PART A: NON-TECHNICAL SUMMARY

INTRODUCTION

This is a summary of the Environmental Statement (ES) for proposals (referred to here as 'the scheme') in the Caernarfon Brickworks Quarry, which includes an existing planning permission. The site lies immediately to the south of the town of Caernarfon and consists of an existing clay quarry, large areas of hard surfaced yard on both sides of the River Seiont and an area of pasture to the east. Road access to the quarry is from Pont Seiont roundabout and Seiont Mill Road. A detailed site description is included in Chapter 4 of the ES.

The need for an ES has been confirmed by the Minerals Planning Authority, and has been completed by the Applicant in accordance with the requirements of the Environmental Impact Assessment Regulations. This NTS includes a summary of the findings of each environmental chapter in the ES.

The scheme

The Balfour Beatty and Jones Bros Joint Venture, is the contractor likely to be responsible for construction of the proposed A487 Caernarfon to Bontnewydd Bypass. They propose to resume extraction of minerals in the quarry under the existing minerals planning permission and to modify restoration scheme to improve safety and slope stability. 'The scheme' will also include engineering works to existing quarry haul road on south eastern side of quarry void and a new permanent haul road on the north and east side, for use in bypass construction.

Associated with this scheme the small compound on the brickworks yard will be expanded to provide additional staff accommodation, welfare area, car parking, a plant maintenance shed and bunded fuel store for the duration of the bypass construction contract.

Consultations

Consultations have been carried out with Statutory and relevant non-statutory consultees throughout the development of the proposals and a full list of consultees is provided in the ES Chapter 5. In late 2016 a formal Pre-Application Consultation (PAC) was completed and the results set out in a separate report.

The reasons for the development

The Applicant (Jones Bros) wishes to use the quarry in connection with construction of the proposed A487 Caernarfon to Bontnewydd bypass. There are economic, logistical and environmental benefits to be derived and these are set out in Section 2.6 of the ES. Substantial volumes of fill will needed to construct embankments. Some excavated poor quality soil within the bypass site would need to be removed. Quarries in the area have been considered as sources of fill and suitable sites sought to receive poor quality soils (see Chapter 5 of the ES).

Seiont Quarry has proved to be the best option because it lies beside the proposed bypass and will satisfy most of minerals requirements of the scheme. It also would provide a large flat site, suitable for use as a construction compound. Using Seiont Quarry will avoid around 88,000 HGVs journeys, and any thousands of HGV miles, on public roads over the 2 years of construction. Consequently there will also be considerable savings in the amount of fuel used, reductions in vehicle emissions, and

completion of quarry restoration sooner than 2042, when the existing minerals permission expires. The local community will also benefit from the eventual closure of the existing quarry access road.

Description of the project

The proposals will be mostly contained within the existing quarry and brickworks and will include continued extraction of up to 400,000m^3 of clay which is permitted under the existing planning permission. The proposals are described in Chapter 6 of the ES.

Temporary activities associated with the bypass construction would include a secure contractor's compound with offices, welfare facilities and car parking for personnel, fuel store, a building to service plant and a plant washing facility. These would remain on the former brickyard for 2 and 7 years. Private vehicles and delivery vehicles will access this compound along Ffordd Felin Seiont. All other vehicles will arrive from the bypass construction site.

A new access road would be formed, leading into the quarry from the bypass construction site, part of which would require a road cutting through a field on the east side of the quarry. Within the quarry the processing minerals and mixing concrete would be carried out. An existing haul road would be improved.

Following extraction of the clay required for the bypass the quarry would be restored using surplus fill not suited to forming bypass embankments and some material brought from alternative sources if there is a shortfall in quantities. In place of the hazardous steep-sided waterbody the restoration will fill the sump with around 248,000m^3 of fill to form a dry land. The quarry slopes would be restored to shallower, more stable gradients with approximately 152,000m^3. The restored areas would be covered with soil and seeded as necessary. Tree and shrub planting would also be carried out. Restoration would be completed within 5 to 10 years.

