



NON-TECHNICAL SUMMARY

**AN APPLICATION FOR PLANNING PERMISSION FOR
A CLAY QUARRY AND CONSTRUCTION MATERIALS RECYCLING
FACILITY (CMRF) FOR CD&E WASTES INCLUDING THE USE OF AN
EXISTING ACCESS FROM LOXWOOD ROAD, THE EXTRACTION AND
EXPORTATION OF CLAY AND RESTORATION USING SUITABLE
RECOVERED MATERIALS FROM THE CMRF TO NATURE
CONSERVATION INTEREST INCLUDING WOODLAND,
WATERBODIES AND WETLAND HABITATS**

AT

**LAND WITHIN PALLINGHURST WOODS TO THE
EAST OF LOXWOOD IN WEST SUSSEX**



Report Reference: LCP/LOX/LX_20A/NTS

June 2021

6 Abbey Court, High Street, Newport, Shropshire, TF10 7BW

Introduction

Loxwood Clay Pits Limited (LCP) is controlled by one of the Danhash family that has owned 122 hectares (300 acres) of Pallinghurst Woods (part of the former Pallinghurst Estate), east of the village of Loxwood, Billingshurst, West Sussex, for the last 30 years.

LCP was incorporated in April 2017, with the intention of extracting clay from the periphery of Pallinghurst Woods on a small commercial scale, like the small-scale clay extraction and brick making activities that have previously taken place within the Pallinghurst Estate over 100 years ago. These activities are common in this area, such as the former Rudgwick clay pit and brick works located just 5 miles east of Pallinghurst Woods.

Subject to this development going ahead, LCP would then pursue a further project elsewhere in West Sussex, for the establishment of a small-scale hand produced brick works to supply bricks to the local market, that are of a type and style that is appropriate to the local character and built environment.

Pallinghurst Woods is situated low down in the Ludwick Low Weald clay vale landscape setting, within the Low Weald Hills of West Sussex. The geology is derived from Weald Clay formation, with clay shale, mudstone, discrete sandstone beds and superficial deposits.

The Weald clay formation is a main clay resource for brick making and is a related resource for traditional building materials including cement, concrete blocks and other building raw materials used in a wide variety of construction activities, including house building and flood alleviation schemes. There is a shortage of clay in West Sussex, with the brick works at West Hoathly and Pitsham respectively due to run out of clay in less than 10 years and 20 years' time. National planning policy requires each county to maintain at least 25 years supply for each brick works.

Based on the proposed rate of clay extraction, the clay available at Pallinghurst Woods will run out in approximately 30 years. Including the time required to excavate the first phase and to complete the restoration after the excavation has finished, the project will last for 33 years overall.

To provide for the continued output of clay during the 30-year period, LCP have identified that the proposed site in Pallinghurst Woods is suitable for brick making. In addition, the chemical and physical properties demonstrate that the clay could be used for producing cement, which could then be used for making concrete blocks, which are also used for house building. The clay could also be used for flood defence purposes.

The clay pit void will be restored using suitably inert materials derived from the processing of non-hazardous construction, demolition and excavation wastes (CD&E), processed inside a building located next to the clay pit. The waste processing activity will be permitted by the Environment Agency to separate the fines and, subject to the terms of an approved Waste Recovery Plan, use the fines that have been certified for use as suitably inert materials, for the restoration of the clay pit void. The other waste materials recovered from the construction and demolition waste will be transported off site for further use e.g., in aggregates. This related activity will commence in year 2 or 3 and cease activity after 33 years from commencement of the clay extraction.

The clay extraction will take place in cells, with each cell covering an area of c. 2,000m² with excavation of a cell in one year and restoration of that cell during the following one to two years. Therefore, at any stage, only 0.4 to 0.5 hectares of the total 6 hectares will be a work in progress clay pit. As the ground in each cell is restored to its previous level, that area will be initially sowed with grass seed and then replanted with trees. In addition,

a biodiversity plan will include further plantations and habitat development elsewhere throughout Pallinghurst Woods.

The proposed 8-hectare site for clay extraction and waste recycling in Pallinghurst Woods, will consist of 6 hectares for the proposed clay extraction, 0.15 hectares for the waste recycling building / onsite accommodation and 1.85 hectares for vehicle loading, access, and the perimeter landscaped cordon of trees, plants and bushes. The north of the site is bordered by foot path 792_1.

Therefore, planning permission is being sought by LCP for a quarry to extract and export clay following which the land will be progressively restored to woodland and nature conservation interest including water bodies and wetland habitats using recovered and suitably inert materials. It is proposed to use the existing Pallinghurst Woods access route to the proposed development site from the entrance in the existing layby on Loxwood Road. The woodland access route through Pallinghurst Woods crosses bridleway 3240, runs parallel to footpath 795 and intercepts footpath 792. An application will be submitted to West Sussex County Council to re-route footpath 792_1. For safety reasons, Footpath 795 should be separated from the private right of way, by a fence. The area that is the subject of the application for planning permission is max. 7 hectares for the main development site plus a further 1 hectare corridor for the woodland access route to Loxwood Road.

This document summarises in non-technical language the information in the Environmental Statement which accompanies the application for planning permission which has been submitted to West Sussex County Council.

Site location and description

The site is located at National Grid Reference TQ 05090 32831, in a rural wooded Low Weald clay vale landscape setting, within the Low Weald Hills, on land north of Loxwood Road. It comprises an area of 8 hectares of woodland, 6 hectares of which would be progressively excavated for clay, then backfilled and restored.

The proposed lorry access route from Loxwood road layby northwards, would follow the route of the existing woodland ride for timber extraction, which is an access track for lorries, from Loxwood Road via Caddick's Copse, to the development site, approximately 1.6km long. This access road will be regularly maintained with DoT Type 1 aka MoT Type 1 low dust 40mm granite limestone, basalt or gritstone in conjunction with a 3-D containment system that includes edge restraints.

A 100m stretch of this private access road passes through the middle of a field that is owned by a neighbouring landowner but the Danhash family have a private right of way to use this 100m stretch at anytime for any purpose with or without vehicles.

The site is approximately 1.6 km to the northeast of Loxwood, 1.5 km southeast of Alfold, 1.2 km east of Alfold Bars, 2.7 km west of Bucks Green, 1.5 km west of Tisman's Common, 3 km west of Rudgwick, and 6.4 km south of Cranleigh. The land is approximately 2 km north of the Wey and Arun Canal, which flows westwards, south of the site, through the village of Loxwood. The site lies due south of the County Boundary between Sussex and Surrey and of the Sussex Border Path. The County boundary thus lies quite close to the north of the site. The A281 is 1.3km north of the site.

The Sussex Border path meets the Downs Link long distance footpath (223) at Southwood, to northwest of the village of Rudgwick, which is approximately 3 km to the north east of the site. Access to the site will be from the entrance to Pallinghurst Woods on Loxwood Road, which is to the south of the site. The vehicles will predominantly travel east- west

along the eastern section of Loxwood road, to the A281 Horsham-Guildford road and it is proposed that a lorry routing agreement is put in place.

The land at Pallinghurst Woods was formerly part of a historic small-scale brick making enterprise in the 1800s to the early 1900s. To the east, the village of Rudgwick has Rudgwick Brickworks, with a long history of clay extraction and brick making activities, from World War One to 2012. In the 1960's 250,000 bricks were made each week, (Rudgwick Preservation Society website).

