River Usk Viaduct Refurbishment

Network Rail are carrying out improvement work to the River Usk Viaduct in Newport as part of the Railway Upgrade Plan which will help accommodate growing passenger numbers. The viaduct carries the South Wales Mainline across the River Usk in Newport.

The 12-span structure was grit blasted and painted with structural repairs where identified pre and post blast, all of which was carried out by Centregreat Engineering with a majority of the works being completed at night and over weekend to minimise disruption. The project has an initial programme of 44 weeks, this was extended due to the increased in repair work required following the post blast inspection.

Centregreat Engineering are also manufacturing and installing the new steelwork support structures for the electrification works.

Barry Viaduct Refurbishment

Barry Island Viaduct was built in 1880 and is an 18-span steel structure carrying both a single track of the BRY line between Barry and Barry Island Stations and a single track of the Barry Tourist Railway. The whole deck is approximately 135m long x 7.3m wide between parapets.

This project ran concurrently with the River Usk Viaduct and was of a similar nature; grit blasting, painting, steelwork repairs and strengthening.

The contract was awarded to sister company, Centregreat Rail, and the management and execution of this project was recognised and commended by Network Rail.

The works were carried out in close proximity to residents and the routes below the viaduct were maintained for access to the beach car park. Acoustic barriers and a totally enviro-wrapped scaffold system was implemented to provide stringent controls on noise and dust levels, all of which was fully appreciated by local residents.
South Quay Piling Frame, Poole

A positive working relationship with BAM Nuttall, following the successful delivery of recent RNLI projects, has led to Centregreat Engineering adding Piling Rigs to their portfolio.

Having priced the substantial framework fabrications based on outline designs, Centregreat Engineering developed the detail with BAM Nuttall’s in-house design team to suit the best manufacturing practice and achieve the accuracy the team were looking for on site.

The frames, once supplied, enabled the site team to install the Piles with greater efficiency, thus creating savings on the overall project cost.

Totnes Station Footbridge, Devon

Centregreat Engineering have just completed the manufacture of a 24m span footbridge along with associated stairs and lift shafts as part of Network Rail’s AFA (Access for All) schemes for Totnes Station in South Devon.

The subsequent installation of the structure is being carried out over three Saturday night possessions during Summer 2018.

Once the new footbridge is installed and opened to the public, the existing bridge structure will also be dismantled by Centregreat Engineering, Network Rail are considering the possibility of refurbishing the span section and its possible future use at an alternative location.
Stonehouse Station Footbridge

Stonehouse footbridge, originally built in the 1890s and located on the Swindon to Gloucester Golden Valley Line, is once again in Centregreat Engineering's workshop in Cardiff being modified to suit the increased height for impending electrification works. The bridge was part of the original 5 bridge Western Footbridge Package carried out in 2015 by Centregreat on behalf of Principal Contractor AMCO.

The modification to the bridge itself is being kept to a minimum to maintain its original aesthetics with new stairs, trestles and landings giving it the height increase required.

Newport Station Canopy Works

Following the successful completion of Phase 1 of the canopy cutbacks at Newport Station for the consortium ABC, Centregreat Engineering were re-engaged by Alun Griffiths via Centregreat Rail to carry out Phase 2 and Phase 3 works.

The works include the removal of existing redundant steelwork, cutting back of canopies for new gauge clearance and making good, supply and fitting of new fascia and roof steelwork together with new GRP dagger boards and drainage systems. All works carried out by our experienced in-house teams.

Such complex works required extensive surveys and installation was carried out mainly on nights and weekends due to constant rail movements throughout the day.
Clevedon Pier Maintenance Works

Clevedon Pier was opened in 1869 to receive paddle steamer passengers from Devon and Wales. Today it is a focal point for events in Clevedon and once again you can take boat trips aboard the paddle ship Waverley and the MV BalmoralNetwork.

As part of our long-term relationship with Clevedon Pier Heritage Trust, we recently secured a 3-year maintenance programme to maintain this beautiful structure and ensure continued access and enjoyment for the public to the paddle steamers docking at the end of the pier.

This year’s maintenance works involved the use of Rope Access Engineers as the safest way to carry out inspection and repairs to certain areas of this historical structure.

Tesco Car Park Inspections

With the main group company, Centregreat Limited, having a maintenance contract to carry out general lighting inspections and repairs at Tesco stores and grounds throughout the UK, the Engineering division were invited to use their expertise in works outside the agreement, involving bridge and carpark structures at a couple of their stores which were showing signs of deterioration.
Padstow Lock Gate Refurbishment

Having completed the modification of the redundant stop logs, from Sutton Harbour, to suit the lock entrance at Padstow, they were then utilised to enable the lock gate to be taken out of service for major refurbishment.

The gate itself was disengaged from its fixings and floated round the harbour to a suitable point where it could be lifted out onto pre-assembled temporary works and fully encapsulated.

Blasting was carried out and repair works identified and completed prior to painting, extending the life of the gate. Once completed, the gate was re-floated, reinstalled and commissioned in time for the Easter opening.

Heybridge Caisson Lock Gate

Having manufactured Heybridge Caisson gate, guides and rails, along with the associated hydraulic controls, for Northumbrian Water Limited, Centregreat Engineering were then employed by IWS (the client’s framework contractor) to install and commission the gate at Heybridge Basin.

The gate, manufactured in 4 sections due to site lifting restrictions, is operated by a single cylinder mounted on top of the gate via controls adjacent to the lock. As part of the package Centregreat supplied and installed stop logs and guides which enabled work to continue during tidal conditions.

The gates principal use is to act as a flood defence, however it is now being utilised by the lock keeper as it gives the lock a greater capacity and easier mode of operation than the existing manually operated mitre gates.
**Cowbridge Road Underbridge**

Essential repair and maintenance works were required at Cowbridge Road following several vehicle impact collisions to the bottom flanges of the main girders.

It was decided to replace the existing, life-expired, steel parapets in favour of repairing them as all works had to be carried out during Saturday night road closures.

The works were carried out using the wider Centregreat Group’s in-house low loaders and HIAB’s; ensuring all parties were available to meet the tight road closure timescales. It took a total of nine Saturday night road closures to complete the works required.

**Glamorganshire Canal Bridge Upgrade**

Strengthening and painting works at Glamorganshire Canal under bridge were carried out during a complete road closure over a planned 11-week duration. It was therefore imperative that the works were completed on time, the scheme was actually completed a week ahead of schedule.

Works comprised scaffold erection, encapsulation, grit blast and painting, surveying, manufacture off-site and installation of new top hat strengthening sections.

The works have been carried out for sister company Centregreat Rail on behalf of the client Network Rail IP Wales.