3.0 DESCRIPTION OF PROPOSED DEVELOPMENT

3.1 Introduction

This chapter has been prepared by Tom Phillips + Associates in conjunction with Kilsaran Concrete and provides a detailed description of the proposed development together with details of the existing environment.

As set out in Chapter 2 of this EIAR, the subject site is Bellewstown Quarry and proximate agricultural land in Co. Meath located in the townlands of Bellewstown, Hilltown Little, Gafney Little and Hilltown Great. The site comprises the existing rock quarry and a portion of land extending to the northeast on which it is proposed to deliver a new dedicated private quarry access road. The quarry area extends to approximately c. 39.4 hectares. The overall site size (development boundary) is 47.3 hectares, which includes an area of 7.9 hectares to accommodate the new access road to serve the quarry .

3.2 Summary of Proposed Development and Rationale

3.2.1 The Existing Quarry

The existing quarry at Bellewstown was permitted by way of substitute consent by An Bord Pleanála (Ref. No. PL17.SU0101). The continued extraction at the quarry and its expansion to the north and west of the existing void area was previously permitted by An Bord Pleanála under Ref. No. PL17.QD0013 (in accordance with section 37L of the *Planning and Development Acts, 2000* (as amended)) (hereafter referred to the 37L development).

Planning permission received under the 37L development was granted for a period of 10 years (Condition No. 3) by An Bord Pleanála on 24th October 2018. Furthermore, Condition No. 4 limited the number of Heavy Goods Vehicle (HGVs) movements per day to 32 No. loads (64 No. two-way) (versus 81 No. loads (162 No. two-way) proposed).

The development permitted under the 37L development consists of the extension of the existing quarry extraction area to c. 17.3 ha and the deepening of the quarry floor to 98mAOD using conventional blasting techniques. Extracted material is processed using mobile crushing and screening plant and stockpiled in advance of haulage. Landscaped overburden and topsoil storage/screening berms are included, together with a landscaping and rehabilitation plan to be fully implemented upon completion of quarrying. Ancillary site works permitted include a new wheelwash, a new septic tank, a new percolation area and two bunded fuel tanks.

The total volume of recoverable reserves within the permitted quarry area is estimated at between 11.0 to 11.5 million tonnes. The 37L development proposed a level of extraction of c. 450,000 tonnes per annum, giving the production life for the extraction area of 25 years, allowing for fluctuations in demand. This anticipated production level was equivalent to an average 81 No. daily truck loads.

In restricting the life of the permission to 10 years (Condition No. 3), and limiting the maximum number of HGV movements to 32 No. loads (Condition No. 4), the Board's *Order* effectively limited the extractable reserve to c. 1.8million tonnes over the 10 year period.

3.2.2 The Proposed Development

The proposed development seeks to extend the life of the current permitted quarry from 10 years to 25 years (as originally proposed 37L development) and proposes to develop a new dedicated private quarry access road to facilitate an increase in the permitted number of HGV loads to and from the quarry from a maximum of 32 No. per day to an average of 81 No. per day (with +/-15% fluctuations in the number of loads to and from the quarry proposed to address certain demands on the quarry as and when required, equating to a maximum of 93 No. loads per day).

Access to the quarry is currently provided from the local road (Mullagh Road) that runs in a north-south direction and bounds the eastern portion of the quarry site. In order overcome the Board's concerns regarding impacts on the local community, the subject development proposes the provision of a new private road, as well as new entry / exit points onto this new road, to serve the quarry. The existing quarry access / exit point will be relocated c. 25m southwards. The development will consist of the continued provision of the office, shed and car park area. In addition, to facilitate the development, it is proposed to remove existing the weighbridge and wheelwash and provide a new wheelwash closer to the new entrance to the quarry, as well as providing a new shipping office (21 sq m). An extra weighbridge will be provided, resulting in a total of 2 No. to serve the quarry. It is proposed to demolish the existing weighbridge office (29 sq m) and workshop (123 sq m). A new powerhouse (46 sq m) is proposed to facilitate a mains electricity supply for use by pumps, plant and machinery in the future. The bunded and covered fuel tanks, septic tank and percolation area permitted under the 37L development have not yet been implemented. The septic tank will be installed and commissioned to treat the wastewater from the toilet contained on the proposed new shipping office.

This new private road will reduce the impacts on the local community by redirecting the HGV traffic away from Bellewstown Village. The new road will cross the Mullagh Road and fields in a northeast direction away from the quarry. The road is approximately 1.7km long starting at the Mullagh Road and has a minimum width of c. 6m increasing to up to 9.25m wide on some internal bends. The new link road will also be used by the farmer whose lands it crosses to provided internal access to their farm for agricultural purposes. We refer to Chapter 12 of this EIAR for further detail. This road will allow an average number of 81 No. daily loads from the quarry to facilitate an extraction level of approximately 450,000 tonnes per annum. The total extraction period proposed is 25 years, with an additional year required to facilitate restoration works.

The imposition of Condition No. 3 of the Board's *Order* in relation to the 37L development came as a result of the recommendations made in the *Quarries and Ancillary Activities Guidelines for Planning Authorities*, April 2004 prepared by the Department of the Environmental, Heritage and Local Government regarding the lifespan of planning permissions. Specifically, Section 4.9 of the Guidelines states that:

> *"Where the expected life of the proposed quarry exceeds 5 years it will normally be appropriate to grant permission for a longer period (such as 10 - 20 years), particularly where major capital investment is required at the outset. In deciding the length of the planning permission, planning authorities should have regard to the expected life of the reserves within the site. The purpose of setting a finite period is not to anticipate that extraction should not continue after the expiry of that period, but rather to enable the planning authority, in conjunction with the developer and environmental authorities, to*

review changes in environmental standards and technology over a decade or more since the original permission was granted."

To address any concerns regarding the environmental impacts arising from the quarry, this EIAR provides updated Mitigation and Monitoring measures (see Chapter 16).

3.3 Planning History

A brief overview of the planning history of the quarry is provided in the following Sections.

3.3.1 Historical Overview

Bellewstown quarry commenced operation prior to 1st October 1964. The location of a quarry is clearly marked on the Ordnance Survey map from 1909 and the revision of that map made between 1958 and 1982. Activities at the quarry have continued to this day. This is illustrated by Ordnance Survey aerial photographs flown in 1973, 1995, 2000 and 2004.

Meath County Council operated the quarry in the early 1960s. The quarry was subsequently operated by a number of parties up to the time a former owner, Mr. John Gallagher purchased the quarry in 1982 and operated it from 1982 to 2006. It was purchased at auction from Mr. Gallagher by Kilsaran. Kilsaran has operated the quarry from 2006 to date.

A change made to the *Planning Acts* introduced a requirement for the owner or operators of certain quarries to apply for registration under section 261. An application for registration was made on 27th August 2004 by the then owner John Gallagher.

No conditions were issued by the Planning Authority within the statutory period under section 261.

Under Section 261A (3)(a) of the *Planning and Development Acts 2000* (as amended), Meath County Council, directed the quarry owner/operator to apply to An Bord Pleanála for substitute consent in respect of the quarry under section 177E of the *Planning and Development Acts 2000* (as amended).

3.3.2 Substitute Consent Application (ABP Ref. PL17.SU0101)

The substitute consent application was submitted to An Bord Pleanála on the 3rd June 2014 (PL17.SU0101) and was accompanied with a remedial Environmental Impact Statement and a remedial Natura Impact Statement.

An Bord Pleanála granted substitute consent in an *Order* dated 24th October 2018. (A copy of the Board's *Order* is attached at Appendix 3.2.)

3.3.3 Section 37 Planning Application (ABP Ref.PL17.QD0013)

Section 37L (of Part 21) of the *Planning Acts* made provision for applications to be made to An Bord Pleanála in conjunction with an application for substitute consent for further development of a quarry as a quarry. A Section 37L application, which included an Environmental Impact Statement (EIS) and Natura Impact Statement (NIS), was lodged with An Bord Pleanála on 14th January 2016.

The scheme proposed the horizontal and vertical extension of the quarry within the substitute consent area (ABP Ref. PL17.SU0101) and beyond into adjacent agricultural land. The development proposed comprised the extension of the existing quarry extraction area to c. 17.3 ha, the deepening of the quarry floor to 98mAOD using conventional blasting techniques, the processing of extracted material using mobile crushing and screening plant, product stockpiles, proposed landscaped overburden and topsoil storage/screening berms, landscaping and rehabilitation plan, and ancillary site works including a new wheelwash, a new septic tank and two bunded fuel tanks within a planning application area of c. 39.4 hectares. Permission was sought for a period of 25 years.