There are 5 foot paths that pass through Pallinghurst Woods but only one of these is close to the proposed development site, i.e. foot path 792_1. Foot path 795 runs west / east just inside the southern boundary of Pallinghurst Woods and foot path 792 runs south / north crossing path 795 before joining bridleway 801 at the northern boundary of Pallinghurst Woods. Footpath 792 then becomes foot path 792_1 in a north-westerly direction, parallel to the boundary of the proposed development site, before joining the Sussex Border Path beyond the north western corner of Pallinghurst Woods. Foot path 797 runs from Old Songhurst Farm before joining foot path 792_1 at the north western corner of the development site. Bridleway 801 continues north from Pallinghurst Woods to join the Sussex Border Path north of Hope Rough. Foot path 3260 runs for a short distance from the west, before joining path 792 at the southern end of Pallinghurst Woods. Bridleway 3240 runs north from the layby on Loxwood Road to join bridleway 817, which then merges into bridleway 801 beyond the northern boundary of Pallinghurst Woods.

There are isolated farms to the west of the site including Old Songhurst Farm, which is set amidst a mosaic of farmland. The woodland to the west of the site forms the eastern boundary of the land at Old Songhurst Farm. Merry hills and Songhurst farm are located to the south west of the site. To the east of Pallinghurst Woods is Barnsfold Farm House, and Barnsfold, dotted along Barnsfold Lane towards Tisman's Common. Barnfold Farm is located on Loxwood Road beyond the southern boundary of Pallinghurst Woods, with Pephurst Farm further east on the south side of Loxwood Road and the house Ivyhurst just off the layby.

No Sites of Special Scientific Interest (SSSI) are located within a 2km radius of the main development site; however, it does fall within a SSSI Impact Risk Zone for Chiddingfold Forest SSSI 2.75km north-west and The Mens SSSI 6.7km south. No locally designated non-statutory sites are located within a 1km radius of the development site.

Pallinghurst Woods is a mixture of traditional orchard, deciduous woodland and ancient woodland but the boundary of the development site is at least 15 metres from the edge of the nearest ancient woodland and clay extraction will take place at least 70 metres away. The vast majority of the proposed development site is scrub or recently planted trees with c. 25% occupied by older deciduous broadleaf woodland.

The site is not located within a source protection zone and there are no groundwater source protection zones within 1km of the development site. The surrounding area of Pallinghurst Woods is characterised by surface water drains and channels through the woodland. Whilst the major forest tracks have shallow drainage channels along the boundaries, there are no apparent discharge points from the site other than a culvert beneath the road to the south of the site and a second culvert on the western boundary. This western culvert discharges into a steep sided narrow man-made flat-bottomed channel.

Based on the Environment Agency's indicative Flood Map, the Site is located within Flood Zone 1 and, therefore, classified as a low risk of flooding according to the National Planning Policy Guidance, where the annual probability of flooding is considered to be < 1 in 1000. The Site does not lie within close proximity to any rivers or other controlled surface waters.

The proposals

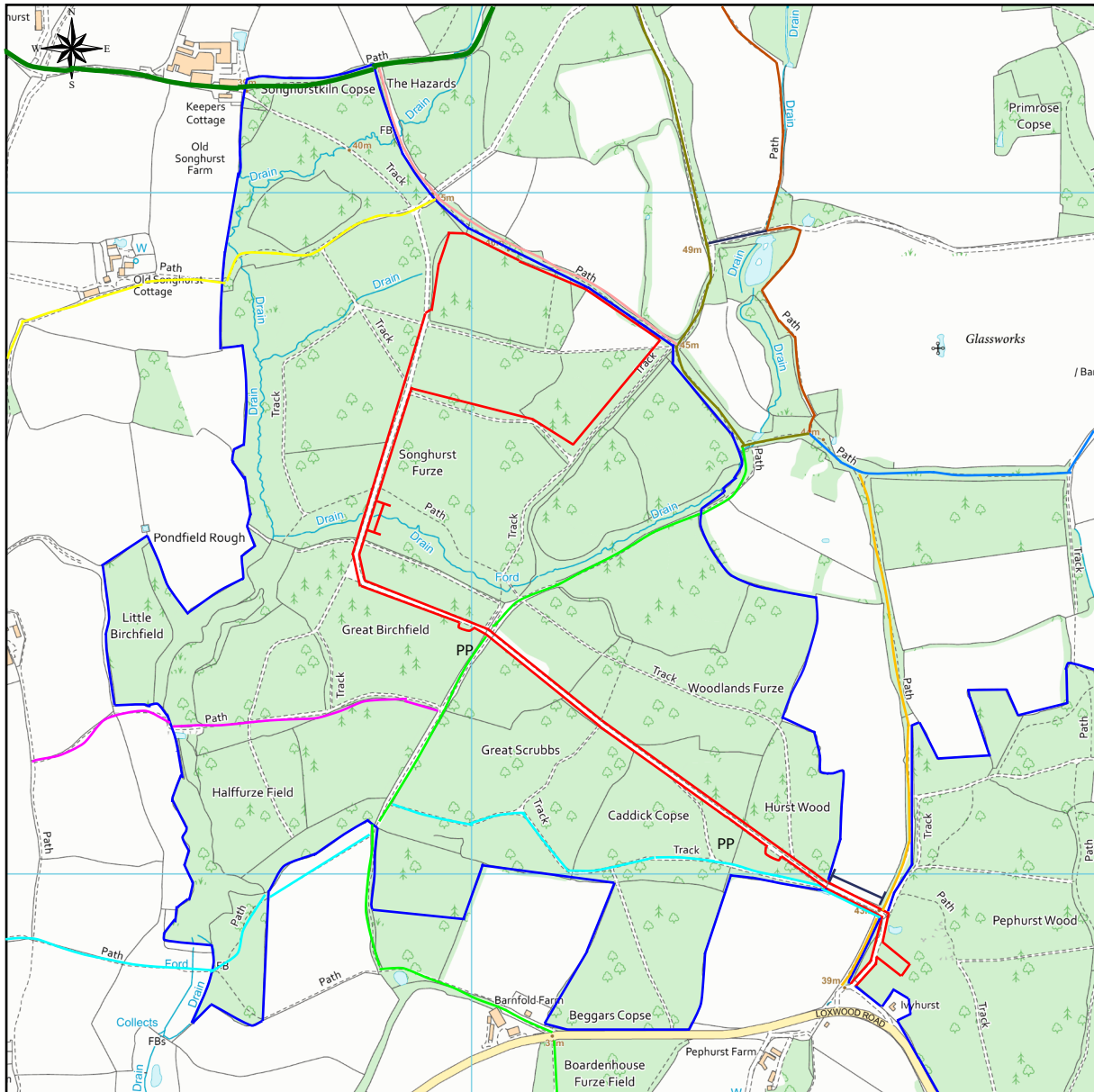
The main elements of the proposed development are:

