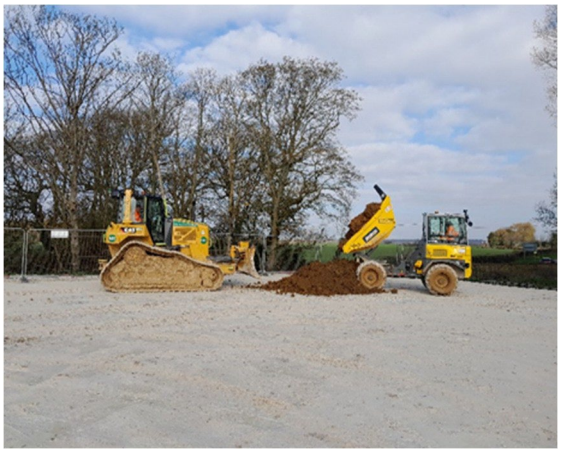
A284 Lyminster Bypass (North) – Progress Update

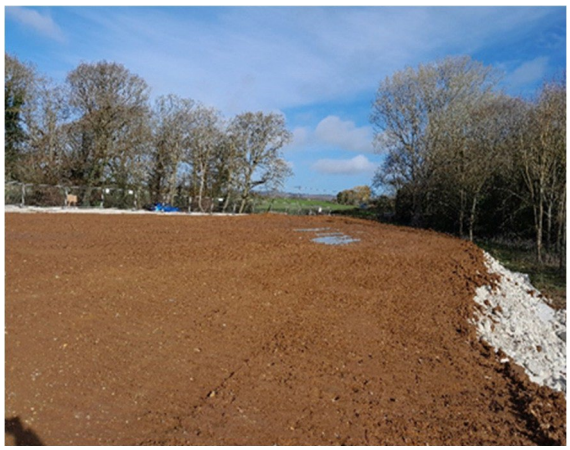
Date: 28th April

North of the Ancient Hedgerow

This month we have completed filling the area north of the hedgerow with class 1A fill. When we finished placing the chalk, we then stated placing subsoil on top of it. This is what will give the extra weight to allow the clay beneath the embankment to settle. Unfortunately, due to inclement weather we had have had to stop placing material temporarily because the soil was too wet. Piezometer readings are continually monitored, these measure the water pressure at varying depths beneath the surface to show whether the soil is settling.

Upcoming works will be to complete the placement of surcharge material. Once this is done several monitoring stations will be dug down into the material to act as another means of measuring the settlement.

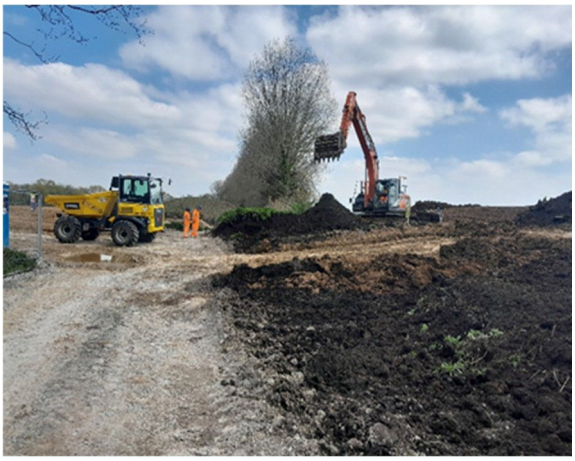




Ancient Hedgerow to Bridleway

At the start of the month, we were removing a large stockpile of subsoil by moving it onto the surcharge area. Using dozers, we have been removing more subsoil between the hedgerow and bridleway to be placed as surcharge. Most recently we have been removing the leftover tree stumps from the ancient hedgerow - This was under the supervision of an ecologist to make sure no habitats were being destroyed.