An Bord Pleanála granted permission for the development by *Order* dated 24th October 2018 subject to 18 No. conditions. Planning permission received under the 37L development was granted for a period of 10 years (Condition No. 3) by An Bord Pleanála on 24th October 2018. Notable Conditions applicable to the operation of the quarry include Condition Nos. 1, 2, 3 and 4. (A copy of the Board's *Order* is attached at Appendix 3.3.)

Condition No. 1 states:

> *"1. The development shall be carried out and completed in accordance with the plans and particulars lodged with the application submitted to An Bord Pleanála on the 14th day of January, 2016, except as may otherwise be required in order to comply with the following conditions. Where such conditions require details to be agreed with the planning authority, the developer shall agree such details in writing with the planning authority prior to commencement of development and the development shall be carried out and completed in accordance with the agreed particulars.*
>
> *Reason: In the interest of clarity."*

Condition No. 2 states:

> *"2. This grant of planning permission for further quarry development relates only to the extension of the existing quarry extraction area to 17.3 hectares and the deepening of the quarry floor to +98mOD in accordance with the details submitted with the application on the 14th day of January 2016.*
>
> *Reason: In the interest of clarity."*

To reiterate, Condition No. 3 permits a 10 year life for the quarry i.e. to 23 October 2028 (not including section 251 and section 251A of the *Planning and Development Acts, 2000* (as amended) regarding the '9-day Christmas-time extension' or the additional 56 No. days introduced for the life of each permission due to Covid-19, respectively) :

> *"3. This permission is for a period of 10 years from the date of this Order.*

Reason: In order to enable the ongoing impacts of the quarry on the environment and the amenities of the area to be reviewed. having regard to the circumstances then pertaining."

Condition No. 4 limits the number of Heavy Goods Vehicle (HGVs) load movements per day to 32 No. loads (64 No. two-way) versus 81 No. loads (162 No. two-way) proposed.

"4. The number of Heavy Goods Vehicles serving the site shall not exceed 32 loads (64 movements) per day and no more than 20 movements in any hour during each working day.

Reason: Having regard to the planning history of the site, the Board is not satisfied, based on the information provided, that the proposed traffic level (81 loads/day) can be accommodated on the local road network, in its existing condition, without excessive impacts on the amenities of the local community."

3.3.3.1 The Subject Development's Relationship with the 37L Development

The subject application seeks permission to extract the quarry for a period of 25 years, whilst seeking permission for the provision of a private access road, which will alter the access and egress route to and from the quarry to address the Board's concerns regarding traffic impacts on the local community.

The provision of the new road will allow an average of 81 No. loads per day to facilitate an extraction level of approximately 450,000 tonnes per annum, as originally sought in the Section 37L development. Extending the life of the quarry to 25 years, plus an additional year to allow for restoration, will also ensure that the full resource of the quarry is utilised.

The subject EIAR, as well as the enclosed NIS, outlines a suite of mitigation and monitoring measures that will reduce any environmental impacts arising from the quarry and all ancillary development, including the new private road. These update those measures presented in the EIS submitted with the 37L development. The mitigation measures devised in each chapter of this EIAR are presented at Chapter 16 Mitigation and Monitoring.

It is proposed, in the event of a grant of permission for the development proposed, that Kilsaran will develop and implement an Operational Mitigation Management Plan, reviewing this every 5 years up to the end of the quarry's 25 year life and submitting same with the Local Authority for agreement on a 5-yearly basis. A sample Table of Contents for this Plan is attached at Appendix 3.1. It is proposed that this Plan will document over the previous 5 years:

- History of environmental performance of the quarry;
- History of any complaints received in the previous 5 years;
- Any issues arising of note;
- Any remedial actions required to address issues arising;
- Details of new proposed mitigation and / or proposed amendments to mitigation measures to improve the environmental performance of the quarry.

3.3.4 Discharge Water Treatment Facility (An Bord Pleanála Ref. PL17.236763 and Meath County Council Reg. Ref. SA901256)

Planning permission was granted for a discharge water treatment facility to treat discharge waters from the quarry. The permission was appealed by third parties and granted by An Bord Pleanála in November 2010 subject to 7 conditions (An Bord Pleanála Ref. PL17.236763 and Meath County Council Reg. Ref. SA901256). This has been implemented on-site.

The permitted treatment facility takes water pumped directly up from the quarry sump and comprises a lined settlement pond, a Klargester oil interceptor and a fully lined constructed horizontal flow reed bed.

An Orpheus Mini Datalogger and associated housing has been installed in the discharge chamber upstream of a V notch wear. This equipment has been calibrated so that depth measurements in the chamber can be converted into flow volumes. Data is periodically downloaded from the datalogger.

3.3.4.1 Discharge Licence (Meath County Council Reg. Ref. 10/02)

After receiving the planning approval for the discharge water treatment facility Meath County Council granted Kilsaran Concrete a licence to discharge effluent arising from the quarry to surface waters (Meath County Council Reg. Ref. 10/02). This licence controls the discharge and the operation of the discharge facility, setting effluent characteristics and requiring regular monitoring and reporting.

3.4 Operation of the Project and the Proposed Development Sought in the Context of the Existing, Permitted Quarry Development

3.4.1 Volume Calculations and Duration of Development

Following extensive site investigation works, the volume of overburden and rock to be extracted from the quarry site is estimated to amount to between 11 and 11.5 million tonnes.

To reiterate, the anticipated level of extraction will be 450,000 tonnes per annum. Allowing for minor deviations from this as a result of changes in market, the production life of the proposed extraction area is 25 years. A further 1 year is being sought to facilitate restoration works.

3.4.2 Methods of Extraction

There are three broad stages in the quarrying process to produce aggregates for the construction industry:

1) Blasting of rock faces;
2) Crushing of Rock; and
3) Stockpiling of Rock.

Each of these steps is summarised below.

3.4.2.1 Blasting of Rock Faces

To extract the aggregate, the active rock face must be blasted using explosives.

The blast charges will be placed at regular intervals. It is proposed that there would be between 15 to 20 blast events per year, which equates to not more than one every two weeks. Currently, Kilsaran employs specialist blast contractors who design and carry out each blast in the quarry. All blasts at the site are subject to a specific design, which is carried out in accordance with the relevant standards, which establish best practice and safety.

Each blast is specifically designed to release a quantum of rock from the working quarry face. In this regard, a pre-determined grid of vertical holes is drilled on top of the quarry face to a required depth. The intervals between the drill holes are specifically designed having regard to the explosives to be placed within each of the holes and the depth of the rock, which is sought to be released. There are pre-determined intervals or delays in the detonation of explosives in the drilled holes. This process minimises vibration arising from the blasting and increases the efficiency with which the rock can be removed. The shot-firing of the blasts and the explosives used are monitored by the Quarry Manager.

Twenty four hours advance warning will be given to the neighbouring residences within 500m of the quarry prior to blasting and a strict safety procedure will be observed on site up to and after each blast.

It is proposed to maintain the existing on site protocol for blasting in cooperation with the blasting contractor and in accordance with current international best practice. The protocol is incorporated into the *Environmental Management System* for the quarry. The protocol considers all activities related to blasting, especially the selection of explosives (including more water-resistant forms such as slurries or emulsions), storage and handling controls, blast design considerations and loading controls.

3.4.2.2 Crushing of Rock

Once blasting has occurred, hydraulic excavators and wheel loaders feed the blasted rock into the mobile primary crusher, which is located on the quarry floor. There are two crushing stages, primary crushing and secondary crushing. Each crusher consists of a set of electrically operated rotating drums, which function to reduce the particle size of the rock to a scale that can be easily transported using belt conveyors. The primary crusher reduces the rock size to a maximum diameter of 100mm. The secondary crusher reduces the rock size to a maximum diameter of 50mm. Mobile screening units are used to screen the crushed rock into various size fractions depending on the grade of aggregate being produced.

3.4.2.3 Stockpiling of Rock

The crushed and screened rock will either be available for immediate loading onto a road haulage vehicle(s) or is stockpiled within the extractive areas and arranged according to its size. The rock will be dispatched from the site depending on customer demand.

3.4.3 Office and Facilities

There is a brick built single story office located close to the quarry entrance . Bunded fuel tanks are located southwest of this office; however, these are no longer in use. A similar but smaller building, adjacent to the weighbridge is used as the weighbridge and shipping office.

Other structures on the site include a workshop/garage and a lean-to store. It is proposed to demolish the workshop (123 sq m) as part of the proposed development. Bunded and covered fuel tanks permitted as part of the 37L development located to the west of the workshop have yet to be constructed.

A new shipping / weighbridge office (21 sq m) will be provided beside the two new weighbridges (with the existing weighbridge removed) as part of the redesign of the existing entrance area layout, and the existing weighbridge office will be demolished (29 sq m). The existing wheelwash will also be removed and replaced close to the weighbridges.

