A284 Lyminster Bypass (North) – Progress Update

Date: 03/10/23

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 if you would like to give us any feedback.

Traffic Management – Delays Expected

Please be aware that from Wednesday 4th October, BT Openreach will be commencing works on Lyminster Road. These are essential works required for the delivery of Lyminster Bypass. Unfortunately, delays are likely, but in order to minimise the impact on local residents and commuters, the works are being progressed as fast as possible and as such include night works. There will be 2-way traffic lights present on Lyminster Road until 10th November. This will be approximately 300 meters north of the site entrance https://what3words.com/grills.stepping.stowing

Below are the scheduled dates for the traffic management:

- From Wednesday 4th October until 17th October – 2-way traffic lights will be present from 9:30am to 3:30pm
- From Monday 9th October – 20th October on weeknights 2-way traffic lights will be in place from 7:00pm to 6:00am
- From Monday 23rd October until Friday 10th November – 2-way traffic lights will be present from 9:30am to 3:30pm

North of the Ancient Hedgerow

Following on from last month's newsletter, the settlement of the embankment is being continuously monitored, although slowing, it is not yet at a suitable level to start building on. The added soil (surcharge), currently being used to compact the soil underneath, is planned to be taken off this year. We will then reassess when the next section of the road can be built up. Chalk at the base of the embankment has been taken for Waste Acceptance Criteria testing to determine where it will be sent after use.

Image 2 Embankment with surcharge.

Image 1 Chalk sample taken for WAC testing.

Ancient Hedgerow to Bridleway

At the northern pond, tree pits have been placed to ensure that planted trees will have nutrient soil to grow in and an access track has been made for drainage maintenance. For the fully tarmacked 250m stretch of road, gullies have been cut out, ensuring surface water drainage. 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. Our team at Jackson's have also used grass seed on our soil stockpiles, reducing the amount of dust released during the works.

Image 1 Access track for northern pond.

Image 2 Road gully without grating.

Bridleway to Black Ditch

Working through September's record-breaking heatwave, all bridge beams have now been successfully landed using the 700t mobile crane. The 121 beams were transported to site from Ireland using 55 oversized, extra-long lorries.

Image 3 Swale for storm drainage.

Image 4 Beams in position.

South of Black Ditch

With a recent downfall of rain, the southern pond has been put to use, demonstrating its tiered design. Aquatic plant seeds will later be spread in the base of the pond to increase biodiversity.

Boundary fencing has been put up from southern end of the road to Black Ditch, keeping as much of the natural vegetation as possible. Gates will be placed throughout for access between fields.

Four Boreholes, each 10-15m deep, have been dug to assess the composition of the ground and Cone Penetration Testing to record the geotechnical engineering properties of the soil.

Image 7 Southern pond

Community Project

Back in June we installed a bench in Church Lane, as 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 during the summer. We installed the bench plaque on

26th September 2023, alongside parish councillor, Carol Hatton. This bench is complete, and we hope the community continue to enjoy this new structure in the area.

Visitors' day

We held a visitor's morning on 13th September, this was on site for the local residents and stakeholders to view the works and beam installation. We took attendees, to a designated viewing area where the beam installation could be observed safely and without the need for Personal Protective Equipment you normally require to be on a working site. At this location, our general foreman provided a full explanation of the ongoing works and the progress made so far. We then walked the length of the project, with time for a question & answer session at the end.

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/

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A284 Lyminster Bypass (North) – Progress Update

Date: 09/11/23

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 if you would like to give us any feedback.

Traffic Management – Delays Expected

As you may be aware from Wednesday 4th October, BT Openreach have been working on Lyminster Road. These works are nearly complete and are essential for the delivery of Lyminster Bypass. There will be 2-way traffic lights present on Lyminster Road until 17th November, from 9am to 3:30pm.

North of the Ancient Hedgerow

The settlement of the surcharged area has been assessed and has been given the all clear to remove. We have separated the soil into what is good quality to build a road on and that which will not be suitable. The unsuitable soil has been moved off site and the good quality soil has been put into stockpiles to keep everything organised. Due to the amount of rain we are having to make sure we stop works whenever the soil is to wet.

Image 1 Track mats placed running up to surcharge

Image 2 Waterlogged surcharge

Ancient Hedgerow to Bridleway

The base of the footpath which runs alongside the road has been marked out for preparation of surfacing. There has also been a thorough inspection into how the Lyminster bypass will link into the A284, building up a 3D image to understand the amount of materials that will be needed.

Image 3 Total station used to build up image of how bypass will connect with existing road, A284.

Bridleway to Black Ditch

Boundary fencing has been set running along Ancient Hedgerow to Black Ditch, with a specified section for badger fencing. We also have two designated badger crossings which run underneath the road, aiming to divert the badgers under the road to the other side of the fence.