- Extraction of clay shale from the 6 hectares of land within the 8-hectare development site, located along the northern periphery of Pallinghurst Woods. The proposed operations will generate approximately 375,000 tonnes of clay suitable for brick making, cement, concrete blocks and flood defence. This will be supplied over a period of 30 years.
- Clay will be extracted in phases with the middle of the northern part of the site extracted first. The existing screening banks will be retained along with the tree screening along the western and northern boundaries, to minimise the visual impacts of the proposed extraction operations.
- The site will be restored in phases using suitably inert materials extracted from the adjacent construction materials recycling facility (CMRF). It is estimated that circa 200,000m³ of suitably inert materials will be required for restoration and that the restoration operations will be completed within 3 years of the completion of the mineral extraction.
- The CMRF will be inside a building measuring 40m x 35m and 8.5m high. This will be permitted to receive up to 25,000 tonnes per annum of CD&E wastes with approx. half of this being used for the restoration and the other half being a variety of recyclable materials for use in accordance with the Government's Circular Economy Policy and Waste & Resources Strategy.
- Access to LCP's proposed site is from the existing access to Pallinghurst Woods on Loxwood Road. Vehicles will travel to/ from the site via this entrance using the established woodland access road. Vehicles leaving the site will pass through a wheel wash before accessing Loxwood Road.
- It is proposed that up to 100m of path 795 is fenced where it runs parallel to the woodland access road / private right of way and path 792_1 is temporarily rerouted / partially closed.
- The restoration will include a small fishing pond available for public use when the mineral extraction has finished, which will be accessible from a new foot path.
- The restoration design is based on the principle of progressive restoration to agriculture, water bodies, wetland habitats, grassland, woodland and hedgerows and will provide biodiversity at the site and in Pallinghurst Woods.

FIGURE NTS1 SHOWN NEXT PAGE – PLANNING BOUNDARY AND PROWS

















Grid Reference (centre of plan) TQ 05041 32382

LOXWOOD CLAY PITS LTD - PALLINGHURST WOODS



KEY / NOTES

NOT TO SCALE

- | | | | | | |
|---|-------------------------------------|---|--------------------------------------|---|------------------------------------|
|  | The planning application boundary |  | Boundary of land in common ownership |  | Private Right of Way |
|  | Approximate route of Footpath 797 |  | Approximate route of Footpath 3239 |  | PP - HGV passing place |
|  | Approximate route of Footpath 3260 |  | Approximate route of Bridleway 3240 |  | New Bridge over land drain |
|  | Approximate route of Footpath 792 |  | Approximate route of Bridleway 817 |  | Approximate route of Bridleway 801 |
|  | Approximate route of Footpath 792_1 |  | Approximate route of Bridleway 801 |  | Sussex Border Path |
|  | Approximate route of Footpath 795 | | | | |

Note: Footpath 792_1 to be diverted from northern edge of application boundary, Footpath 795 fenced off alongside Private Right of Way

FIGURE NTS1 - The site and surrounding area

Need for the proposals

There is a county need to maintain at least 25 years supply of clay for each operational brick works. Currently, only 3 out of the 5 bricks works in West Sussex meet this requirement. Neighbouring counties are required to co-operate¹, by sharing mineral resources, but in practice, this has not happened with the counties surrounding West Sussex.

The Government's National Planning Policy Framework (NPPF), which was issued after the publication of West Sussex Joint Minerals Local Plan, goes much further than the local plan. The NPPF states that mineral planning authorities should plan for a steady and adequate supply of industrial minerals by taking account of the need for the provision of brick clay from a number of different sources to enable appropriate blends to be made.

Furthermore, the NPPF states that more than 25 years of clay supply is required for use as a primary or secondary raw material to support a new cement kiln. The NPPF identifies that clay supplied for bricks and for use as a cement raw material, is of local and national importance.

Independent laboratory tests and brick firing trials confirmed that the clay extracted from LCP's proposed site has a chemistry consistent with a brick clay. The clay also contains amounts of silica, aluminium oxide, ferric oxide and quicklime that make it conducive for use in the production of cement. Concrete is formed by mixing cement with sand, water and aggregate.

The Government's record £5.2 billion investment in flood and coastal erosion defences from 2021, to avoid £32 billion in future economic damages², will create additional demand for clay.

The need for waste recovery and waste recycling can be demonstrated by the gaps in the 2014 Waste Local Plan, which were evident 5 years later, but not addressed in the 2019 review, namely:

- The number of exempt waste sites (i.e. operating without a waste permit and in some cases, possibly without planning permission) registered with the Environment Agency in the Loxwood and Rudgwick area, many of which have waste handling capacities that exceed that being proposed by LCP.
- The number of allocated sites in the 2014 Waste Local Plan that have not been developed. Plus sites that have been permitted but are not in the local plan.
- The BREXIT impact on UK waste handling capacities, which was not considered in the 2019 review of the Waste Local Plan
- The Circular Economy objectives that were first set out in Defra's 2018 Waste and Resources Strategy but not addressed in the 2019 review of the Waste Local Plan.
- The Circular Economy amendment regulations that came into force on the 1 October 2020.

The restoration of the clay pit with suitably inert materials from the CMRF will provide the opportunity for waste materials originating within West Sussex to be managed close to where they arise thereby meeting the aspirations of the proximity principle and self-sufficiency.

¹ Localism Act 2011

² HM Government's Flood and Coastal Erosion Risk Management Policy Statement – July 2020

Moreover, the establishment of a clay pit with 30 years of clay reserves, would replace the loss of the 30-year clay reserve (from 2012 until 2042) at the former Rudgwick clay pit and brickworks close to LCP's site. This former clay pit and brickworks was designated as a safeguarded site in the 2003 West Sussex Minerals Local Plan and in minerals planning policy terms, should not have been granted planning permission for restoration of that clay pit 30 years earlier than originally intended.

R Harrison & Sons Limited acquired the freehold of the former Rudgwick Brickworks from Wienerberger Brick in 2012. Wienerberger had acquired Rudgwick in 2006 following the acquisition of Baggeridge Brick plc and the closure of the site resulted in the loss of some 51 jobs.

Wealden Clay had been previously extracted from the Quarry and formed into stockpiles for use in the adjacent brickworks premises. In addition, materials were imported to the site to assist in the clay products manufacture including coke breeze and sand. The Harrison family decided to acquire the former Brickworks consisting of buildings and land to continue the expansion of their dairy farming business. West Sussex County Council granted planning permission to R Harrison & Sons Ltd in 2015, which enabled them to restore the 8.8 hectare former clay pit site with 590,000 tonnes of imported inert wastes over a very short 4 to 5 year period (80 HGV movements a day 6 days a week). This was not in the Waste Local Plan.

LCP's proposed development would replace the clay reserve that was lost to the county when the safeguarded Rudgwick site closed 30 years earlier than it should.

Alternatives

Alternatives to the proposed development have been considered to confirm that the proposed development is the most appropriate option.

Alternative sites have been considered. From a clay supply perspective, the potential for other sites with suitable quality clay is limited within 50 miles of all users in order to be economically viable. All other potential clay pit sites that are in locations without existing brick works offer no advantage over LCP's site. The two brick works that have a clay shortage are unable to expand their on-site capacities or they are subject to planning constraints.

The alternative allocated waste sites in the local waste plan have been granted planning permission for alternative developments or have not been developed by the owners and are not for sale. Furthermore, none of these sites are suitable for a clay pit development.