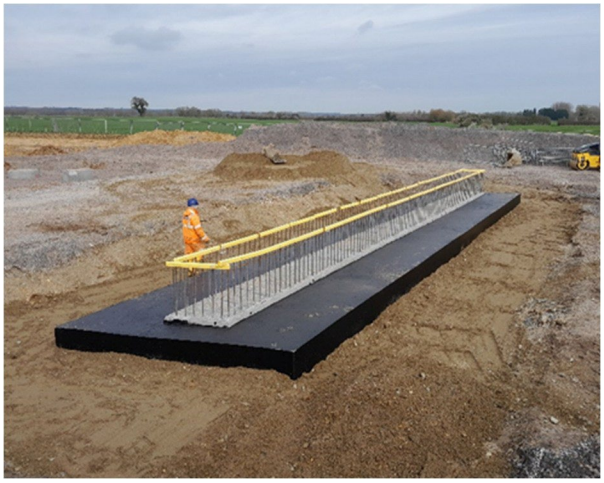
Upcoming works in this area will include moving the subsoil across to the road embankment for surcharge and start installing drainage.



Bridleway to Black Ditch

At the start of this month, pile caps for two of the piers were poured. The caps are then coated with an emulsion which provides a waterproof membrane around the cap. This is important because the cap sits below ground level in a flood plain so water is a constantly around. Once the pile caps were coated, they have been backfilled and will await the steel fixers to start constructing the stems.

Upcoming works will be continuing to build the pile caps, pour the concrete and backfill.



South of Black Ditch

South of Black Ditch two of the piers have been poured, coated, and backfilled.

Upcoming works will be continuing to crop the piles on the piers. The steel fixers can then start to build the rebar followed by formwork being put up and then pour them.

For further information about the scheme please visit the Lyminster Bypass North page on West Sussex County Council's website:

https://www.westsussex.gov.uk/roads-and-travel/roadworks-and-projects/road-projects/lyminster-bypass-north/

Should you have any specific scheme enquiries, please contact lyminsterbypass@jackson-civils.co.uk

A284 Lyminster Bypass (North) – Progress Update

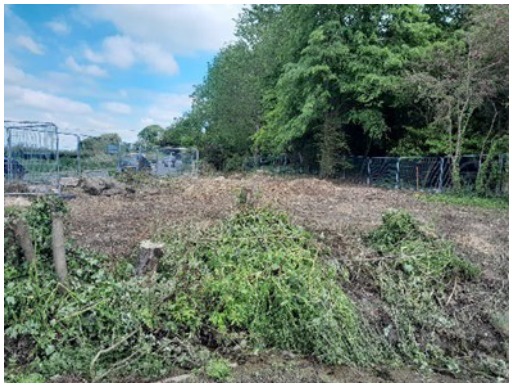
Date: 09/06/23

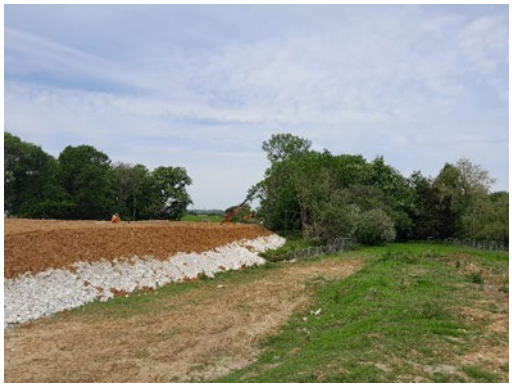
North of the Ancient Hedgerow

This month we installed monitoring stations so that the settlement of the embankment can be recorded. We started surveying these to monitor the amount the embankment settles.

North of Brookfield stream we carried out most of the remaining tree and vegetation clearance that required lane closures on the A284. The area was extensively surveyed for protected species and nesting birds by a specialist ecological clerk of works during the felling and none were found.

Whilst the tree clearance was going on we also mapped the existing utilities in the road to allow us to better plan the water main diversion planned for early next year.