The septic tank permitted as part of the 37L development has not yet been implemented. Once installed and commissioned it will serve the new weighbridge office resulting in the existing septic tank being decommissioned.

There is a designated car parking area available for employees and visitors adjacent to the site entrance. The car park is of sufficient size to accommodate at least 30 cars.

3.4.4 Quarry Working Hours

It is proposed that the development will be operated in the same way as the existing permitted quarry operation. Rock breaking is currently not permitted prior to 08:00, in this regard, extraction and processing of rock at the quarry will take place between 08:00 and 18:00 hours on Monday to Friday and between 08:00 and 14:00 hours on Saturdays.

The 07.00 hrs start each working day facilitates the loading and haulage operation. The 07:00 start also spreads the haulage operation over the day and enables the early supply of materials to the construction industry, in line with industry demands.

No operation takes place on Sundays or Bank Holidays other than pumping, which will take place intermittently, and some occasional maintenance works.

3.4.5 Employment

Extending the life of the quarry to 25 years and increasing the number of loads that can leave the quarry per day, will secure the long term employment of seven people (Manager, Assistant Manager, one Shipper, two Shovel Drivers and two General Operatives) directly on-site, with five full-time Kilsaran Truck Drivers and up to twelve Truck Owner-Drivers associated with the aggregate haulage aspect of the development.

Therefore, the proposal will secure employment of 24 people for the duration of the extraction development i.e. 25 years.

3.4.6 Transport and Access – New Road to Facilitate an Increase in HGV Movements

An analysis of traffic associated with the development, an assessment of the scale of the impacts from the development, and a prediction of any impacts associated with the proposed development are detailed in Chapter 12, Transport and Traffic, of this EIAR.
Trucks associated with the quarry development are a mix of articulated and rigid body types. Chapter 12 lists the vehicle types that will be associated with the development.

The existing site entrance is used for access into and out of the quarry. All exiting loads are weighed on the existing weighbridge .

However, under the subject proposal, on exiting the quarry site, rather than travelling south down the Mullagh Road onto the local road in the south (referred to as Bellewstown Road), which links with the R152 in the west and the R132 in the east, the trucks will travel along a new proposed private road, the entrance to which will be on the east side of the Mullagh Road traversing existing agricultural land for c. 1.7km northeast away from the quarry, and exiting on the west side of the L1615 north of existing farm buildings. The L1615 then meets the R150 in the north.

The existing quarry access / egress point will be moved southwards and new access / egress points will be created into the agricultural fields, one at each end of the new road. Security gates and lifting barriers will be provided at each of these access / egress points ensuring that the road cannot be accessed by members of the public. Boundary fencing will also be provided at these points. In addition, an existing stone wall to the south of the east access / exit point at farm buildings will be extended to meet the new entrance / exit point.

The provision of this proposed link road will facilitate a shorter connection to the national road network and thereby also ensure that HGV's accessing Bellewstown Quarry will bypass Bellewstown village as well as the residences along the Bellewstown Road. As such, the new road will facilitate increased movements of HGVs from and to Bellewstown Quarry without resulting in negative adverse effects on the local community, thus addressing the Board's reason for attaching Condition No. 4 to the 37L development. It is anticipated that as a result of the proposed road upgrades, an increase in the number of HGV movements to an average 81 No. daily load movements (with fluctuations of +/-15% in the number of loads to and from the quarry, equating to a maximum of 93 No. loads per day proposed, taking into account given that quarries are demand driven) can be facilitated over the quarry's life of 25 years. (See Chapter 12 Traffic for further detail.)

The new private access road will also be used by the farmer whose lands it crosses to provided internal access to their farm for agricultural purposes.

The wheelwash facility is utilised at the quarry and undergoes maintenance and upgrading as required. It is proposed to remove the existing wheelwash and provide a new wheelwash aligned with traffic utilising the amended site entrance arrangements. The use of the new wheelwash before HGVs leave the site eliminates the risk of mud, grit and dust being carried from the development onto the public road. In the event of material being spilled on the public road the quarry operator will ensure that spilled material is removed from the road surface in a safe and timely manner as soon as they notice or are notified that a spillage has arisen.

Regular sweeping of the entrance area and public road in the vicinity of the entrance is employed and will continue to be so during the operation of the quarry.

3.4.6.1 Public Road Improvements

Other development works are required to facilitate the proposed development, as well as improving road infrastructure generally for the area. The Applicant has agreed these in principle with Meath County Council.

These works include proposals to improve the carriageway of the L1615 including the application of a new surface overlay on the L1615 from its junction with the R150 to the entry / exit point of the proposed link road.

A structural survey undertaken on Beaumont Bridge has revealed that strengthening and repair works are required to ensure the safe movement of all vehicles over the River Nanny on the L1615 as well as improving the carriageway over the bridge.

Chapter 12 Traffic of this EIAR describes these works in detail.

These public road works will not just facilitate the development, they will be of significant benefit to all road users by ensuring the safe use of the bridge whilst improving general road safety of the L1615.

It is proposed that these works outlined above (and referred to throughout this EIAR and accompanying NIS as "public roadworks") will be carried out by Kilsaran under licence from Meath County Council's and on the Local Authority's behalf in accordance with the *Roads Act, 1993* (as amended) in the event of a grant of permission for the proposed development. The works are assessed in the context of potential cumulative impacts in conjunction with the subject proposal in the relevant Sections of this EIAR.

3.4.6.2 Cut and Fill Arising from the Proposed Road's Construction

In constructing the proposed link road, to decrease and increase ground levels, land will need to be excavated (c. 789m^3 of materials) as well as infilled (c. 1,169m^3 of materials), respectively, as and where needed. It is intended that the any materials excavated at the site will be used to fill in areas that require it. Where additional materials are required to infill land, these will comprise 380m3 and will be obtained from the quarry. Please refer to Chapter 14 Waste which discusses this further.

3.4.7 Utilities and Services

There is an existing connection to the Electricity Supply Board's National Grid that is used to supply electrical power to the office, workshop and other ancillary installations etc.

The processing plants are powered directly from on-board generators.

A new powerhouse is proposed to facilitate a mains electric supply for use by pumps, plant and machinery in the future.

Effluent from the toilet, wash hand basins and sinks is directed via the foul sewer to the existing septic tank. Once the new septic tank is installed as per the permitted 37L

development, the services infrastructure will be redirected to the new septic tank in accordance with that permission.

Drinking water is drawn from a private well located to the northwest of the main office building.

3.4.8 Quarry Safety and Security

There are a number of safety and security measures in place for the existing quarrying operations on the subject site. The boundaries of the site are securely fenced with a mix of mature hedgerows, stonewall, chainlink and stock-proof fencing, thereby discouraging inadvertent access to the quarry. New boundaries comprising fences, walls and gates will be provided as part of the proposed development. These fences will be monitored and maintained on a regular basis as required under the *Safety, Health and Welfare at Work (Quarries) Regulations 2008*.

Soil has been used to create a physical barrier along significant sections of the site boundary and appropriate warning signs will be displayed at visible locations along the boundary at appropriate intervals.

The proposed new road will be private and only used to serve the quarry. The existing and proposed amended site entrances to the site have/will have lockable gates to prevent unauthorised access outside of the working hours. During operating hours, the gates will be unlocked and an electronic barrier system will be installed to prevent unauthorised use of the road. A closed-circuit television system (CCTV) is installed at the quarry entrance.

Upon cessation of quarrying as part of the reinstatement works a row of boulders will be placed along the eastern (potentially accessible) edge of the excavation to negate the potential for vehicles to be rolled into the quarry. An agricultural fence will be installed around the edge of the excavation, to act as a visual indicator of the edge and a physical barrier for people and animals. The road will remain and serve as agricultural access to the fields on cessation of quarry activities.

3.4.9 Lighting

Lighting is provided where necessary around the processing plants and other locations on-site to ensure safe operations during winter periods. As most activities occur below the surrounding ground level or are screened from outside views, light pollution from site activities will be minimal. There is no lighting proposed on the new dedicated road or at new entrance points.

3.4.10 Site Management

A quarry manager takes charge of the day to day running of the site with assistance from the Kilsaran Concrete management team at head office.

An Environmental Management System (EMS) has been devised for the quarry and this will outline responsibilities in terms of quarry management as well as protocols to follow with respect to the operation of the quarry.

3.5 Design and Phasing of Workings

The design and phasing of quarry extraction is as per the permitted 37L development. The planned phased extraction of rock is from three benches, ranging in height up to 18m high. A multi bench working system will provide for extraction simultaneously over a number of benches at any given time.

Access between benches and the entrance area will be provided by ramps, constructed in accordance with best practice and the relevant health and safety legislation. These drawings show indicative levels for each of the benches to demonstrate the general approach to be taken to win the rock within the quarry.