The final design, to combine a CMRF at the same site as a clay pit, provides environmental synergies with a lower carbon footprint and is, therefore, more sustainable than carrying out the two operations at different locations.

FIGURE NTS2 SHOWN AT THE END OF THE DOCUMENT – CLAY PIT DESIGN

Environmental issues

Technical specialists have carried out an Environmental Impact Assessment (EIA) of the effects of the development on people and the environment. The scope of the EIA has been agreed with West Sussex County Council and where necessary the scope of the assessments have been agreed with interested parties. The Environmental Statement (ES) reports the results of those assessments and a summary of the findings.

The ES describes the control measures that form an important part of the proposals to minimise the effects of the proposed development upon the environment.

Traffic and Transport Assessment

A transport statement has been produced as part of the ES. Surveys to measure the existing traffic flows on Loxwood Road and the A281, and an assessment of the access to the site entrance in the layby on Loxwood Road, along with the traffic levels generated by the development, were undertaken.

Access to the proposed development site is from the existing access to Pallinghurst Woods. The existing private access road through Pallinghurst Woods did not form part of this assessment. However, the access into Pallinghurst Woods did form part of the Road Safety Audit requested by West Sussex County Council Highways Authority.

HGV movements associated with the proposed exportation of clay will be on average 5 per day (2.5 IN / 2.5 OUT) which equates to approximately 0.5 movements per hour for the clay extraction.

The importation of waste for treatment in the CMRF will be maximum 32 movements per day (16 IN / 16 OUT) and minimum 10 movements per day (5 IN / 5 OUT) which equates to approximately 1 to 3.2 movements per hour for the waste inputs.

The exportation of recycled waste materials from the CMRF will be on average 5 per day (2.5 IN / 2.5 OUT) which equates to approximately 0.5 movements per hour for the waste outputs.

Overall, the number of HGV movements will not exceed 42 per day (21 IN / 21 OUT) which equates to approximately 4 movements per hour during a 10-hour day Monday to Friday.

There is sufficient capacity at the layby access junction on Loxwood Road and the junction of Loxwood Road / A281 to accommodate 42 movements per day. The safety of the entire stretch of Loxwood Road from the B2133 to the A281 and the layby junction on Loxwood Road has been assessed and found to be acceptable. The Stage 1 Road Safety Audit has confirmed the suitability of the access from/to Pallinghurst Woods at the layby junction on Loxwood Road.

The conclusion is that there are no reasons why the proposed development should not be granted planning permission on highway safety or traffic grounds.

Water & Flood Risk

This assessment has reviewed the potential impacts during the operations, mineral excavation and restoration, with a number of proposed mitigation and incorporated design measures in order to avoid adverse effect on the Water Environment. At each stage of the development, the overall risks are considered to be low. Therefore, the Proposed Development is not expected to pose a risk to groundwater or surface water at the Site. No significant adverse effects are predicted which could pose a constraint to development.

The Site is not located in a hydrologically sensitive area and local watercourses or controlled waters are unlikely to be significantly adversely affected by proposals in relation to quality or flows. It is not considered that there are any hydrological constraints to development.

The Site lies within a Flood Zone 1 risk area and, therefore, classified as a low risk of flooding according to National Planning Policy Guidance. The surface water discharge from the site will be limited to greenfield runoff in reflection of the hydrological environment.

The Proposed Development is not vulnerable to, or at risk of flooding and is appropriate for the location and will not increase flood risk elsewhere, during the operational period or upon restoration. The Proposed Development remains low risk against future flooding when taking account of climate change.

Land Contamination

An assessment of the potential for any previous contaminative uses of the land within Pallinghurst Woods has been undertaken. Historical maps have been reviewed and there are no known sources of contamination at the proposed development site. It is considered there will be no unacceptable impact associated with land contamination.

Ecology, biodiversity and arboricultural

A large number of ecological and arboricultural surveys have been undertaken at the proposed development site and a habitat survey of the wider area along the access route through Pallinghurst Woods. The ecological surveys focussed on a range of species including great crested newts, breeding birds, wintering birds, invertebrates, badger, roosting bats, foraging and commuting bats, hazel dormouse and reptiles. An arboricultural survey of the development site and the access route has also been undertaken.

A biodiversity assessment has also been carried out to ensure that any mitigation measures create additional habitats throughout Pallinghurst Woods, which along with the restoration of the development site, will introduce a mosaic of habitats and will result in a significant positive effect on the biodiversity of Pallinghurst Woods.

There will be tree loss on the site, in the short to medium term, due to the development proposals. Once the compartments begin to become re-vegetated with wild flora and they are then replanted with trees, the loss of trees and impacts on the woodland ground flora and other habitats would be mitigated. The site and the wider site will ultimately be returned to mixed, native, deciduous woodland, managed under a short rotation coppice, with more diverse wildflower grassland habitats (from shady to sun lit), with woodland rides and additional habitats including deadwood habitats, and newly extended and managed linked wildflower verges. This will be to benefit local invertebrates, including butterflies such as the Wood White, and to create a more resilient woodland over time.

Due to the small-scale development and the progressive nature of the operations at the site it is concluded that the development can be undertaken with minimal impact on the existing ecological interest at the site and in Pallinghurst Woods. The Ecological Impact Assessment concludes that the proposed development will result in short-term negative effects to a range of Important Ecological Features, particularly during the construction and operational phases of development. However, the mitigation hierarchy has been applied in full by: avoiding impacts to significant features at the Site's boundaries including Ancient Woodland and historic boundaries with mature trees and diverse ground flora; mitigating the loss of deciduous woodland Habitat of Principal Importance through translocation of ground flora and replacement woodland planting; mitigating negative

effects on protected fauna through translocation and creation of suitable replacement habitats; and compensating for residual negative effects by creating new areas of biodiverse habitat through conversion of conifer woodland outside of the Site to deciduous woodland. Furthermore, an extensive range of management interventions outside of the Site is proposed for the benefit of protected species which will enhance the extent, structure and condition of habitats which support notable species including in particular nightingale, wood white butterfly and foraging and commuting bats. Following decommissioning and site restoration, the EcIA has shown that positive effects are expected overall.

FIGURE NTS3 SHOWN AT THE END OF THE DOCUMENT – PROPOSED RESTORATION
PLANTING AND LANDSCAPING

Cultural heritage

There is a low probability for archaeology of all periods except the Post medieval period, which has high probability of remains associated with woodland and agricultural activities, and industrial activities such as brick and glass making. Surveys confirmed the presence of woodland banks, trackways and drainage all associated with the 19th–20th century woodland management, although some of the banks and tracks are likely to have earlier origins. None of these are considered to be of national or regional importance. No saw pits, charcoal burning platforms or military features were seen during the ground survey.

The entrance from the layby on Loxwood Road and the initial part of the access road is located on the site of a 19th century brickworks, and clay pits and other earthworks indicate that there is a high probability of surviving structures being present.

The proposed development will not visually impact upon the setting of any Listed Buildings, however the additional movement of vehicles on Loxwood Road could have a small negative impact on Listed Buildings located along this route. The impact on all of the Listed buildings is considered to be less than significant.

To address any issues raised during the site surveys, a Written Scheme of Investigation for Archaeological Earthwork Survey has been produced as part of the EIA.