Ancient Hedgerow to Bridleway

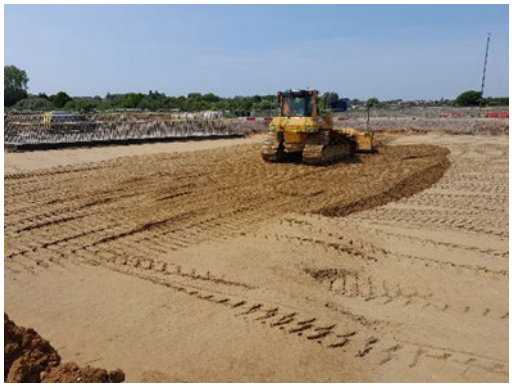
In this section of the works, we have continued to install the new road drainage. We have also excavated a dry pond which will be used to store the rainwater which will run off the new road.

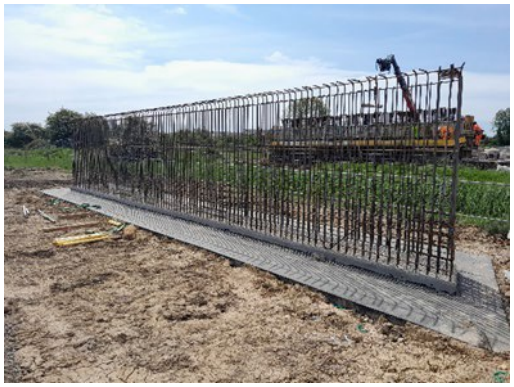
Street light ducting has also been commenced and we have started to place the stone that forms the foundation of the road in this area.

Bridleway to Black Ditch

Following on from the last newsletter we have continued with fixing reinforcement steel in this area ready for pouring the piers up to beam height. All four piers have been poured up to existing ground levels.

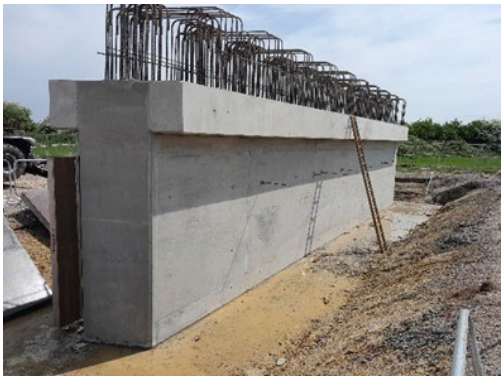
Behind the northern viaduct abutment, we have had to remove the existing soil and replace it with another aggregate to make it suitable to construct the embankment on top of it.

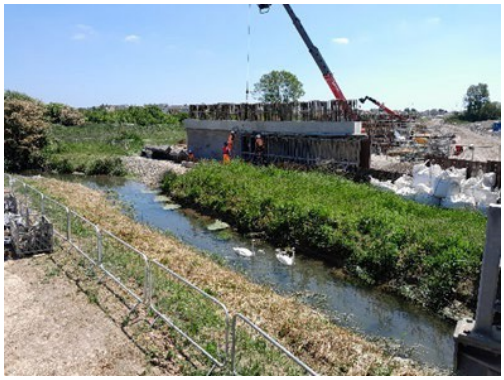




South of Black Ditch

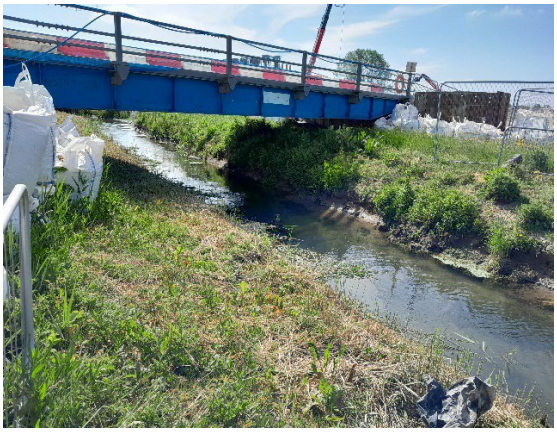
This month we have poured the first two piers of the viaduct up to the underside of bridge beam level. All the other piers are up to existing ground level. Steel fixers have been continuing to build the rebar for the stems, whilst the formwork is being put up ready to pour more piers.