Reinforcement steel fixing and concrete shuttering continues on the bridge. We are now putting the reinforcement for the diaphragms in. The diaphragms are members that resists lateral forces and transfers the loads to the supports. They are located at the end of the beams which connect to the piers.

Image 4 Boundary fencing

Image 5 Steel rebar continuing to be fixed

South of Black Ditch

Four Reno mattresses have been made and filled with 6G gabion stone. The mattresses are made of wire mesh and filled with the stone which is between 100 and 200mm big. This is used in the southern swale to prevent scouring of the swale base from drainage flow. With recent rainfall, both the swales are now working to ensure drainage into the river, Black Ditch.

Image 6 Gabion basket being made for Southern swale

School project

Jackson's Public Liaison Officer Shannon Acton-Brown and Becky Haslam from AOC Archaeology recently visited Lyminster Primary School on 10th October 2023.

The children handled some roman pottery and were shown photographs of a Bronze Age cremation urn, a Bronze Age tool, a Roman loom weight and other Bronze Age and Roman finds from the Lyminster Bypass site. They also helped to construct a timeline to better understand how far back in time the Roman and Bronze Age periods were. We also discussed what archaeologists do and why, how archaeologists know where to dig, and how they know how old things are.

Image 7 School Visit

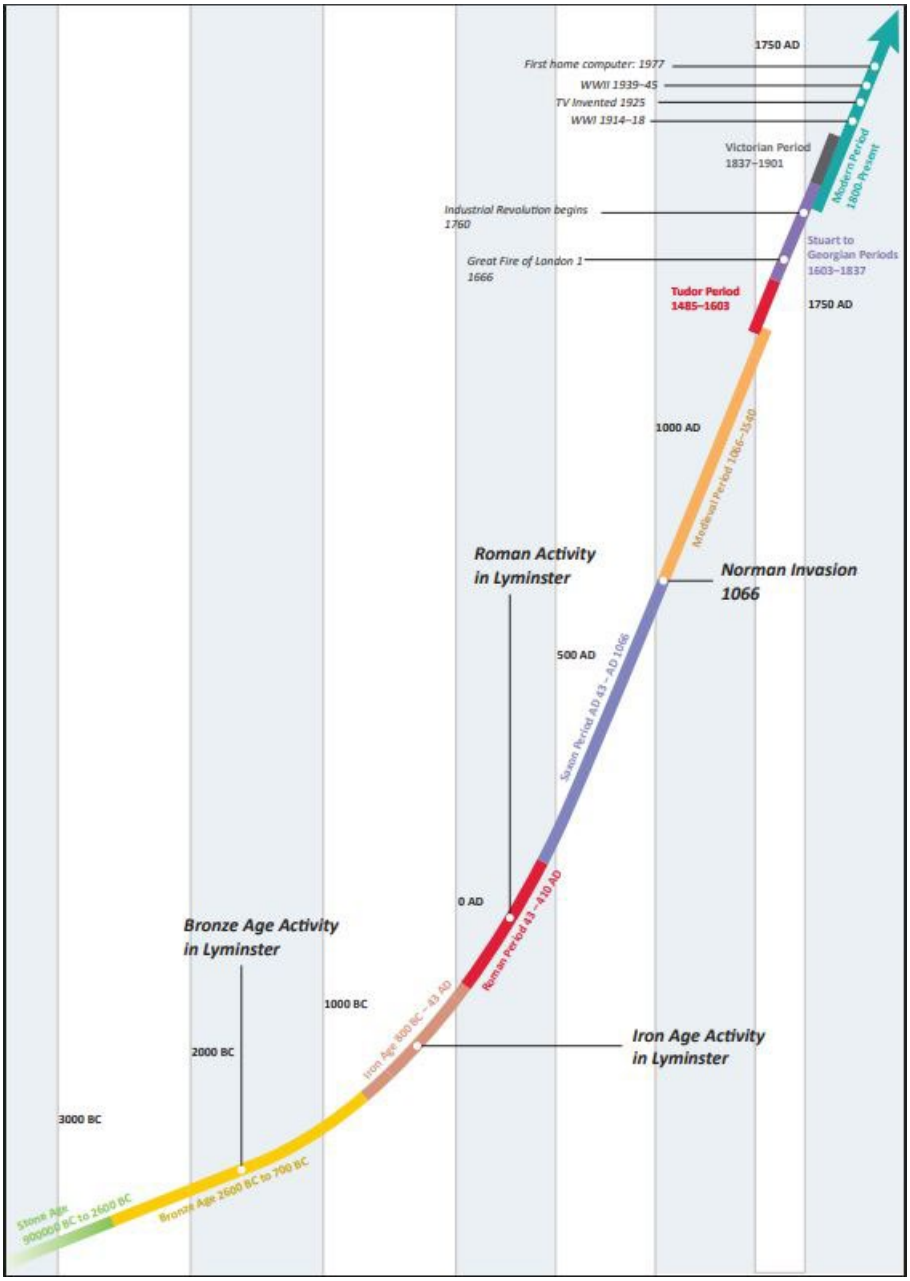

Image 8 Archaeological Timeline

A video summarising the archaeological investigations undertaken as part of the Lyminster Bypass (North) construction works around Black Ditch River. Can be viewed here

[Lyminster Bypass Archaeology Film]

(To watch the video with subtitles click on settings and select)

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

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A284 Lyminster Bypass (North) – Progress Update

Date: 07/12/2023

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 if you would like to give us any feedback.