Soil resources

A soil survey has been undertaken at the proposed site. The site will be restored using soils stripped during excavation for restoration to planted woodland.

Noise

A noise assessment has been undertaken to calculate the predicted noise levels for the operations at the site. Sound level measurements have been undertaken at locations representative of the surrounding residential properties to determine the baseline conditions for the area. From the measurements, the representative baseline ambient and background sound levels have been determined.

Assessment of the maximum predicted sound levels from both the clay extraction and CMRF process to each receptor has been undertaken against the guidance from West Sussex Council's Waste Local Plan, the Sussex Authorities Planning Noise Advice Document, BS4142:2014+A1:2019, consultation with Chichester District Council, the Government's Planning Practice Guidance for Minerals (PPG-M) and the criteria for schools given in BB 93.

It is concluded that with suitable noise control measures, such as locating the CMRF inside a building, the predicted levels at the noise sensitive receptors are equal to or below the lowest applicable criteria. Accordingly, the noise emissions from the operation of the site are considered to be national and local policy compliant.

Landscape and visual impacts

A Landscape and Visual Impact Assessment for the proposed development has been undertaken. The initial stages of the development such as soil stripping, screening bund construction, construction of the CMRF building would result in some temporary short-term significant effects. Clay extraction, waste processing and restoration operations would not result in significant impacts on landscape character or quality. Most views are restricted to close range views and glimpses through existing woodland to the proposed access route and site proposals.

The private access route through Pallinghurst Woods will follow the existing woodland vehicular access route. Parts of the proposed route are through a modified landscape. This lowers the magnitude of change from moderate to low for some views, as from Loxwood Road and the layby. That is because the landscape sensitivity is lower for the areas nearest to Loxwood road due to existing traffic, car and van parking at the layby and other suburbanising landscape elements in the landscape baseline. The representative viewpoints have been selected to show the typical views along parts of the proposed access route, as well as the views of the site where receptors on the public rights of way will be likely to be affected by the proposals.

Following the progressive restoration aftercare and the parallel biodiversity net gain measures during the operational life of the project, the effects on the landscape would be beneficial due to the biodiversity enhancements to the character of Pallinghurst Woods.

The short-term effects on the rights of way crossing or footpaths adjacent to the proposed development site would be addressed by temporarily re-routing foot path 792_1. Views of the clay pit extraction and CMRF will be largely screened. On completion of the restoration the visual effects will be beneficial.

Air Quality

As the proposed development includes mineral extraction and waste development an air quality assessment is required. An air quality assessment has been carried out in accordance with the Sussex air quality and emissions mitigation guidance.

The transport emissions calculator for vehicle exhaust emissions were assessed using Defra's Damage Costs Appraisal Toolkit for small air quality impacts. This concluded that the standard mitigation measures would suffice.

The small clay extraction activities will take place using mobile plant and equipment with all plant and equipment operated inside the CMRF building powered by electric motors supplied with electricity from onsite generation and from the local grid network in due course.

Dust emissions from the CMRF inside the building will be fully abated by a water mist system (Mist-Air) that is regarded as the best available technique and recovered suitably inert materials used for the restoration of the clay pit will be stored in sealed containers prior to use. The water mist system will be used when these materials are discharged into the clay pit void. Emissions will be regulated in accordance with the waste activity permits issued by the Environment Agency.

Cumulative Effects

Information regarding the proposals available on WSCC and Chichester District Council's website / planning portal have been reviewed and the potential for cumulative impacts has been assessed with regard to traffic and transport and the other EIA technical issues. It is concluded that the cumulative impacts of the proposals at LCP's proposed site and the approved residential developments off Guildford Road, Loxwood will not be significant.

Socio-Economic Impact

The socio-economic impact over the 30+ year lifetime of the project has been assessed with and without employment. The construction and set up costs during the first 2-3 years of the project will be more than £1 million. If permission is granted, this will also lead to further investment in West Sussex for brick production, which would replace the predicted future loss of existing brickworks and help to provide bricks of a local character for use in house building in the West Sussex area.

During the first 1 to 3 years the proposed development will create 12 full time jobs. During the lifetime of the project, on a net present value basis, this could provide c. £10 million of income to the local economy. It has been concluded that if planning permission is granted the benefits will be completely additional to the local authority area and, therefore, there will be "low deadweight".

Climate Change

Schedule 4 of the EIA regulations require an assessment of the vulnerability of a project to climate change. The hydrology and hydrogeology section of the Environmental Statement and those associated environmental impact assessments have considered the impact of climate change on flood risk etc. and concluded that there are no significant impacts. When considering the figures for Greenhouse Gas emissions (GHG) on an annual basis, the development emissions equate to approximately <0.05% of the emissions of West Sussex and are therefore considered to be insignificant and these will improve over the life of the project.

Conclusions

Extensive technical studies have been undertaken to define the environmental conditions at the site and the surrounding area on which to base robust assessments of the potential environmental impacts of the proposed development.

The studies have demonstrated that the proposed development can be undertaken without having unacceptable effects on the environment and will provide a suitable beneficial restoration of the site. The operation of LCP's proposed activities will provide for economic and social benefits.