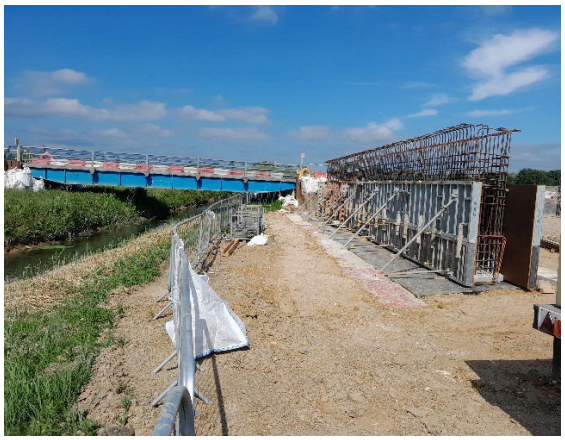




Reducing our impact on local roads

As part of our efforts to minimise impact on the local community we have installed a temporary bridge across black ditch. We have used this bridge to move most of the materials dug out and removed during the bridge foundation excavations. It also minimises the need for construction plant to either drive across or be transported across the existing roads. We estimate the bridge will save a total of 1080 lorry movements through Lyminster during the construction of the scheme.





In relation the water leak on Lyminster road, West Sussex County Council will be dealing with this from 19th June. Due to this, there will be traffic management present on Lyminster Road from this date.

For further information about the scheme please visit the Lyminster Bypass North page on West Sussex County Council's website:

https://www.westsussex.gov.uk/roads-and-travel/roadworks-and-projects/road-projects/lyminster-bypass-north/

Should you have any specific scheme enquiries, please contact lyminsterbypass@jackson-civils.co.uk

A284 Lyminster Bypass (North) – Progress Update

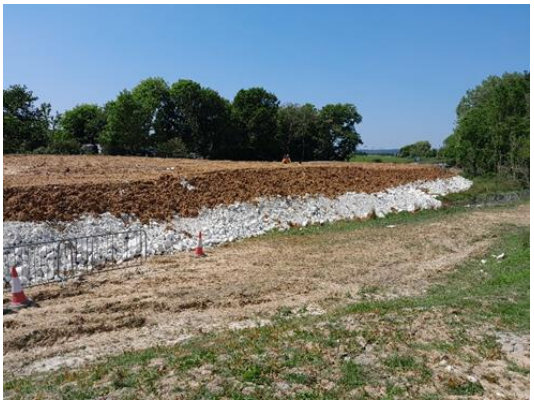
Date: 30/06/23

This is the latest monthly newsletter updating you on progress made in the construction of the Lyminster Bypass. We hope you find it useful, but please contact us if there is anything you would like more information on or would like to give us any feedback.

North of the Ancient Hedgerow

Following on from last month's newsletter, in this area we have continued to carry out daily surveys of settlement and water pressure under the embankment. The embankment is the mount of raised soil which we built the new road on. In the Northern area this has been overfilled, or surcharged, to provide additional pressure on the existing soil below to accelerate any settlement.

This area used to be a 6m deep tidal channel centuries ago and has silted up over time with some rather poor quality silty soil. The monitoring we undertake gives us an insight into the water pressure in the silty soil and the amount of settlement at the top. Once these reach the previously set parameters the area has settled sufficiently, and we can continue working in the area.

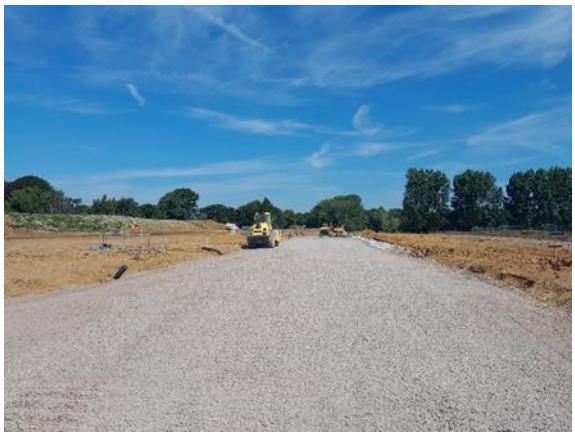


Ancient Hedgerow to Bridleway

We have now completed the construction of the pond including the topsoiling and headwalls installation. The pond will store the rain that flows of the road and act as a buffer prior to not increase flooding in the area. Street light ducting has also been installed in this area. The electrical equipment used on the scheme (streetlighting, bollards, push buttons etc) are all fed using below ground ducting (plastic pipes). These are below the footpaths and as such installed prior to commencing the footpath. By placing the cables in ducting it makes maintenance and replacement a lot easier in the future.