The brickyard to the west of the River Seiont would be excavated to remove 11,000m^3 of made-ground to provide infill material to form a basin with a shallow, permanent waterbody and restored for nature conservation and amenity.

Air Quality assessment (Chapter 6 of the ES)

Air quality is a matter of concern for human health and for the wider environment. European and national legislation sets objectives for air quality and this assessment examines whether the proposed scheme in the quarry will cause dust and emissions to exceed the objectives.

The air quality in the vicinity of the quarry is generally very good. The air quality effects on human receptors associated with the scheme are unlikely to prevent the implementation of measures by Gwynedd Council to meet national air quality standards. There is unlikely to be an exceedance of UK air quality objectives, nor would a new Air Quality Management Area be declared.

Occurrences of dust in the quarry will be limited and of short duration and will be minimised by implementation of dust control measures. Increased HGV and plant exhaust emissions in the quarry would not increase air pollution above Air Quality Objective thresholds for the annual daily average.

Cultural Heritage (Chapter 7 of the ES)

Cultural heritage includes archaeological remains, Listed Buildings, Ancient Monuments, Conservation Areas and other heritage sites. The assessment describes how these sites might be affected and

assesses the impacts that construction and operation of the quarry and its associated infrastructure may have and identifies mitigation measures to avoid, reduce or offset any adverse impacts.

36 heritage sites have been identified within the quarry or the immediate surrounding area that include houses, farms and other buildings, gardens, walls, crop marks, a former railway, a former clay pits and other industrial features. The impacts for almost all of the sites were assessed as Neutral or Neutral to Slight, meaning that there was either no change in the condition of the site, or that there was a possibility of minor alteration to one or more characteristics such as the setting. None of these impacts were considered to be Significant. Mitigation would include landscape planting and restoration of the quarry to address the adverse impacts on the landscape setting. An Archaeological Watching Brief and recording would be maintained in the critical areas during excavation.

Landscape and visual amenity (Chapter 8 of the ES)

This assessment, which considers the likely effects of the proposed scheme on the landscape and visual amenity of the surrounding areas, shows that there would be no significant adverse impact to designated landscapes. In particular, the scheme would not be noticeable in views from Snowdonia National Park.

A number of local properties experience views of the existing quarry, but no significant visual impacts are predicted as a consequence of the scheme. Properties overlooking the quarry are predicted to suffer a slight adverse impact when the quarry is being worked, but on restoration of the quarry these detrimental impacts will be alleviated. No significant visual impact is predicted as a consequence of any lighting required in the scheme.

Whilst the impact of 'the scheme' alone will not be significant, the cumulative impacts caused by the proposed bypass, in addition to this scheme in the quarry, are considered likely to contribute a significant direct detrimental landscape impact on the locality.

Ecology and nature conservation (Chapter 9 of the ES)

This assessment covers the effects of the proposals on biodiversity and nature conservation sites. There are a range of statutory and non-statutory nature conservation sites within a distance of 5km. The site includes trees, scrub and grassland habitat of a kind associated with natural regeneration on bare soils. Bats use a roost on the fringes of the scheme and otter use the river corridor, while a range of bird species use the site and setting.

Mitigation measures will be included will protect important habitats and sites during the period of use of the quarry. The restoration scheme will enhance existing habitat and allow the development of grassland and scrub habitat associated with natural regeneration. The proposed shallow waterbody west of the river will provide new wetland habitat. There will be no impact on Lesser horseshoe bats using a roost on the edge of the site, on bat species foraging in the surrounding area and on otter using the river corridor.

The assessment has also demonstrated that, provided the mitigation measures are implemented there will be no cumulative impact on bat species or on otter from the proposals.

Geology and soils (Chapter 10 of the ES)

This assessment covers the effects of construction and operation of the quarry and its associated infrastructure on site designations, geology and geomorphology, mineral reserves and soils. It also assesses the risk to receptors, such as rivers and people, if contaminated land were to be disturbed.