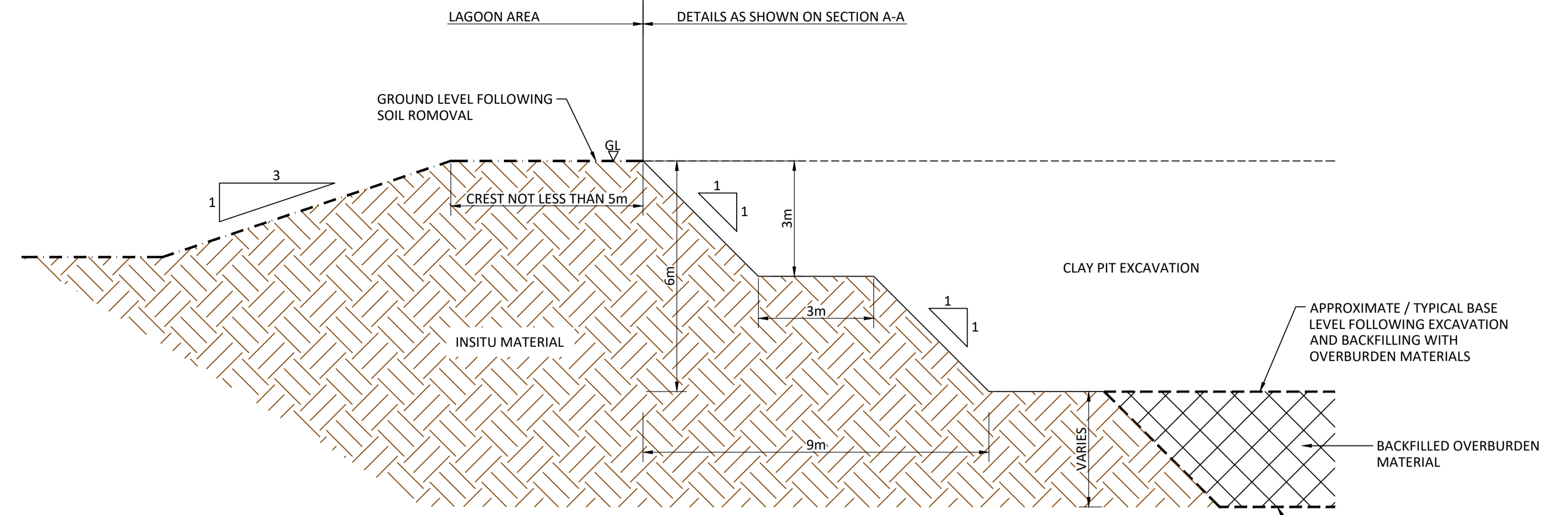
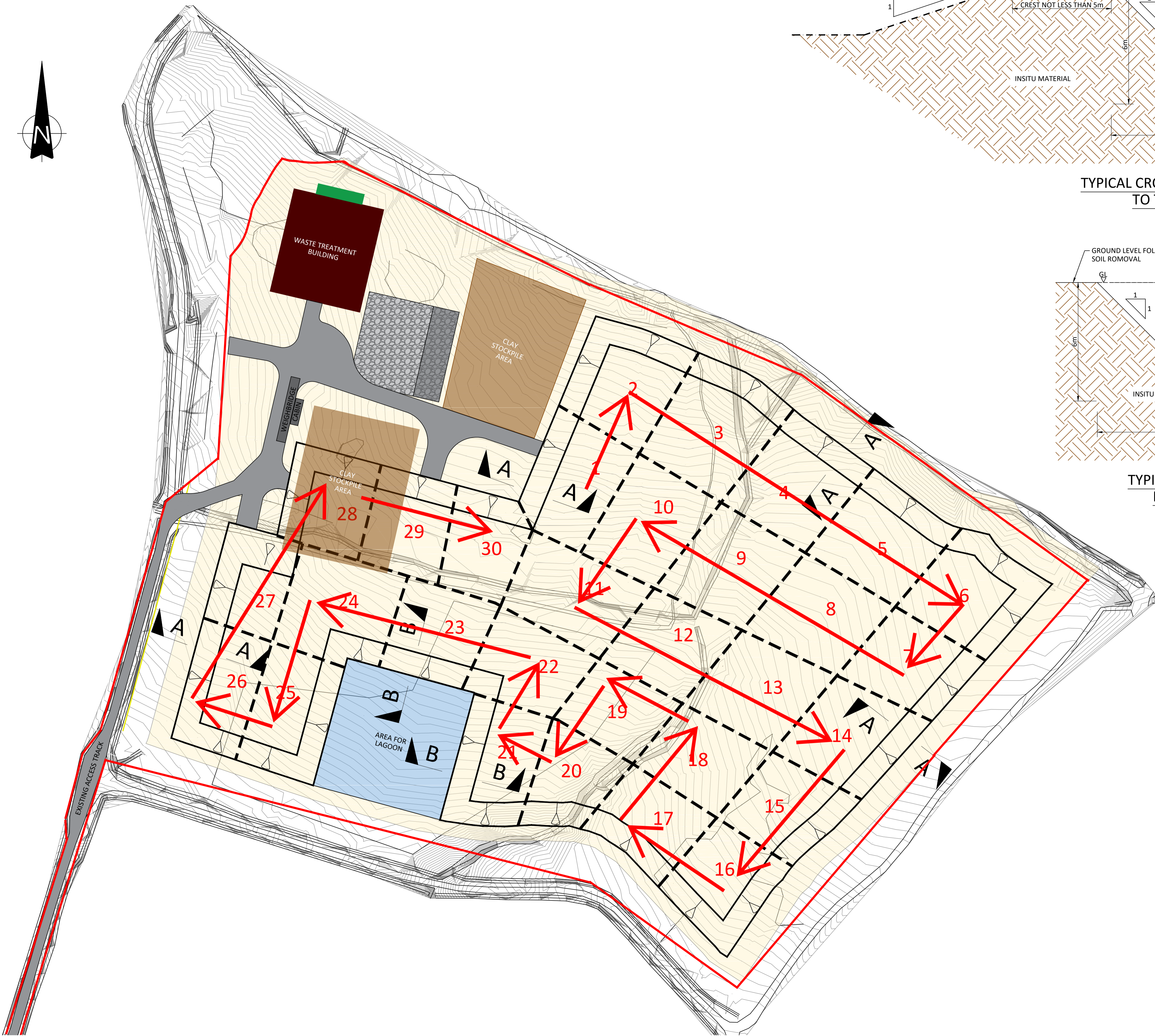
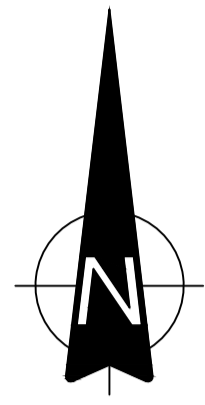
NOTE: Electronic copies of all of the planning application documents are available for download from the planning portal on West Sussex County Council's website - <https://www.westsussex.gov.uk/planning/find-a-planning-application/> and Loxwood Clay Pits Limited website - www.loxwoodclaypits.co.uk

Hard copies of the Environmental Statement are available from Protreat Limited, by submitting an email request to - cwilliamson@protreat.co.uk or alternatively, by post to:

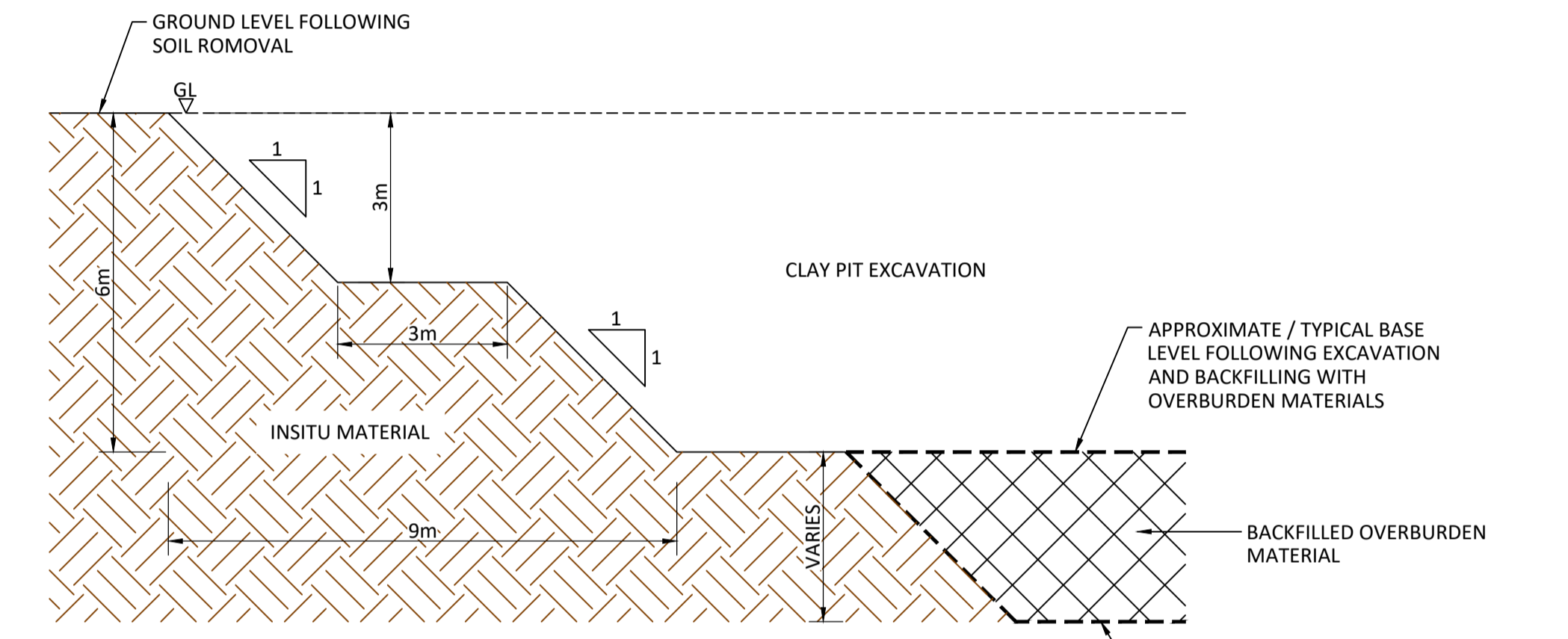
Protreat Limited
6 Abbey Court
High Street
Newport
Shropshire
TF10 7BW