We have dug out the alignment of the new road in this section to formation. Formation, the level to which we remove existing soil, is covered using a geotextile material and stone for the road placed

on top. This stone, or subbase, is placed and compacted in layers and will be topped off with asphalt. please see photo below.



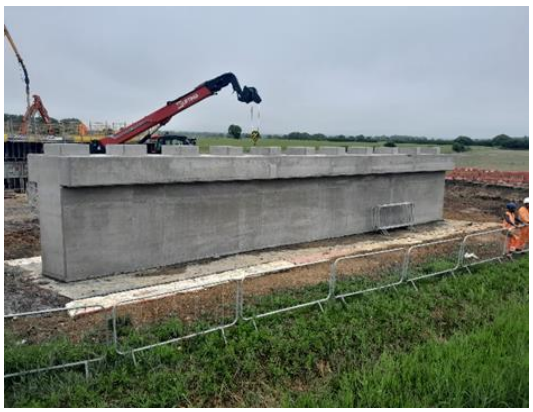
Bridleway to Black Ditch

We are currently building the piers that hold the viaduct beams. The steel fixers are continuing to build up the piers, and when they are completed, the formwork is put up. Forwmowork is the mould in which we pour the concrete. Once we have placed all the formwork and ensured it is correct the concrete can be poured using concrete pumps. we are currently undertaking one or two pours every week.

The placement of stone behind the northern abutment has been completed this month. This is to act as the base of the embankment which will eventually be built there.

We have completed the excavation of a swale that will run into Black Ditch. The swale is a ditch designed to take the rainwater runoff from the road. It has a series of dams/weirs to slow the water down to ensure that the rainwater is slowed down and does not increase the risk of flooding. Over time this swale will look like a natural ditch.

We have continued to lay stone for an access track which will run parallel to the road when built. This provides access to the farmer and for maintenance of the bridge.



South of Black Ditch

In this section, we have been repairing a section of the bank of black ditch, which was worn away by animals grazing in the stream.

Local employment

It is extremely important to us that the majority of our workforce on this project is from the local area. Recruiting locally to help employment and the social value in the area, is key to Jackson Civil Engineering.

One of our engineers is an apprentice who is working with us alongside studying at Brighton University. She has been with Jackson for the last 2 years and is heading into her 3rd year of studying and lives in Sussex. We also provide valuable experience to two work placement students, one from Sussex and one from Surrey, to spend a year out of university and on site.

Next week, we have a student from a local school in the area, completing her work experience with Jackson Civil Engineering. She will be spending the week working closely with us, looking into different roles and gaining experience both on site and within the office at the Lyminster Bypass (North) project. This will give her the opportunity to have a better understanding of the industry before returning to school.

For further information about the scheme please visit the Lyminster Bypass North page on West Sussex County Council's website:

https://www.westsussex.gov.uk/roads-and-travel/roadworks-and-projects/road-projects/lyminster-bypass-north/

Should you have any specific scheme enquiries, please contact lyminsterbypass@jackson-civils.co.uk

A284 Lyminster Bypass (North) – Progress Update

Date: 04/08/23

This is the latest monthly newsletter updating you on progress made in the construction of the Lyminster Bypass. We hope you find it useful, but please contact us if there is anything you would like more information on or would like to give us any feedback.

North of the Ancient Hedgerow

Following on from last month's newsletter, in this area we have continued to carry out daily surveys of settlement and water pressure under the embankment. Whilst the settlement values are reducing, the area is still settling. Therefore, we have not removed any of the surcharged material this month.