A ground investigation has been completed, to better understand the risks of any ground contamination, but no concentrations of contaminants were identified above guideline concentrations. A small fraction of asbestos fibres was detected in 4 of the 11 soil samples tested but the samples are from an area that will remain sealed beneath the concrete slab of the former brickworks so there is negligible risk of human exposure to the ground strata. However, if further contamination were found during quarrying, the contamination could pose a very low risk. Water samples taken in the River Seiont, show there is no existing impact from the quarry on water quality.

The clay quarry has been excavated into Pen-y-Bryn for many decades, and small landslips are evident on the east side of the quarry. The south slope of the quarry is designated as a 'Regionally Important Geodiversity Site' (RIGS). Further excavation of the clays is permitted under an existing planning permission. The proposed restoration scheme for the quarry will address slope instability as well as repairing the landscape. These impacts have been assessed as slight to moderately beneficial. The scheme will have a Large Beneficial Impact on the remaining Designated RIGS site.

Noise and Vibration (Chapter 11 of the ES)

This assessment considers the proposed scheme in terms of the potential noise impact and identifies suitable measures to mitigate the impact. The assessment undertakes predictions of noise levels at the closest Noise Sensitive Receptors (NSRs) and compares these with the existing noise and noise limits set by national standards, policy and guidance.

The assessment has shown that worst-case noise levels generated by operations during all anticipated phases of the development are predicted to be at or below the adopted noise level limits at all identified receptor locations. Features incorporated into the design of the scheme will aid in the mitigation of noise. A number of good site practices are proposed to further reduce the risk of potential noise impacts. Noise should not pose a material constraint for the proposed scheme.

Effects on Community Assets (Chapter 12 of the ES)

This assessment considers the potential impacts on the local community and community facilities such as public rights of way, public roads, public open space, or community buildings, brought about by the movement of construction vehicles, or temporary or permanent changes. The assessment also takes account of any measures to avoid or to mitigate for the effects.

A preliminary examination demonstrated that some community facilities would be sufficiently affected to make a more detailed assessment necessary. These facilities included Footpath 13 which follows the north bank of the River Seiont, Footpaths 26, 31 and 32 in Caeathro, Ffordd Felin Seiont, Ysbyty Eryri and the Care Home, and 'The Park' public open space.

During the period when the quarry and brickyards would be in use the impact on all the facilities listed above would be 'Slight Adverse'. Once the quarry is restored the impact on community facilities will be with Moderate Beneficial, while the residents on Ffordd Felin Seiont would benefit from a

Moderate to Substantial Improvement. The impact on users of public footpaths 26,31 and 32 would be Neutral.

Cumulatively the quarry and bypass scheme would result in Slight adverse impacts on the Footpaths 26, 31 and 32 because the bypass scheme will require users to cross the new road.

Traffic generation and effects (Chapter 13 of the ES)

This assessment considers the potential impacts on local access and traffic on local roads associated with the scheme and has taken into consideration the type and volume of traffic generated.

The A487 bypass scheme will require up to 400,000 cubic metres of rock and soil for embankments. Soils that are excavated from the bypass, but do not meet engineering requirements are available for quarry restoration. The total volume of fill would require nearly 890,000 return journeys by 20 tonne Heavy Goods Vehicles (HGV). If Caernarfon Quarry is used to both supply engineering fill and to receive poor quality soils, there will be no need for these HGVs to travel to more distant quarries and disposal sites on public roads. This will mean less use of fuel, reduced construction costs and vehicle emissions.

Some HGVs will still use public roads, but careful planning of routes for HGVs and prohibitions on site HGVs using certain roads sensitive local roads will reduce impacts. Staff will arrive at the construction site before the morning rush hour (8am to 9am) and leave after the afternoon rush hour (4pm to 5pm).

The residual impacts, taking into account proposed mitigation, would be an increase in traffic on most local roads of around 1% or less. The greatest impact would be on traffic using Ffordd Felin Seiont which serves a limited number of residential properties and the quarry. Current traffic on this route is estimated to be around 200 vehicles per day. Adding proposed quarry traffic would increase use of the road by a daily average of 84 vehicles (41%). This increase will have a Moderate Impact.