The base of excavation will be around 98m Above Ordnance Datum (AOD) this is referred to as Bench 3, therefore with an 18m face the next highest bench (Bench 2) will be quarried to an approximate level of 116m AOD, and in turn the next highest (Bench 1) which is the existing quarry floor is at an elevation of 129m AOD etc.

The location of Cross Sections A-A', B-B' and C-C' are indicated on Drawing Nos. KC2A, 2B and 2C, with the Cross Sections drawn on Drawing KC3 showing the relationship between the four benches, the existing profile, perimeter mounds and the final quarry lake.

The new private access road and associated entrances will be constructed following a grant of permission. The proposed suggested improvement works (i.e. road widening where required and applying overlay) to the L1615 will be carried out subject to a road opening licence from Meath County Council. Planting of native trees and shrubs along the length of the route is proposed in order to soften its visual impact and provide an ecological benefit. Please refer to Chapters 6 and 11 which discusses this further.

As outlined earlier in this Chapter, the proposed access road will be constructed across agricultural land and will involve the excavation and infilling of land as and where required to alter ground levels.

3.6 Growth – Potential for Future Expansion

A 25 year life for the quarry at Bellewstown, as well as the ability to draw an average 81 No. loads per day (with fluctuations of +/-15% depending on demand) as proposed in the subject development, will ensure the existing resource is fully utilised whilst also ensuring long-term security for the existing business of Kilsaran Concrete in the Leinster Area and guaranteeing that product is available for the construction industry over this time period.

3.7 Decommissioning & Rehabilitation

The cessation of commercial rock extraction at year 25 provides an opportunity to create new habitat and contribute to the promotion of biodiversity.

The restoration plan for the quarry area was permitted under the 37L development and confirmed as acceptable to the Local Authority[1] through compliance with Condition No. 15 of the 37L permission (see Appendix 3.4). It is proposed to continue to propose this Restoration Plan on cessation of the quarry. These landscaping proposals provide for the natural regeneration of vegetation in certain areas together with additional hedge and tree planting. This planting will augment existing well-established planting located on existing perimeter screening mounds to the south and east.

On cessation of the quarry at year 25, new proposed mounds will be constructed along the extended southern, western and northern limits of excavation and will be planted in accordance with the Landscaping Plan enclosed as part of this application. All hard standing areas and plant, will be removed at the end of the quarrying activities. The area of land accommodating the proposed road and entrances will remain to serve the agricultural land and for the landowner's (or the agricultural land user's) use only. As detailed in Chapter 11, the majority of the internal worked quarry faces will not be visible from outside views.

3.8 Description of Other Developments

3.8.1 Off-Site Developments

Aggregates from the quarry will be supplied to other Kilsaran Concrete facilities to be used in the manufacture of concrete and asphalt products. It is envisaged that the quarry products will be used as a raw materials' supply for national development plan projects and other infrastructural developments in the region.

3.8.2 Secondary Developments

There are no secondary developments envisaged that may arise solely as a consequence of the existence of the proposed development.

[1] As per Meath County Council email received by Kilsaran, dated 25th February 2019.

APPENDIX 3.1: SAMPLE TABLE OF CONTENTS FOR AN OPERATION MITIGATION MANAGEMENT PLAN.

1.0 Introduction

2.0 Existing quarry

3.0 History of environmental performance

4.0 History of complaints received

5.0 Issues arising

6.0 Remedial actions

7.0 New proposed mitigation and / or proposed amendments to mitigation measures to improve environmental performance

8.0 Conclusion

APPENDIX 3.2: AN BORD PLEANÁLA'S *ORDER* DATED 24TH OCTOBER 2018 IN RESPECT OF THE SUBSTITUTE CONSENT APPLICATION (ABP REF. PL17.SU0101).

An Bord Pleanála

Board Order 17.SU.0101

Planning and Development Acts 2000 to 2018

Planning Authority: Meath County Council

Planning Register Reference Number: QY2

Application for Substitute Consent by Kilsaran Concrete trading as Kilsaran Build of Piercetown, Dunboyne, County Meath in accordance with section 177E of the Planning and Development Act, 2000, as amended by the insertion on section 57 of the Planning and Development (Amendment) Act, 2010, as amended.

Location of Quarry: Mullagh, Hilltown Little, Bellewstown, County Meath.

Decision

The Board, in accordance with section 177K of the Planning and Development Act, 2000, as amended, and based on the Reasons and Considerations set out below, decided to **GRANT** substitute consent in accordance with the following conditions.

Matters Considered

In making its decision, the Board had regard to those matters to which, by virtue of the Planning and Development Acts and Regulations made thereunder, it was required to have regard. Such matters included any submissions and observations received by it in accordance with statutory provisions.

REASONS AND CONSIDERATIONS

In coming to its decision, the Board had regard to the following:

- the provisions of the Planning and Development Acts, 2000 to 2018, and in particular Part XA,
- the provisions of the Planning and Development Regulations 2001, as amended,
- the 'Quarries and Ancillary Activities, Guidelines for Planning Authorities' issued by the Department of the Environment, Heritage and Local Government, April 2004,
- the provisions of the Meath County Development Plan 2013-2019,
- the remedial Environmental Impact Statement and the remedial Natura Impact Statement submitted with the application for substitute consent, and supporting documentation,
- the reports and the opinion of the planning authority under section 177I of the 2000 Act, as amended,
- the submissions and observations made in accordance with regulations made under section 177N of the 2000 Act, as amended,
- further submissions from the applicant in response to reports/observations,
- the nature of the development the subject of this application for substitute consent, and the planning and legal history of the site,
- the pattern of development in the area, and the proximity of the site to European sites, and

- the report of the Board's inspector, including in relation to potential significant effects on the environment,

Remedial Appropriate Assessment (Screening)

The Board adopted the Screening Assessment carried out by the Inspector which concluded that the following European Site is that for which a Stage II remedial appropriate assessment is required, and that significant effects on any other European Sites can be ruled out:

River Nanny Estuary and Shore Special Protection Area (Site Code number 004158)

Remedial Appropriate Assessment (Stage II)

The Board noted that the development was not directly connected with or necessary to the management of a European Site. Having regard to the nature, scale and extent of the subject development, the remedial Natura impact statement submitted with the application and the mitigation measures contained therein, the other submissions on file and the Inspector's assessment, the Board completed a remedial Appropriate Assessment of the effects of the development on the aforementioned European site. The Board concluded that, on the basis of the information available, the subject development, either individually or in combination with other plans or projects, would not have adversely affected the integrity of the listed European Site or any other European site, in view of the site's Conservation Objectives. In reaching this conclusion the Board adopted the Inspector's report.

Remedial Environmental Impact Assessment

The Board considered that the remedial Environmental Impact Statement submitted with the application, the report, assessment and conclusions of the Inspector with regard to this file and other submissions on file, was adequate in identifying and describing the direct and indirect effects of the development. The Board completed a remedial environmental impact assessment. In doing so, the Board concurred with the Inspector's findings in relation to the majority of the topics in his assessment, and agreed with his conclusions on the acceptability of the mitigation measures proposed and residual effects with the exception of his final conclusions in relation to material assets (archaeology), and impacts on the local community (by reason of traffic and air quality/ noise impacts).

With respect to air quality and noise the Board agreed that the largely 'compliant' nature of ongoing environmental monitoring presented in the remedial Environmental Impact Statement had to be balanced against the observer submissions which recorded a more negative situation for local residents. Similarly, having considered the observer submissions, the Board tended to agree with the Inspector that the intensity of traffic impacts during the peak quarry output was more significant than depicted in the remedial Environmental Impact Statement.

Whereas the Inspector ultimately concluded that these impacts were so significant as to be unacceptable, the Board did not consider that the impacts were so severe as to merit a refusal of substitute consent.

The Board concluded that, subject to the implementation of the mitigation measures proposed, the development would not have been likely to have had unacceptable adverse impacts on the environment and subject to the following conditions, the effect of the development on the environment would be acceptable and would be in accordance with the proper planning and sustainable development of the area.

In deciding not to accept the Inspector's recommendation to refuse substitute consent on the basis of archaeology and impacts on the local community, the Board's considerations were as follows:

Archaeology: The Board noted that the recorded monument removed from the site was excavated in 2007 under licence from the National Monuments Section of the Department of Environment, Heritage and Local Government and was preserved by record. The record of the excavation and description of the monument formed part of the remedial Environmental Impact Statement. There was no objection to the subject application for substitute consent by the Department. The removal of the monument in these circumstances, where impacts were mitigated by the licensed recording, was not considered a basis for refusing substitute consent.

Impacts on local community: The substitute consent relates to quarrying undertaken over the period 1990–2013. The Board accepted that for a particular period of intense activity at the quarry – generally speaking between 2006 and 2009 - the local community experienced negative impacts owing to quarry traffic, dust and associated noise and general disturbance. However, taking into account the planning/legal history of the site, the pattern of development in the area, the policies of the County Development Plan and the tied nature of the resource, the Board did not consider that these impacts would be unacceptable or would merit refusal of substitute consent.