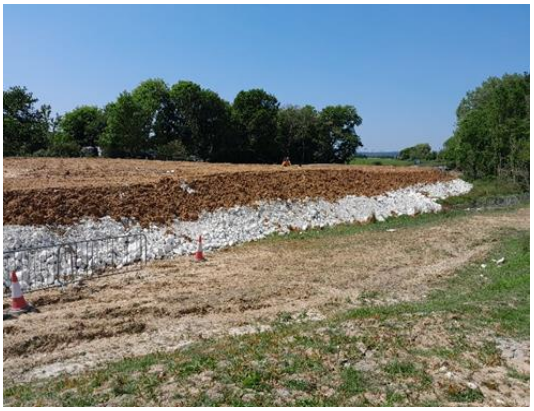


Image 1: Chalk embankment being surcharged

Ancient Hedgerow to Bridleway

We have now completed placing subbase stone (type 1) in this area of the works. The subbase is the stone placed on top of the formation on which the asphalt is then laid. This section is 250 metres and includes the bell mouth for the new T junction. Following last month, the streetlight ducting has been installed in this area. This month we have been installing road crossings for the streetlight and traffic signal ducts. We have also been installing gullies and finishing last bits of drainage in this section. Gullies are made up of a metal grid at the road level (usually next to the kerb) and a pot below where the water gathers. They have an outlet that connects to the drainage pipes to ensure rainwater is moved from the road to a nearby pond / swale / ditch. To finish off the section we have placed the kerbs and channels. Next month this section will see two layers of asphalt being placed.

Image 2: Kerbing along northbound carriageway

Image 3: Duct crossing beneath the road

Bridleway to Black Ditch

We are currently building the piers that hold the viaduct beams. The steel fixers are continuing to build up the piers, and when they are completed, the formwork is put up. The steel fixers place the reinforcement steel prior to installing formwork. Formwork is the mould in which we pour the concrete. All the piers North of Black Ditch have now been fully poured, apart from the Northern Abutment (the end pier that holds the structure).

The base and bearing plinths have been poured leaving the back wall only. Bearing plinths are the square concrete bases on which the bridge will rest. Form work is being put up for this at the moment. The back wall is the same level as the concrete for the bridge deck. After that the wing walls are poured and the embankment construction behind the bridge can commence.

A bit more work was done on the farm access tracks and the drainage swale (a type of ditch). Additionally, the maintenance platform between the piers was commenced and the first pier scaffolded ready for viaduct beam installation. The beams are the horizontal structural supports on which the bridge deck will built. The maintenance platform is for future inspections of the viaduct. These are done to ensure the viaduct performs as expected and if any issues are found WSCC can correct them prior to it creating hazards for road users.

Image 4: Formwork surrounding the north abutment

Image 5: Pier 10

South of Black Ditch

We have been continuing to put form work up for the bridge piers which have now been completed. The only thing remaining to be poured on the south side is the Southern abutment. This will require five separate pours.

We have also completed the outfall into the black ditch for the road drainage and backfilled around the piers. The road drainage includes gullies and the underground pipe system that gathers the rainwater from the road and transports it to the swales and ponds. A temporary stone maintenance platform is also in place between most piers and scaffold erected on two of them. This scaffold will be used to erect the beams.

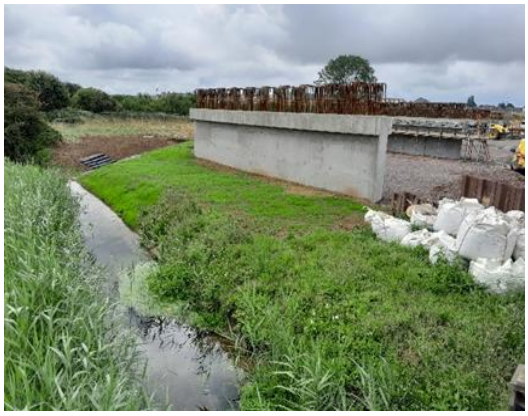


Image 6: View of piers south of Black Ditch

Image 7: Area between piers tidied and scaffolding put up

Community project

At the Lyminster project, the Jackson team have been liaising with Carol Hatton (Parish Councillor) the past few months, to provide the community of Lyminster with a new bench in Church Lane, Lyminster.