Cumulative impact with the bypass construction project would slightly increase traffic overall, with the possibility of temporary increased congestion at the Goat and Plas Menai roundabouts and other access points onto the bypass construction corridor. On completion of the quarry and bypass, roads would no longer be affected by the construction traffic.

Drainage and the Water Environment (Chapter 14 of the ES)

This assessment describes the existing flood risk at the site, assesses the potential impacts of the development during construction and restoration phases on flood risk elsewhere and on groundwater.

The site is located within Flood Zones shown on Welsh Government and Natural Resources Wales Flood Maps. These maps show that the site is at risk of flooding from the River Seiont. However, there are no historical records of floods in the quarry or brickworks yard to support this. With the agreement of Natural Resources Wales (NRW) the Applicant undertook 2-Dimensional (2D) hydraulic modelling of the Afon Seiont and the surrounding floodplain, using an accepted method, to estimate potential flood levels and extents, water depths and flow velocity.

The assessment demonstrated that the proposed development, including most of the former brickworks yard and the existing access road, is actually flood-free. A small area in the northwest corner of the brickyard is still at risk of flooding. The proposed temporary contractor's compound and the quarry and will not use the area at risk of flooding. The proposed quarry restoration would not

increase flood risk. The brickyard west of the river is shown to be at risk of flooding. Proposals to excavate a basin in this area would provide a measure of additional flood storage capacity but would not adversely affect the flow in the river.

Water Quality (Chapter 15 of the ES)

This assessment describes the potential impacts on the quality of water in the ground and in watercourses during the establishment, operation and restoration of the proposed scheme in the quarry. If there is a source of pollution and a pathway by which the pollution can be transferred to water then contamination of water could occur. Sources of contamination in the site could include clay soils, which could be washed into the river causing turbidity; contamination in the ground; and fuel, lubricants and other pollutants which could be spilled. Testing of soil samples from made ground have not identified pollutants that could be cause water pollution.

Water resources that could be affected by the scheme include the River Seiont, which supports Salmonid species and flows into the Menai Strait & Conwy Bay Special Area of Conservation (SAC); an un-named seasonal watercourse of relatively poor quality which flows to the south of the quarry to ultimately discharge into the Afon Gwyrfai SAC; and a spring on the south west side of the quarry; and the pool of water in the quarry sump.

Mitigation would remove sources and pathways that allow water pollution of watercourses to occur. These measures will include settling lagoons for silty water; bunded fuel storage and careful handling of material from made ground and imported fill. With mitigation, the impacts on sensitive receptors such as the River Seiont would be Neutral.