A charge of £20 will apply to cover printing, packaging and postage costs for the 149 page Environmental Statement. However, this does not include the additional 3 expanded Tables, 26 Figures and the 23 Appendices. Any hard copies of these additional documents is subject to a Price on Application.

FIGURE NTS 2 - CLAY PIT AREA AND CELL DESIGN FOR EXTRACTION AND RESTORATION PHASING SHOWN WITH PLANNING APPLICATION BOUNDARY



TYPICAL CROSS SECTION IN PROXIMITY TO THE LAGOON AREA
(SECTION B-B)
1:100



TYPICAL CROSS SECTION OF THE PERIMETER CUT SLOPES
(SECTION A-A)
1:100

NOTES

1. SURVEY AND CONTOUR DETAILS ARE TAKEN FROM SURVEY INFORMATION SUPPLIED BY PROTREAT LIMITED ON 16/02/2021 REF:20409-3D.DWG

LEGEND

- PROPOSED DEVELOPMENT AREA FOR WASTE TREATMENT, CLAY EXTRACTION AND RESTORATION
- EXISTING CONTOURS (SEE NOTE 1)
- AREA DESIGNATED FOR LAGOON DEVELOPMENT
- ACCESS TRACK AND INTERNAL ROADS
- WEIGHBRIDGE AND WEIGHBRIDGE CABIN
- WASTE TREATMENT BUILDING
- WELFARE AND OFFICE UNITS (STACKED)
- AREAS PROPOSED FOR CLAY STOCKPILES
- TEMPORARY STORAGE AREA AND ACCESS FOR CONTAINERISED SCREENED FINES FROM THE WASTE TREATMENT
- TYPICAL LINE OF SECTION
- CLAY PIT PERIMETER SLOPE AREA
- 1 PROPOSED EXTRACTION AND RESTORATION PHASE NUMBER
- APPROXIMATE BOUNDARY BETWEEN EXTRACTION AND RESTORATION PHASES
- THE PLANNING APPLICATION BOUNDARY
- PROPOSED DIRECTION OF CLAY PIT EXTRACTION AND RESTORATION

P01	ISSUED FOR INFORMATION	DA	JRC	JRC	21.04.21
REV	MODIFICATIONS	BY	RE	AP	DATE
PURPOSE OF ISSUE					STATUS
FOR INFORMATION					S2
CLIENT:					
PROTREAT LIMITED					
PROJECT:					
LOXWOOD CLAY PIT					
TITLE:					
PROPOSED SITE LAYOUT					
DESIGNED BY	DRAWN BY	REVIEWED BY	AUTHORISED BY		
JRC	DA	JRC	JRC		
DATE	SCALE @ A1	JOB REF:	REVISION		
21.04.2021	1:750	4788	P01		
DRAWING NUMBER					
4788-CAU-XX-XX-DR-C-1800					

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Existing Woodland to be maintained as per existing management plan.



- New mix native hedge**
- No.33 Acer campestre 10%
 - No.10 Carpinus betulus 3%
 - No.7 Clematis vitalba 2%
 - No.17 Cornus sanguinea 5%
 - No.33 Corylus avellana 10%
 - No.33 Crataegus laevigata 10%
 - No.65 Crataegus monogyna 20%
 - No.17 Ilex aquifolium 5%
 - No.17 Ligustrum vulgare 5%
 - No.17 Lonicera periclymenum 5%
 - No.33 Prunus spinosa 10%
 - No.7 Rosa canina 2%
 - No.10 Sambucus nigra 3%
 - No.17 Viburnum lantana 5%
 - No.17 Viburnum opulus 5%

- Triple Staggered Hedge**
- No.34 Acer campestre 5%
 - No.67 Carpinus betulus 10%
 - No.34 Cornus sanguinea 5%
 - No.67 Corylus avellana 10%
 - No.100 Crataegus laevigata 15%
 - No.100 Crataegus monogyna 15%
 - No.106 Ilex aquifolium 16%
 - No.27 Prunus institia (Damson) 4%
 - No.67 Prunus spinosa 10%
 - No.27 Rosa canina 4%
 - No.40 Sambucus nigra 6%

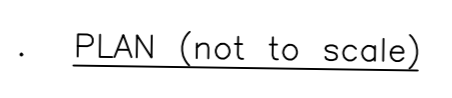
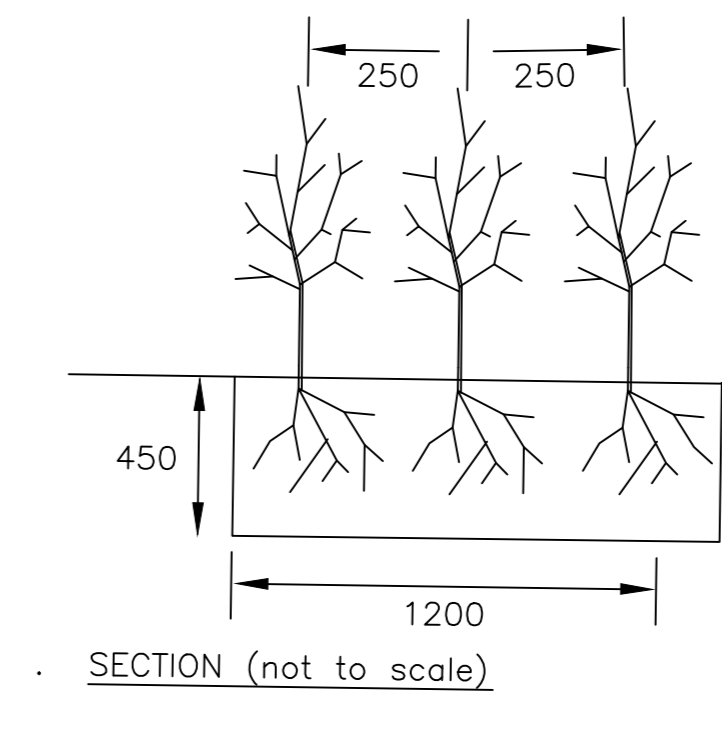
- Triple Staggered Hedge**
- No.7 Acer campestre 5%
 - No.13 Carpinus betulus 10%
 - No.7 Cornus sanguinea 5%
 - No.13 Corylus avellana 10%
 - No.19 Crataegus laevigata 15%
 - No.19 Crataegus monogyna 15%
 - No.20 Ilex aquifolium 16%
 - No.5 Prunus institia (Damson) 4%
 - No.13 Prunus spinosa 10%
 - No.5 Rosa canina 4%
 - No.8 Sambucus nigra 6%