The old bench was starting the become frail and breaking in certain places. Many members of the community use the bench and with it being outside the church, it gets many visitors, especially in the summer. Jackson installed the new bench on Tuesday 27th June 2023.

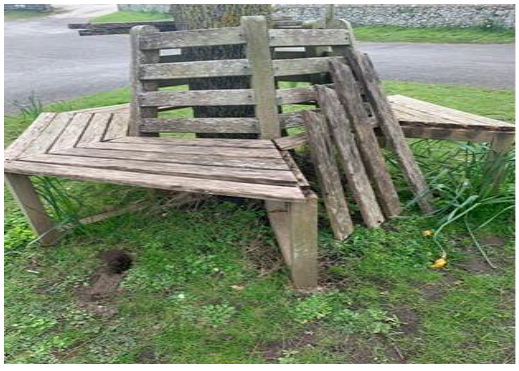


Image 8 – The old bench in Church Lane

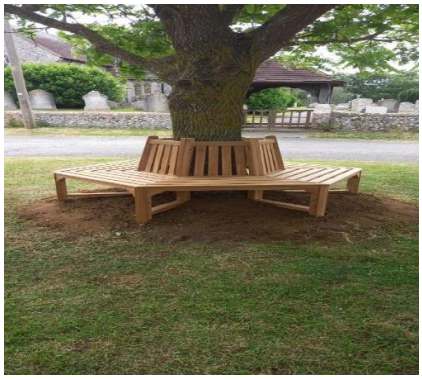


Image 9 – The newly installed bench

For further information about the scheme please visit the Lyminster Bypass North page on West Sussex County Council's website:

https://www.westsussex.gov.uk/roads-and-travel/roadworks-and-projects/road-projects/lyminster-bypass-north/

Should you have any specific scheme enquiries, please contact lyminsterbypass@jackson-civils.co.uk

A284 Lyminster Bypass (North) – Progress Update

Date: 29/08/23

This is the latest monthly newsletter updating you on progress made in the construction of the Lyminster Bypass. We hope you find it useful, but please contact us if there is anything you would like more information on or would like to give us any feedback.

North of the Ancient Hedgerow

Following on from last month's newsletter, the settlement of the embankment is not at a suitable level yet, we are increasing the weight over the central part of the surcharge area. Material has been taken off the front of the surcharge and placed in the middle to build up the level by a further metre. Manhole rings are being used to protect the settlement points so that surveys can resume once the work has been completed.

Image 1: Material being removed from the front of the surcharged to be placed further back.

Ancient Hedgerow to Bridleway

This month we have completed laying kerbs from the bridleway to ancient hedgerow, this distance was around 250m approximately. We trimmed the subbase to within the level tolerances. The subbase is the stone placed underneath the asphalt. This stone is placed thicker then required initially. Once we are ready to place the asphalt we then trim to the thickness to it's design level. Once the Type1 subbase is trimmed the levels are suitable for placement of asphalt. We also tested the strength of this layer at intervals along the full length of the road. We test the strength using a large digger underneath which we place a steel plate. A hydraulic jack is then used to push the plate in to the stone using the digger as a counterweight. The amount the plate is pushed in to the stone is then correlated to the strength of the subbase layer.

One of our supply chain partners, Aggregate Industries, have been at our site laying the base and binder course of surfacing along this area. Asphalt surfacing is made up of several layers which each have their own characteristics. We have placed two base layers, which is the lower layer. The binder layer is the middle layer and the surface course is the layer used to drive on. We have gone up to binder level to prevent any damage to the final layer and will not complete the surface course until closer to the road opening time.