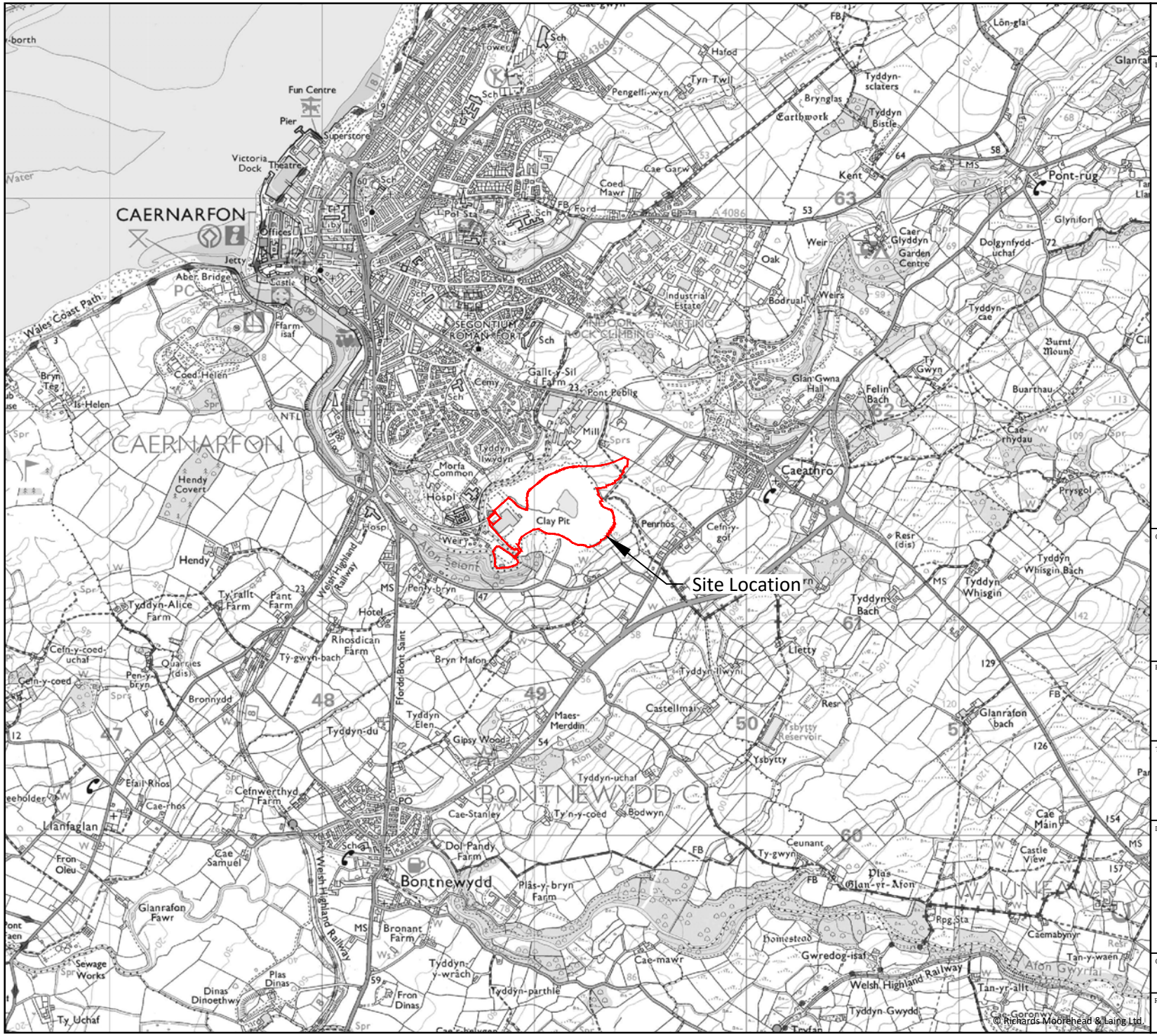
Consideration of cumulative effects

Using the former brickworks quarry site in the manner proposed (Chapter 2) will provide substantial economic and environmental benefits. A large proportion of the materials required for construction can be obtained from the quarry with minimal transport costs, reduced fuel use and much reduced carbon emissions. Similarly, any fill material excavated from the bypass that cannot be used for engineering works will be used for quarry restoration purposes. Both these operations will avoid the need to use local roads for access to more distant quarries in Gwynedd, or elsewhere in North Wales, will ensure that a very large numbers of journeys by heavy goods vehicles will not be required, with the result that traffic congestion on the road network will not be worsened by the haulage of fill material and vehicle emissions will not be increased on the roads that might otherwise be used.

A benefit to local residents is that restoration of the quarry and the cessation of mineral extraction will be completed well before the current planning permission for clay extract expires.

Overall cumulative impacts with other developments would be greatest during the period of bypass construction but declining once the bypass construction and quarry restoration are completed. Overall environmental impacts will be limited and temporary due to the short term nature of the proposed activity. In the medium to long term the impacts would become positive with the restored quarry contributing to the quality of amenity and to biodiversity nature conservation.

The visual impact of the bypass on receptors around the quarry will remain adverse for several years, but diminishing as proposed mitigation planting on the side of the road grows to screen views



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Cleient / Client:

JONES BROS
CIVIL ENGINEERING UK

Enw project / Project name:

ENGINEERING WORKS AND USE OF LAND RELATING TO THE CONSTRUCTION OF THE PROPOSED CAERNARFON AND BONTNEWYDD BYPASS AND EXISTING MINERALS PERMISSION

Teitl lluniad / Drawing title:

Location Of The Quarry

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