CONDITIONS

1. (a) This grant of substitute consent shall be in accordance with the plans and particulars submitted to An Bord Pleanála with the application for substitute consent and in the further particulars submitted to An Bord Pleanála on 3rd day of June 2014, except as may otherwise be required in order to comply with the following conditions.

(b) This grant of substitute consent relates only to development undertaken on a quarry area of 8.1 hectares (identified as 'Current Extracted Area 8.1 hectares' on drawing number Figure 3.1 'Site Layout Plan' forming part of the remedial Environmental Impact Statement), as described in the application, and does not authorise any future development, including excavation, on this site.

Reason: In the interest of clarity.

2. All mitigation measures identified within the remedial Environmental Impact Statement and remedial Natura impact statement and associated documentation shall be implemented in full, save as may be required to comply with the conditions set out below.

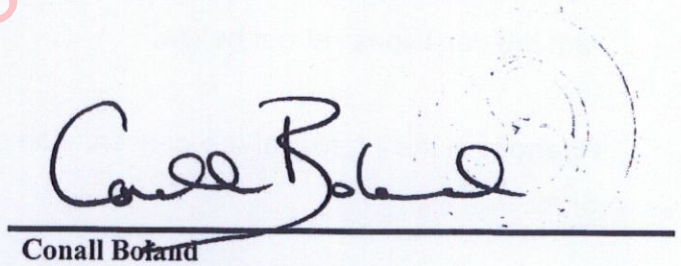
Reason: In the interest of the conservation of the environment and of European Sites.

3. Unless a permission for the further development of this quarry is implemented, implementation-stage details of the restoration of the quarry shall be submitted to and agreed in writing with the planning authority within six months of the date of this Order. The scheme shall be generally in accordance with the approach proposed in Chapter 11 of the remedial Environmental Impact Statement. Details of site safety measures shall be provided. A timescale for implementation and proposals for an aftercare programme shall be agreed in writing with the planning authority.

Reason: In the interest of the visual amenities of the area, to ensure public safety and to ensure that the quarry restoration protects water quality.

4. Unless a permission for the further development of this quarry is implemented, within six months of the date of this Order, the developer shall lodge with the planning authority a cash deposit, a bond of an insurance company, or such other security acceptable to the planning authority to secure the provision and satisfactory restoration of the site, coupled with an agreement empowering the planning authority to apply such security or part thereof to the satisfactory restoration of any part of the site. The form and amount of the security shall be as agreed between the planning authority and the developer or, in default of agreement, shall be referred to An Bord Pleanála for determination.

Reason: To ensure the satisfactory restoration of this site in the interest of visual amenity.



Conall Boland
Member of An Bord Pleanála
duly authorised to authenticate
the seal of the Board.

Dated this 26th **day of** October **2018**

An Bord Pleanála

CERTIFICATE OF EXPENSES

Recoupment of Costs and Expenses under Section 177M of the 2000 Act, as amended

Case Number: 17.SU.0101

Title of Case: Quarry at Mullagh, Hilltown Little, Bellewstown, Co Meath

Applicant: Kilsaran Concrete

Income	€
Application Fee	11,750.00
Submission: no fee payable	N/A
Total Income:	**11,750.00**

Costs & Expenses	€
Operational Costs: Board Hours x Overhead costs: 75hours x €222 per hour	16,650.00
Other Costs: (Oral Hearing Venue, Recording etc)	**N/A**
Consultant:	**N/A**
Total Costs & Expenses less Income:	**4,900.00**

Planning Authority Expenses/Costs:	**Nil**

I certify that the costs and expenses set out above are accurate and are the costs and expenses incurred by An Bord Pleanála/planning authority in determining the matter.

Applicant to recoup to the Board €4,900.00 *(Nil to PA)

Signed: _____
Head of Finance

Date: 18/12/2014

* As per An Bord Pleanála General Policy on Approach to Substitute Consent Costs under section 177M of the Planning and Development Act, 2000, as amended.

An Bord Pleanála General Policy on Approach to Substitute Consent Costs under Section 177M of the Planning and Development Act, 2000 as amended.

The following general principles have been adopted by An Bord Pleanála in respect of its approach to costs arising on relevant applications for substitute consent under section 177K of the Planning and Development Act, 2000 as amended, subject to the proviso that the Board reserves the right to depart from the policy in the exercise of its discretion where it considers that the particular circumstances in any case warrant a different approach.

1. Having regard to the statutory provisions in relation to costs as set out at section 177M of the Planning and Development Act, 2000 as amended, An Bord Pleanála will generally seek to recover its costs where these costs exceed the application fee already paid but generally only up to a maximum **total** payment by an applicant of double the relevant application fee (the application fee paid being off-set against the overall costs). An Bord Pleanála considers this to be a reasonable approach as it enables recovery of some or all of its costs but also considers that it is appropriate in these cases that a limitation on costs exposure on applicants is applied.

2. Claims for planning authority costs will be assessed on a case by case basis and the Board will only award planning authority costs to a level that the Board in exercise of its absolute discretion considers to be reasonable costs.

Conall Boland
Deputy Chairperson
An Bord Pleanála
20th **March, 2014.**

APPENDIX 3.3: AN BORD PLEANÁLA'S *ORDER* DATED 24TH OCTOBER 2018, AND THE ADDITIONAL ORDER (CORRECTING THE WORDING OF CONDITION NO. 2) IN RESPECT OF THE SECTION 37L APPLICATION (ABP REF. PL17.QD0013).

An Bord Pleanála

Board Order
17.QD.0013

Planning and Development Acts 2000 to 2018

Planning Authority: Meath County Council

Planning Register Reference Number: QY2

Associated Substitute Consent Reference Number: 17.SU.0101

WHEREAS Kilsaran Concrete trading as Kilsaran Build of Piercetown, Dunboyne, County Meath made an application to An Bord Pleanála on the 14th day of January, 2016, pursuant to section 37L of the Planning and Development Act, 2000 as amended, to further develop a quarry at Hilltown Little and Bellewstown Townland, Bellewstown, County Meath in accordance with plans and particulars lodged with the Board.

NOW THEREFORE, the Board has decided, pursuant to section 37N of the said Act, to **GRANT** permission to further develop the quarry, subject to conditions, and based on the Reasons and Considerations set out below.

Reasons and Considerations

In making its decision the Board had regard, inter alia, to the following:

(a) the provisions of the Planning and Development Act, 2000, as amended, and in particular Section 37L,

(b) the 'Quarry and Ancillary Activities, Guidelines for Planning Authorities' issued by the Department of the Environment, Heritage and Local Government in April 2004,

(c) the provisions of the Meath County Development Plan, 2013-2019,

(d) the Environmental Impact Statement submitted with the application for further development,

(e) the Natura impact statement submitted with the application for further development,

(f) the report and the opinion of the planning authority under section 37L(12)(a) of the 2000 Act, as amended,

(g) the submissions made in accordance with regulations made under Article 270 of the Planning and Development (Amendment)(No.2 Regulations 2015,

(h) the report of the Board's Inspector, including in relation to potential significant effects on the environment,

(i) the planning history of the site,

(j) the pattern of development in the area,

(k) the details contained within the application for substitute consent on the site, reference number 17.SU.0101, and

(l) the nature and scale of the development the subject of this application for further development.

Appropriate Assessment (Screening)

The Board adopted the Screening Assessment carried out by the Inspector which concluded that the following European Site is that for which a Stage II appropriate assessment is required, and that significant effects on any other European Sites can be ruled out:

River Nanny Estuary and Shore Special Protection Area (Site Code 004158)

Appropriate Assessment (Stage II)

The Board noted that the development was not directly connected with or necessary to the management of a European Site. Having regard to the nature, scale and extent of the subject development, the Natura impact statement submitted with the application and the mitigation measures contained therein, the other submissions on file and the Inspector's assessment, the Board completed an Appropriate Assessment of the effects of the development on the aforementioned European site. The Board concluded that, on the basis of the information available, the subject development, either individually or in combination with other plans or projects, would not adversely affect the integrity of the listed European Site or any other European site, in view of the site's Conservation Objectives. In reaching this conclusion the Board adopted the Inspector's report.

Environmental Impact Assessment

The Board completed an Environmental Impact Assessment in relation to the subject development and concluded that the Environmental Impact Statement submitted identified and described adequately the direct and indirect effects on the environment of the proposed development.