North of Ancient Hedgerow

Now with all of the surcharge removed, drainage works have continued. Drainage pipes have been laid underground connecting each manhole. Now being in the 'rainy season', we are working hard against vast amounts of ground water flow filling into the trenches we dig. This water is then pumped back into the stream so our work can continue.

Work has also been done on the A284, inserting two drainage pipes running across the road. This has been done in preparation for work starting on the new culvert in Brookfield Stream. The water running through the existing culvert will be temporarily diverted along these pipes into the other side of the stream, this is known as over pumping.

Image 1 Drainage pipes and pumping out ground water.

Image 2 Manhole for drainage.

Image 3 Drainage for culvert into Brookfield stream.

Ancient Hedgerow to Bridleway

The footpath has been ‘surcharged’ with aggregates, this helps with compaction to enhance its strength. It will then be tarmacked and completed.

Drainage work proceeds for the northern pond, a pipe has been laid coming out of the northern pond, draining the water into the manhole, before continuing through the drainage system until finally reaching Brookfield stream.

Image 4 Manhole draining northern pond.

Bridleway to Black Ditch

Although increasing every day, we have now fully completed around one third of reinforcement steel work on the bridge, and the first concrete pours. We started in the middle of the bridge and are working our way outward. Care has been taken to seal the base of the deck, ensuring it is watertight to protect the environment. This shields Black Ditch from any concrete grout loss or water leaks.

The concrete for the northern abutment back wall has been poured and the wing wall rebar has been completed, ready for their pours.

Image 5 Completed rebar.

Image 6 Final parapet ready for concrete.

Image 7 North abutment concrete pour.

South of Black Ditch

Steel reinforcement bar work carries on at the bridge both North and South of black ditch. Steel reinforcement work has been focused on the parapet walls and diaphragms. The diaphragms are the spaces between the larger horizontal beams, making up the deck, and are constructed of concrete with steel reinforcement bars. They provide the connection between the bridge deck and the piers below. There have also been the first two diaphragm concrete pours. Each load of concrete delivered is tested for its consistency using a 'slump test' as well as taking samples used to check the strength. This ensures we have the desired strength and finish and the viaduct is safe for use.

The South abutment has also seen progress with the back wall shutters being placed, ready for placement of reinforcement teel prior to the concrete pour.

Image 8 Bridge progress facing North.

Image 9 Steel work on parapet wall.

Image 10 Diaphragm concrete pour.

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A284 Lyminster Bypass (North) – Progress Update

Date: 31/01/24

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 if you would like to give us any feedback.

North of Ancient Hedgerow

Over pumping has begun so the water in Brookfield stream, East of the A284, is temporarily diverted along pipes under the road back into the stream, West of the A284. In preparation for this, sheet piles were put in a square formation, creating a cofferdam, to block off the water from flowing into the culvert and to allow the rate of the flow to be controlled, ensuring the pumps will keep the water level of the stream constant. A fish rescue team arrived on site to use the technique "electrofishing" to move what was found in the sectioned off part of the stream, to a safe location downstream. An eel, a baby pike and a few nine-spine stickleback fish were found and moved downstream.

Soil mixing has also begun, North of the Brookfield stream. This technique improves ground conditions via mixing cement into the ground in a 5m by 5m square. The process will take approximately 6 weeks and will improve the strength of the soil sufficiently to construct to build the new road on top of it.

Image 1 Cofferdam with over pumping.

Image 2 location of new culvert.

Ancient Hedgerow to Bridleway

As part of our final design, we have a Pegasus crossing which involves an equestrian, agricultural plant, pedestrian and cyclist crossing. For this crossing, we have installed a total of 8 streetlights and traffic light signal boxes/sockets and have connected street lighting ducts. Once the surfacing is completed we will install the poles for the traffic lights and streetlighting in these sockets and pull the electric cables through the ducting network.

Our footpath is starting to be built up now with us completing another phase, this included laying 175 metres of tarmac base course.

Image 3 Street lighting ducts into box.