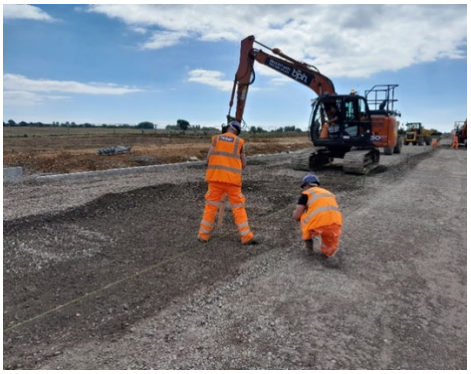


Image 2: Trimming the type 1 to level

Image 3: Laying base course of surfacing

Bridleway to Black Ditch

This month we have been focusing on putting up scaffolding around all the piers, which then allowed access when landing the bridge beams. The bridge beams are the long concrete sticks that the bridge is formed off. The piers are the concrete elements where the beams rest on.

Prior to arrival of the crane, we constructed crane mats to allow a stable base for the proposed crane to sit on whilst lifting the beams onto the bridge. Upon arrival of the 700 ton crane it was setup in its first position, from where it then landed the first beams between pier 8 and 9.

The 700t mobile crane has four additional lorries to carry all the counterweights and accessories it requires. The crane and the ballast wagons are all in excess of the normal 44T maximum lorry weight and need special permits to travel on the road.

Similarly, the beam delivery wagons also require special permits to travel on the road. These are both longer and heavier than the maximum allowed for a standard lorry. The beams are made in Ireland and enter England via ferry near Liverpool. From Liverpool they travel with an escort down to Littlehampton. There are 121 beams, of which 22 are edge beams. Each edge beam is delivered separately on a lorry. The remaining 99 beams are being loaded three at a time, requiring 33 movements.

Image 4: Beams being lifted into position

Image 5: The beams in position

South of Black Ditch

Following on from the above section, in this area we have been putting up scaffolding around all the piers to allow access when landing the bridge beams. We also constructed crane mats to allow a stable base for the crane to sit on whilst lifting the beams onto the bridge.

We have completed the excavation of a pond that sits beside the bridge. The pond is designed to create both wet and dry areas to cater for a variety of plants and wildlife to blossom. The pond is fed with rainwater runoff from the new road and releases this into Black Ditch. This activity has been completed because the access will be restricted whilst beams are being lifted onto the piers south of Black Ditch.

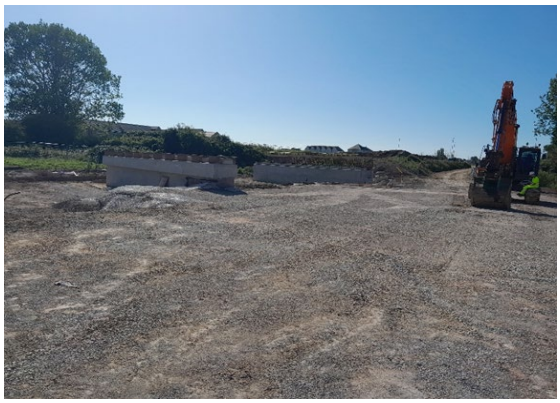


Image 6: Crane mat construction

Image 7: Southern Pond

Site event – Wednesday 13th September

We have planned a "visitors morning" on site for the wider public to visit and see the beam installa□on. This will be taking place on Wednesday 13th September, arrival at 9am, finishing around 11am. If you are interested in coming along to this event, please sent a confirma□on email to **lyminsterbypass@jackson-civils.co.uk.**

Additional information

Personnel wise we are saying goodbye to two of our industrial placement students from the wider Sussex area. They have completed their year on site and are returning to their respective universities next year. One of them is being replaced by a new industrial placement student from the West Sussex area. She lives in Worthing and will be with us for the coming year.

We are also doing a presentation for Polling Parish Council on the 30th of August in the evening. The presentation will highlight the scheme in general and the interface of the works with Polling Parish Council. At the end of the presentation there will be an opportunity to ask further questions about the scheme.

For further information about the scheme please visit the Lyminster Bypass North page on West Sussex County Council's website:

https://www.westsussex.gov.uk/roads-and-travel/roadworks-and-projects/road-projects/lyminster-bypass-north/

Should you have any specific scheme enquiries, please contact lyminsterbypass@jackson-civils.co.uk