The Board considered that the Inspector's report was satisfactory in addressing the environmental effects of the subject development and also agreed with its conclusions in relation to the acceptability of development measures proposed and residual effects. The Board also considered that a 10-year time limit on the permission was reasonable given the history of the facility, and would enable a review of the ongoing environmental impacts of the operation of the facility. Subject to compliance with conditions, it was considered that development would not be likely to have unacceptable impacts on the environment.

Conclusion

Having regard to the provisions of the current development plan for the area, the planning history of this established quarry enterprise, and the acceptability of the environmental impacts as set out above, it is considered that, subject to compliance with the conditions set out below, the proposed development would not seriously injure the amenities of the area or of property in the vicinity, would be acceptable in terms of traffic safety and convenience of road users, would not be prejudicial to public health and would be in accordance with the proper planning and sustainable development of the area.

Conditions

1. The development shall be carried out and completed in accordance with the plans and particulars lodged with the application submitted to An Bord Pleanála on the 14th day of January, 2016, except as may otherwise be required in order to comply with the following conditions. Where such conditions require details to be agreed with the planning authority, the developer shall agree such details in writing with the planning authority prior to commencement of development and the development shall be carried out and completed in accordance with the agreed particulars.

   Reason: In the interest of clarity.

2. This grant of planning permission for further quarry development relates only to the extension of the existing quarry extraction area to 17.3 hectares and the deepening of the quarry floor to +89mOD in accordance with the details submitted with the application on the 14th day of January 2016.

   Reason: In the interest of clarity.

3. This permission is for a period of 10 years from the date of this Order.

   Reason: In order to enable the ongoing impacts of the quarry on the environment and the amenities of the area to be reviewed, having regard to the circumstances then pertaining.

4. The number of Heavy Goods Vehicles serving the site shall not exceed 32 loads (64 movements) per day and no more than 20 movements in any hour during each working day.

Reason: Having regard to the planning history of the site, the Board is not satisfied, based on the information provided, that the proposed traffic level (81 loads/day) can be accommodated on the local road network, in its existing condition, without excessive impacts on the amenities of the local community.

5. The quarry, and all activities occurring therein, shall only operate between 0700 hours and 1800 hours, Monday to Friday and between 0700 hours and 1400 hours on Saturdays. No activity shall take place outside these hours or on Sundays or public holidays. No rock-breaking activity shall be undertaken within any part of the site before 0800 hours on any day.

Reason: In order to protect the amenities of property in the vicinity.

6. The mitigation and monitoring measures outlined in the Environmental Impact Statement and the Natura Impact Statement submitted with this application, shall be carried out in full, except where otherwise required by condition attached to this permission.

Reason: In the interest of protecting the environment and in the interest of public health.

7. (a) The developer shall monitor and record groundwater, surface water flow, noise, ground vibration, and dust deposition levels at monitoring and recording stations, the location of which shall be submitted to and agreed in writing with the planning authority within three months of the date of this Order. Monitoring results shall be submitted to the planning authority at monthly intervals for groundwater, surface water, noise and ground vibration.

(b) On an annual basis, for the lifetime of the facility and within two months of each year end, the developer shall submit to the planning authority five copies of an environmental audit. Independent environmental auditors approved in writing by the planning authority shall carry out this audit. This audit shall be carried out at the expense of the developer and shall be made available for public inspection at the offices of the planning authority and at such other locations as may be agreed in writing with the authority. This report shall contain:

(i) A written record derived from the on-site weighbridge of the quantity of material leaving the site. This quantity shall be specified in tonnes.

(ii) An annual topographical survey carried out by an independent qualified surveyor approved in writing by the planning authority. This survey shall show all areas excavated and restored. On the basis of this a full materials balance shall be provided to the planning authority.

(iii) A record of groundwater levels measured at monthly intervals.

(iv) A written record of all complaints, including actions taken in response to each complaint.

(c) In addition to this annual audit, the developer shall submit quarterly reports with full records of dust monitoring, noise and vibration monitoring, surface water quality monitoring, and groundwater monitoring. Details of such information shall be agreed in writing with the planning authority. Notwithstanding this requirement, all incidents where levels of noise or dust exceed specified levels shall be notified to the planning authority within two working days. Incidents of surface or groundwater pollution or incidents that may result in groundwater pollution, shall be notified to the planning authority without delay.

(d) Following submission of the audit or of such reports, or where such incidents occur, the developer shall comply with any requirements that the planning authority may impose in writing in order to bring the development in compliance with the conditions of this permission.

Reason: In the interest of protecting residential amenities and ensuring a sustainable use of non-renewable resources.

8. Prior to commencement of development, a traffic management plan shall be submitted to the planning authority for written agreement relating to the control and management of quarry traffic access to the site. This shall include the following traffic management arrangements and works which shall be implemented and maintained during the life of the quarry operation –

(a) Provisions ensuring that:

(i) vehicles transporting material to and from the site, and accessing the site, use the Mullagh Road running southwards from the quarry only.

(ii) All HGV movements to and from the quarry operation are undertaken within the hours of operation of the quarry.

(b) Provision of road signage, warning the public of the entrance and of proposals for traffic management at the site entrance,

Reason: In the interests of traffic safety and orderly development, and to protect the amenities of the area.

9. During the operational phase of the proposed development, the noise level from within the boundaries of the site measured at noise sensitive locations in the vicinity, shall not exceed-

(a) an L_{ArT} value of 55 dB(A) during 0700-1800 hours. The T value shall be one hour.

(b) an L_{AeqT} value of 45 dB(A) at any other time. The T value shall be 15 minutes.

Reason: In order to protect the residential amenities of property in the vicinity.

10. (a) Blasting operations shall take place only between 1000 hours and 1700 hours, Monday to Friday, and shall not take place on Saturdays, Sundays or public holidays. Monitoring of the noise and vibration arising from blasting and the frequency of such blasting shall be carried out at the developer's expense by an independent contractor who shall be agreed in writing with the planning authority.

(b) Prior to the firing of any blast, the developer shall give notice of his intention to the occupiers of all dwellings within 500 metres of the site. An audible alarm for a minimum period of one minute shall be sounded. This alarm shall be of sufficient power to be heard at all such dwellings.

Reason: In the interests of public safety and residential amenity.

11. Vibration levels from blasting shall not exceed a peak particle velocity of 12 millimetres/second, when measured in any three mutually orthogonal directions at any sensitive location. The peak particle velocity relates to low frequency vibration of less than 40 hertz where blasting occurs no more than once in seven continuous days. Where blasting operations are more frequent, the peak particle velocity limit is reduced to eight millimetres per second. Blasting shall not give rise to air overpressure values at sensitive locations which are in excess of 125 dB (Lin)max peak with a 95% confidence limit. No individual air overpressure value shall exceed the limit value by more than 5 dB (Lin).

Reason: To protect the residential amenity of property in the vicinity.

12. Dust levels at the site boundary shall not exceed 350 milligrams per square metre per day averaged over a continuous period of 30 days (Bergerhoff Gauge).

Reason: To control dust emissions arising from the development and in the interest of the amenity of the area.

13. The developer shall facilitate the archaeological monitoring of topsoil stripping within the quarry expansion area. In this regard, the developer shall –

(a) notify the planning authority in writing at least four weeks prior to the commencement of any site operation (including hydrological and geotechnical investigations) relating to the proposed development,

(b) employ a suitably-qualified archaeologist who shall monitor all site investigations and other excavation works, and

(c) provide arrangements, acceptable to the planning authority, for the recording and for the removal of any archaeological material which the authority considers appropriate to remove.

In default of agreement on any of these requirements, the matter shall be referred to An Bord Pleanála for determination.

Reason: In order to conserve the archaeological heritage of the site and to secure the preservation and protection of any remains that may exist within the site.

14. Prior to commencement of development, the developer shall establish a local consultative group, including representatives of the developer, the planning authority and members and representatives of the local community. This group shall constitute a forum to address operational issues of the quarry which are considered to impact upon local amenity.

Reason: In the interest of the protection of local amenities and to enhance communication with the local community.

15. Restoration shall be carried out in accordance with a restoration plan, which shall include existing and proposed finished ground levels, landscaping proposals and a timescale for implementation. This plan shall be prepared by the developer, and shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development.

Reason: To ensure the satisfactory restoration of the site, in the interest of visual amenity.

16. The developer shall pay to the planning authority a financial contribution as a special contribution under section 48(2) (c) of the Planning and Development Act 2000 in respect of the repair and improvement of the public road between the quarry entrance and the Mullagh Cross Roads, generally in accordance with the mitigation measures set out in section 13.4.7 of the Environmental Impact Statement "Specific Road Improvement Measures – Mullagh Road". The amount of the contribution shall be agreed between the planning authority and the developer or, in default of such agreement, the matter shall be referred to An Bord Pleanála for determination. The contribution shall be paid prior to commencement of development or in such phased payments as the planning authority may facilitate and shall be updated at the time of payment in accordance with changes in the Wholesale Price Index – Building and Construction (Capital Goods), published by the Central Statistics Office.