Image 4 Footpath with tarmac base course

Bridleway to Black Ditch

We have now poured 30% of the concrete deck, the bypass consists of two abutments and 10 piers, with January's focus on pouring concrete for pier 8 and 9 as well as the North abutment wing wall. The wing walls for both the North and South abutment are there to provide structural support for the viaduct, the abutments are the ends of the viaduct.

This month we have completed the North abutment's steel reinforcement. In total we have now completed 90% of the steel works for the viaduct and plan to have this fully complete in the next couple of months.

Image 5 North abutment reinforcement.

Image 6 Steel work progress

South of Black Ditch

The concrete pours for pier 3 continue, with constant testing and recording. This month we have completed the South abutment's steel reinforcement and the wingwall shutters (wooden moulds to keep the concrete in place) have been set up, ready for its concrete pour.

As part of the design, we have positioned bolt clusters along the edge (parapet) of the viaduct, allowing the safety fencing (VRS) on the bridge to be installed. The VRS is used to absorb and decrease the force of a crashing vehicle.

Image 7 Bolt cluster for parapet.

Image 8 View of viaduct facing North.

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A284 Lyminster Bypass (North) – February Progress Update

Date: 06/03/24

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.

About a month and a half ago we have filled in Brookfield Stream at the crossing with the existing A284. To keep the water flowing through this section we have commenced overpumping the water from the East to the West of the A284. Unfortunately, a combination of excessive rain and a mechanical failure have led to the road being flooded for a period of time last month.

To prevent this from reoccurring we have installed a different pumping system and installed additional higher level gravity overflows. The road is now clear again and the fields East of the A284 are no longer flooded.

North of Ancient Hedgerow

We have dug out our Northern swale which connects to the drainage of the new Lyminster Bypass and outfalls into Brookfield stream. This acts as a catchment for water, slowing down the rate it goes into the stream. With the drastic recent increase in rainfall, our swale has worked as an extra water store.

Due to the area being a flood plain and a having a high-water table we continuously fight against ground water. To ensure drainage works can continue, any hole that is dug below the water level we use a pump to transfer the ground water back into the river. We have done this with our manhole installation by using a manhole trench box with a slightly deeper area where the pump can sit. This allows us to lay our drainage pipes and bed the manhole in concrete keeping it in place.

The soil mixing continues, churning cement and GGBS into the ground, North of Brookfield stream. This process strengthens the ground in preparation for the rest of the road to be built and the installation of the new, larger culvert. Due to the increased capacity of new culvert, it will allow Brookfield stream to flow at a higher rate underneath the road.

Image 1 Newly dug swale.

Image 2 Water pump in manhole trench box.

Image 3 Continued drainage works.

Ancient Hedgerow to Bridleway

This month we have focused on getting the foundations of the pegasus crossing fully completed. The Pegasus crossing is where the existing bridleway crosses the new road. It is designed to provide three separate crossings for pedestrian, equestrian and agricultural plant with a single traffic light for traffic on the carriageway. To ensure the bridleway is built with the designed curve, we use a surveying device called a total station. This measures angles and distances and is equipped with a computer programmed to allow us to set out the design to the nearest millimetre. The design was marked out with metal pins which were hammered into the chalk. Wooden edgings then got laid following this curvature and Type 1 aggregate was placed on top.

Image 4 Pegasus crossing.

Image 5 Bridleway.

Bridleway to Black Ditch

As we are coming to the end of the concrete pours for the viaduct, we have started to 'bridge the gap' between the viaduct and our newly built road. The embankment near the bridge is currently being constructed to allow access up to the deck. To reduce settlement, the type of material used is

placed in a step-down pattern away from the bridge, ensuring a stable ground. It is also being built up in layers, allowing for full compaction.

'Back of wall' drainage on the North Abutment is ongoing. The excess runoff from the road will get transferred down into filter drains and eventually will run off into the swale. The filter drains and the swale provide natural filtration to the runoff from the road, ensuring the water is clean when it flows into Brookfield Stream.

Image 6 North abutment.

Image 7 Concrete deck on viaduct.

South of Black Ditch

For every concrete pour that goes into our bridge piers, we stop the concrete from flowing into areas we do not want it to by using timber board shutters. These are unique to the gaps between each beam and ensure the concrete stays in place and allows enough concrete cover for the steel reinforcement. The shutters get propped up with wooden supports, meaning although it is a lengthy process, the craft of the carpenters ensure a smooth concrete finish on each pier.

As we will finish our viaduct's concrete pouring by the end of next month, the structure's team will be focusing on installing the new culvert.

Image 8 Shutters ready for instalment.

Image 9 Fresh concrete pour.

School visits

Our senior Public Liaison Officer, Shannon Acton-Brown attend a local secondary school to assist year 10's in their annual mock interview event on Tuesday 27th February 2024. This event is very beneficial for many reasons including boosting confidence on the approach to leaving education, learning new interview skills, engagement tools and learning from their interview feedback.

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

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