- Triple Staggered Hedge**
- No.58 Acer campestre 5%
 - No.115 Carpinus betulus 10%
 - No.58 Cornus sanguinea 5%
 - No.115 Corylus avellana 10%
 - No.173 Crataegus laevigata 15%
 - No.173 Crataegus monogyna 15%
 - No.184 Ilex aquifolium 16%
 - No.46 Prunus institia (Damson) 4%
 - No.115 Prunus spinosa 10%
 - No.46 Rosa canina 4%
 - No.69 Sambucus nigra 6%

Woodland Mix

- New mix native hedge**
- No.13 Acer campestre 10%
 - No.4 Carpinus betulus 3%
 - No.3 Clematis vitalba 2%
 - No.7 Cornus sanguinea 5%
 - No.13 Corylus avellana 10%
 - No.13 Crataegus laevigata 10%
 - No.26 Crataegus monogyna 20%
 - No.7 Ilex aquifolium 5%
 - No.7 Ligustrum vulgare 5%
 - No.7 Lonicera periclymenum 5%
 - No.13 Prunus spinosa 10%
 - No.3 Rosa canina 2%
 - No.4 Sambucus nigra 3%
 - No.7 Viburnum lantana 5%
 - No.7 Viburnum opulus 5%

- Triple Staggered Hedge**
- No.26 Acer campestre 5%
 - No.51 Carpinus betulus 10%
 - No.26 Cornus sanguinea 5%
 - No.51 Corylus avellana 10%
 - No.77 Crataegus laevigata 15%
 - No.77 Crataegus monogyna 15%
 - No.82 Ilex aquifolium 16%
 - No.21 Prunus institia (Damson) 4%
 - No.51 Prunus spinosa 10%
 - No.21 Rosa canina 4%
 - No.31 Sambucus nigra 6%



NOTES:

- Clear 1000mm wide strip of vegetation along hedge line to leave bare ground.
- Spread screened greenwaste over cleared area at a rate of 10 litres per m².
- Break up the soil and incorporate greenwaste by rotavating or hand forking.
- Remove any large stones/debris exceeding 100mm diameter.
- Prepare the plants: a) prune back any damaged roots to healthy growth; b) place roots of waiting plants in water whilst planting; c) keep roots moist at all times keep covered until ready to plant; d) apply Broadleaf root dip or similar.
- Excavate planting pit wide enough to accommodate roots without cramping and at least 300mm deep a triple staggered row, 250mm between rows.
- Backfill the trench to half its depth and firm by treading. Continue planting the trench.
- Once planted, firm as before level area.
- Topdress the planting area with a 50mm depth of screened greenwaste.
- In March cut the plants hard back to within 250mm of the ground to encourage bushy growth from the base.
- Place spiral or tube around whip after planting to protect from rabbits and deer.

Title:	HEDGE PLANTING: Triple ROW	Notes:
Ref:	DET009.DWG	Scale: NTS

- Triple Staggered Hedge**
- No.126 Acer campestre 5%
 - No.252 Carpinus betulus 10%
 - No.126 Cornus sanguinea 5%
 - No.252 Corylus avellana 10%
 - No.377 Crataegus laevigata 15%
 - No.377 Crataegus monogyna 15%
 - No.402 Ilex aquifolium 16%
 - No.101 Prunus institia (Damson) 4%
 - No.252 Prunus spinosa 10%
 - No.101 Rosa canina 4%
 - No.151 Sambucus nigra 6%

On existing living trees which are large enough, use tree-manipulation to produce dead wood. Produce Stumperies and standing dead wood, to conserve habitats for invertebrates.



Existing Woodland to be maintained
Site Landscape Restoration Notes.

Coppice cycle, to be a short coppice rotation and harvesting cycle; this will be to keep the areas more open for invertebrates.

Add one new east-west woodland track; this is to be created with wide vegetated verges. This management of the verge is to be for Wood White butterfly. Increasing access track and verges, with verge and track width to 12 metres wide, and rotational cutting once every 3-5 years will be to add new habitats. This restoration is to help to support Wood White Butterfly and other invertebrates.

Once topsoil is re-plated, areas are to be seeded with wildflower seed, suited to the soil and conditions, the seed is to be of local provenance if possible. The wildflower areas will be cut regularly in the first growing season; this is to encourage tillering of plants.

Restocking Mix

Once the wildflower grassland is established, the woodland should be restored with re stocking using the Woodland Proposed Restoration Mix, 1 plant per 3 m².

- Proposed Woodland Restoration Mix**
- No.1128 Betula pubescens 2%
 - No.564 Carpinus betulus 1%
 - No.564 Castanea sativa 1%
 - No.20302 Corylus avellana 36%
 - No.5640 Crataegus monogyna 10%
 - No.1692 Ilex aquifolium 3%
 - No.564 Malus sylvestris 1%
 - No.564 Populus tremula 1%
 - No.564 Prunus avium 1%
 - No.21430 Quercus petraea 38%
 - No.564 Quercus robur 1%
 - No.564 Rosa arvensis 1%
 - No.1128 Rosa canina 2%
 - No.564 Sambucus nigra 1%
 - No.564 Sorbus aucuparia 1%

- NOTES**
- SURVEY AND CONTOUR DETAILS ARE TAKEN FROM SURVEY INFORMATION SUPPLIED BY PROTREAT LIMITED ON 16/02/2021 REF 2009-20.DWG
 - Cells 1 & 2 would be excavated in year 1 and stockpiled
 - The stockpile over cell 28 would disappear in years 2-3.

- LEGEND**
- PROPOSED DEVELOPMENT AREA FOR WASTE TREATMENT, CLAY EXTRACTION AND RESTORATION
 - EXISTING CONTOURS (SEE NOTE 1)
 - AREA DESIGNATED FOR LAGOON DEVELOPMENT
 - ACCESS TRACK AND INTERNAL ROADS
 - WEIGHBRIDGE AND WEIGHBRIDGE CABIN
 - WASTE TREATMENT BUILDING
 - WELFARE AND OFFICE UNITS (STOCKPIL)
 - AREAS PROPOSED FOR CLAY STOCKPILES
 - TEMPORARY STORAGE AREA AND ACCESS FOR CONTAINERISED SCREENED FINES FROM THE WASTE TREATMENT
 - CLAY PIT PERIMETER SLOPE AREA
 - PROPOSED EXTRACTION AND RESTORATION PHASE NUMBER
 - APPROXIMATE BOUNDARY BETWEEN EXTRACTION AND RESTORATION PHASE
 - Existing woodland to be retained throughout clay extraction
 - New mixed native hedge
 - Existing hedge laid

Site
Loxwood Clay Pits
Client
Protreat Ltd

Drawn By **Ian Noel** Checked By **CN**

Plan name
Clay Pit Landscape Plan

LCP/LOX/21/01

1:500 @ A0 May 2021

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Landscape Planning
Arboriculture
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