Reason: In the interest of road safety and orderly development and it is considered reasonable that the developer should contribute towards the specific exceptional costs which are incurred by the planning authority which are not covered in the Development Contribution Scheme and which will benefit the proposed development.

17. The developer shall pay to the planning authority a financial contribution in respect of public infrastructure and facilities benefiting development in the area of the planning authority that is provided or intended to be provided by or on behalf of the authority in accordance with the terms of the Development Contribution Scheme made under section 48 of the Planning and Development Act 2000. The contribution shall be paid prior to the commencement of development or in such phased payments as the planning authority may facilitate and shall be subject to any applicable indexation provisions of the Scheme at the time of payment. Details of the application of the terms of the Scheme shall be agreed between the planning authority and the developer or, in default of such agreement, the matter shall be referred to the Board to determine the proper application of the terms of the Scheme.

Reason: It is a requirement of the Planning and Development Act 2000 that a condition requiring a contribution in accordance with the Development Contribution Scheme made under section 48 of the Act be applied to the permission.

18. Prior to commencement of development, the developer shall lodge with the planning authority a cash deposit, a bond of an insurance company, or such other security as may be acceptable to the planning authority, to secure the satisfactory reinstatement of the site, coupled with an agreement empowering the planning authority to apply such security or part thereof to such reinstatement. The form and amount of the security shall be as agreed between the planning authority and the developer or, in default of agreement, shall be referred to An Bord Pleanála for determination.

Reason: To ensure the satisfactory restoration of the site.

Matters Considered

In making its decision, the Board had regard to those matters to which, by virtue of the Planning and Development Acts and Regulations made thereunder, it was required to have regard. Such matters included any submissions and observations received by it in accordance with statutory provisions.

Conall Boland
Member of An Bord Pleanála
duly authorised to authenticate
the seal of the Board.

Dated this 24th **day of** October **2018**

An Bord Pleanála

Board Order
17.QD.0013

Planning and Development Acts 2000 to 2019

Amendment of Board Order

Planning Authority: Meath County Council

Planning Register Reference Number: QY2

Development Concerned: To further develop a quarry at Hilltown Little and Bellewstown Townland, Bellewstown, County Meath.

WHEREAS the Board made a decision to grant permission to further develop the quarry, subject to conditions, in relation to the above-mentioned development by Order dated the 24th day of October, 2018:

AND WHEREAS it has come to the attention of the Board that due to a clerical error the reference in condition number 2 to +89mOD is incorrect,

AND WHEREAS the Board considered that the correction of the above-mentioned error would not result in a material alteration of the terms of the decision,

AND WHEREAS having regard to the nature of the issue involved, the Board decided not to invite submissions in relation to the matter from persons who had made submissions or observations in relation to the application the subject of this amendment,

NOW THEREFORE in accordance with section 146A(1) of the Planning and Development Act 2000, as amended, the Board hereby amends the above-mentioned decision so that condition number 2 of its Order and the reason therefor shall be as follows:

2. This grant of planning permission for further quarry development relates only to the extension of the existing quarry extraction area to 17.3 hectares and the deepening of the quarry floor to +98mOD in accordance with the details submitted with the application on the 14th day of January 2016.

Reason: In the interest of clarity.

Chris McGarry
Member of An Bord Pleanála
duly authorised to authenticate
the seal of the Board.

Dated this day of 2019

APPENDIX 3.4: APPROVED QUARRY RESTORATION PLAN, DATED JANUARY 2019.

QUARRY AT HILLTOWN LITTLE AND BELLEWSTOWN TOWNLANDS:

RESTORATION SCHEME

Compliance with Condition 15 of

ABP P.Ref. QD 17.QD0013

Prepared for: Kilsaran Concrete

SLR Ref: 00036.00075_R_Bellewstown Restoration Scheme
Version No: 1
January / 2019

SLR

BASIS OF REPORT

This document has been prepared by SLR Consulting Ireland with reasonable skill, care and diligence, and taking account of the manpower, timescales and resources devoted to it by agreement with Kilsaran Concrete (the Client) as part or all of the services it has been appointed by the Client to carry out. It is subject to the terms and conditions of that appointment.

SLR shall not be liable for the use of or reliance on any information, advice, recommendations and opinions in this document for any purpose by any person other than the Client. Reliance may be granted to a third party only in the event that SLR and the third party have executed a reliance agreement or collateral warranty.

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Information, advice, recommendations and opinions in this document should only be relied upon in the context of the whole document and any documents referenced explicitly herein and should then only be used within the context of the appointment.

CONTENTS

DOCUMENT REFERENCES

TABLES

APPENDICES

Appendix 01: Drawing PC1 – Restoration Plan
Drawing PC2 – Restoration Sections

1.0 Introduction

This document was prepared in compliance with condition no. 15 attached to the grant of permission by An Bord Pleanala, pursuant to section 37L of the Planning and Development Act, 2000 as amended, for the further development of the existing quarry at Hilltown Little and Bellewstown Townland, Co. Meath (ABP P.Ref. QD 17.QD.0013).

Condition 15 is stated in full below, with references to the relevant sections in this document in bold, for each of the requirements listed. **Please also refer to Drawing PC1 – Restoration Plan and Drawing PC2 – Restoration Sections, in Appendix 01 of this document.**

1.1 Condition No. 15

"Restoration shall be carried out in accordance with a restoration plan **(→ Refer to Section 2.0 below and Drawing PC1)**, *which shall include existing and proposed finished ground levels* **(→ Refer to Refer to Section 2.1 below and Drawing PC2)**, *landscaping proposals* **(→ Refer to Sections 2.2, 3.0 and 4.0 below)** *and a timescale for implementation* **(→ Refer to Section 2.3 below)**. *This plan shall be prepared by the developer* **(→ Refer to Section 1.2 below)**, *and shall be submitted to and agreed in writing with, the planning authority prior to commencement of development.*

***Reason**: To ensure the satisfactory restoration of the site, in the interest of visual amenity.*

1.2 Author

This Restoration Scheme and the associated Restoration Plan and Restoration Sections (refer to **Drawings PC1 and PC2 in Appendix 01**) were prepared on behalf of Kilsaran Concrete by Anne Merkle, an Associate Landscape Architect with SLR Consulting Ireland. Anne has over 15 years' experience of working for landscape consultancies in Ireland and is a full corporate member of the Irish Landscape Institute, since 2005.

2.0 Restoration Plan

In compliance with condition 15 (refer to section 1.1 above) a Restoration Plan was prepared (Drawing PC1). This can be found in Appendix 01 of this document.

The aim of the proposed Restoration Plan is to provide continued screening of the quarry development and to restore the site to a beneficial natural habitat afteruse on completion of all extraction works, as well as keeping the site secure from unauthorised access at all times.

2.1 Existing and Proposed Ground Levels

Drawing PC1, the Restoration Plan shows the proposed ground levels, on completion of the 10 year permission period. At this point, the full quarry footprint will be set and it is anticipated that the entire quarry floor will have been lowered to a level of 98m AOD (above Ordnance Datum). The extraction works will be carried out in two phases, first increasing the quarry footprint in a northern direction (Phase 1) and then increasing the footprint in a western direction and slightly further to the north (Phase 2). The extent of the two extraction phases, as well as the existing extraction footprint is indicated on **Drawing PC1**.

How the proposed ground levels compare to the existing ground levels is illustrated by the Restoration Sections (**Drawing PC2**, in Appendix 01 of this document). The existing ground levels are indicated by a black dotted line on these sections.

2.2 Landscaping Proposals

The landscaping proposals included in the Restoration Plan (**Drawing PC1**) are based on the drawings submitted with the S37L application (ABP P.Ref. QD 17.QD.0013).

The reasoning for the main landscaping elements is provided below. Further details with regard to the establishment techniques and aftercare proposals for the relevant soft landscape elements are provided in sections 3.0 and 4.0 of this document:

2.2.1 Screening Berms / Overburden Storage Areas

The overburden stripped from the extended extraction area will be firstly used to construct screening berms along the northern and western site boundaries. These berms will ensure that the extraction works will be almost fully screened in views from locations to the north and west, in particular in combination with the proposed woodland screen planting (see below). Any additional overburden material will be stored in a field to the north of the quarry void.

All topsoil and subsoil will be handled separately. The topsoil will be stripped first and temporarily stored within the site. Once the screening berms/overburden storage area are constructed using subsoils, the topsoil will be spread over the surface, to provide a suitable growing medium for the proposed woodland screen planting and grass seeding (see below).

All earthworks will be carried out in suitable weather conditions and in accordance with current best practice guidance.

