plymouth for three years providing cover for a range of different roles, Lyn decided to retire properly just before the start of the pandemic. Following the end of lockdown she decided she needed to do something where she could meet people and was browsing leading volunteering roles on the internet when she came across the advert to become a Bridge Ambassador.

"My job in Plymouth meant I drove across the Bridge every day and while I had never really thought about its history before, I liked the idea of becoming a Bridge Ambassador" she said. "In my previous job I had taught young people between the ages of 16 and 18 and so this role seemed ideal."

After submitting an application Lyn was delighted to be selected to join the volunteering team. She has now completed her training and is looking forward to leading her first groups.

If anyone is interested in volunteering please email volunteer@tamarcrossings.org.uk

What happens next?

Wrapping up the Lottery project has enabled the team to reflect on the feedback received to date, which has been overwhelmingly positive.

The team are planning to further develop the Centre's programmes, exploring contemporary issues such as climate change and the future of engineering, and working with staff and contractors to communicate the behind the scenes work in maintaining the Tamar Bridge. They will also continue to develop and conserve the growing archive of physical, digital and intangible heritage.

While the Centre will remain free for the public to enter, the ending of the Lottery funding means it needs to charge a small fee for educational workshops, which have been free to date. The £3.50 per child fee remains lower than most organisations in order to support local schools.

Comments from the public include:

"The whole layout of the site was excellent, from adequate car parking to the picnic and garden areas. The Learning Centre itself is light, bright and welcoming. Mark was a charming and knowledgeable host. The pictures, old photos and plans enriched the talk. There is such a valuable archive and the illustrations really brought it to life."

"The talk was really informative. The exhibition is incredible. It has engaged my little ones, and sparked their imaginations."

"As a team, you have made a real success of creating and establishing the learning centre and have achieved a huge amount through the project in challenging circumstances."

(National Lottery Heritage Fund)