2.2.2 Woodland Screen Planting

Woodland Screen planting will be carried out on the outward facing slopes of the proposed screening berms and the overburden storage area, as soon as suitably large sections of the earthworks are completed. This planting will soften the appearance of the screening berms, as well as provide erosion control.

Woodland planting will be also carried out in a number of other locations along the site boundaries and on the quarry benches surrounding the future quarry lake. This planting will provide additional screening and support the natural regeneration of the remainder of the quarry site.

The proposed Woodland Screening Mix is described in section 3.2.1 below. With the exception of beech, all species proposed are native to Ireland. Beech is included in the mix, as this species is typically present in this part of Co. Meath. All plants are specified as 60-90cm tall transplants, as this type of stock is known to establish more readily than larger stock. If possible, the stock will be Irish grown and sourced locally.

Please refer to sections 3.0 and 4.0 below for further information on the establishment techniques and aftercare proposals for the woodland screen planting.

It should be noted that it was not found necessary to carry out additional planting along the southern and eastern site boundaries, as the existing woodland and hedgerow vegetation provides a dense and tall screen in these areas.

2.2.3 Grass seeding

On completion of each section of the screening berms and the overburden storage area and associated woodland screen planting, the remainder of these berms/area will be grass seeded, using a suitable agricultural or amenity grassland mix. This will further aid erosion control, as well as help these parts of the site regain vegetation cover in a timely manner.

Please refer to sections 3.0 and 4.0 below for further information on the establishment techniques and aftercare proposals for the grassed areas.

2.2.4 Quarry Lake

On completion of the extraction works the quarry void will be left to naturally fill with water. The rebound water level will be at approximately 125m AOD. The resultant waterbody will provide a valuable wetland habitat.

2.2.5 Natural Regeneration

All areas surrounding the quarry lake and not covered by woodland planting or grass seeding will be cleared from plant, machinery and stockpiles. Where feasible, these areas will be deep-ripped to de-compact the existing ground and thereby provide suitable conditions for the natural recolonisation by locally occurring grass and scrub species. Such natural regeneration is already successfully taking place inside the southern site boundary and is therefore considered a suitable restoration tool, likely to result in valuable natural habitats.

2.2.6 Geological Heritage Access and Information

An access track will be constructed, encircling the entire quarry void to allow access to the geological interest area along the southern quarry face and to the wider site for inspection, amenity and wildlife observation. In addition, Geological Heritage Information boards will be installed at the site entrance and at an appropriate location along the southern quarry face.

2.2.7 Site Security

The entire quarry boundary is and will continue to be securely fenced to prevent unauthorised access.

The lockable palisade gates and palisade fencing at the site entrance will be retained on completion of the extraction works. The eastern & southern site boundaries are secured by existing chain-link fencing. The northern boundary is secured by existing stock proof fencing. The new western boundary will be secured with a proposed stock proof fence, prior to the extraction works being moved beyond the existing western boundary,

which is currently secured by existing stock proof fencing. All fencing will be inspected and maintained on a regular basis.

In addition to the fencing, the existing woodland vegetation and hedging on the site boundaries will be allowed to flourish, which will act as a natural barrier.

On completion of the extraction and restoration works, arrangements will be made for interested parties to get access to the quarry site to view the areas of geological interest and/or for wildlife observation.

2.3 Timescale for Implementation

The proposed extraction and restoration works will be carried out in two phases, as described further below:

2.3.1 Extraction/Restoration Phase 1

The first phase of the extraction and restoration works will be completed **within 4 years from the commencement of the development**. The Restoration works included in this Phase are:

- Construction of screening berm in the north-eastern corner of the quarry site, using the material stripped from the Phase 1 Extraction area.
- Woodland Screen Planting on the outer slopes of the new screening berm, as well as along parts of the northern site boundary.
- Grass seeding of those parts of the screening berm not covered by woodland planting.

2.3.2 Extraction/Restoration Phase 2

The second phase of the extraction and restoration works will be completed **within 10 years from the commencement of the development**. The Restoration works included in this Phase are:

- Construction of a stock proof fence along the new western site boundary.
- Construction of screening berms inside the new western site boundary, using the material stripped from the Phase 2 Extraction area, as well as the construction of the overburden storage area to the north of the site with any additional material.
- Woodland Screen Planting on the outer slopes of the new screening berms and overburden storage area, as well as in a number of locations surrounding the quarry void.
- Grass seeding of those parts of the screening berms/overburden storage area not covered by woodland planting.
- Clearing of the entire extraction and processing area from plant, machinery and stockpiles; leaving the quarry void to flood naturally and the surrounding areas for natural regeneration.
- Construction of an access track encircling the site and installation of Geological Heritage Information Boards.

3.0 Establishment Techniques

3.1 Grass seeding

It is proposed that all parts of the screening berms and overburden storage area, which will not be covered with woodland screen planting, will be grass-seeded, using a suitable agricultural or amenity grassland mix.

Final cultivations will include raking the seeding area with a chain harrow, drag mat or hand rake to form a true, even surface, suitable for subsequent maintenance by mechanical blade trimming and extending the cultivation into any adjacent existing areas to ensure full marrying in of levels and to achieve a fine tilth.

The seed mixture will be evenly sown, in calm weather, at an appropriate time of year (for example September) to the rate recommended by the manufacturer. After sowing the surface will then be rolled, for example with a Cambridge roller, to ensure a good contact between soil and seed.

3.2 Planting works

All woodland planting will be carried out in the earliest available planting season (November – March), following the completion of each section of the earthworks.

All plants will be well-grown nursery stock, in accordance with BS 3936-1:1992 'Nursery Stock – Part 1: Specification for trees and shrubs', to the sizes, species and percentages detailed in Tables 4-1, 4-2 & 4-3 below. All site preparation, plant handling and planting operations will comply with BS 4428:1989 'Code of practice for general landscape operations (excluding had surfaces)'. All species will be derived from stock of Irish provenance, if possible.

All transplants would be notch planted as necessary to accommodate all of the root system. The container grown plants would be planted using a spear to create a pit, using a twisting motion to prevent smearing. The plug could then be inserted ensuring contact with the sides, with a second insertion of the spear to ensure adequate firming. When planted, the top of the root collar must be level with the surrounding soil surface and the ground around the plant will be firmed in by treading, taking care to avoid scuffing or damage. On no account shall any roots be left exposed or bent.

All transplants will be individually protected by 0.6m height translucent plastic spiral guards supported by a single stout cane of 1m length driven 0.45m into the ground. Holly (Ilex aquifolium) will be protected by 0.75m height plastic mesh Netlon guard, twice fixed by ratchet ties to 0.32m x 0.32m x 0.9m timber stakes driven 0.45m into the ground. Alternatively, if the surrounding site is to be managed by livestock grazing the planted areas may be protected by stock-proof fencing with individual guards omitted.

3.2.1 Woodland Screen Mix

The trees/shrubs will be planted at 2m centres (i.e. 1 plant per 4m^2). Considering the total planting area of 23,200m^2, a total of 5,800 plants will be required (Phase 1: 1,900 plants; Phase 2: 3,900 plants). Transplants to be planted randomly in same species groups of 3-5 plants.

Table 3-1
Woodland Screening Mix.

No.	Plant Name	Common Name	Height (cm)	Age/Pot Size	%
Transplants / Container Grown Shrubs					
580	Alnus glutinosa	Common Alder	60-90	1+1	10
1160	Corylus avellana	Hazel	60-90	1+0	20
1160	Crataegus monogyna	Hawthorn	60-90	1+1	20
580	Fagus sylvatica	Beech	60-80	1+2	10
580	Ilex aquifolium	Holly	60-80	2L	10
1160	Prunus spinosa	Blackthorn	60-90	1+0	20
580	Quercus petraea	Sessile oak	60-90	1+1	10

4.0 Aftercare

4.1 Grassland

The establishment of the grassland areas will be monitored as part of the maintenance visits to the site (see woodland aftercare below), as part of the 2 year aftercare period. Any areas where the grass seed has failed to germinate will be re-sown, at the earliest point possible, in suitable weather conditions.

A minimum of 1 cut per year of the grassland areas will also be carried out, as part of the maintenance visits within the 2 year aftercare period. Following the 2 year aftercare period, it is envisaged that the grassland areas will either be grazed (arrangements to be made with a local farmer) or will be left to naturally develop into scrub.

4.2 Woodland planting aftercare

All tree planting aftercare operations will comply with BS 4428:1989 'Code of practice for general landscape operations (excluding hard surfaces)'.

The programme of aftercare will operate for a period of two years commencing from 31 March following completion of each section of the planting works.

Maintenance works shall be carried out in accordance with the following programme. Three visits will be carried out each year, with visits spaced at no less than six week intervals and no greater than sixteen week intervals:

December – March	No Visit (Winter)
April – Mid June	1 Visit (Spring)
Mid June – August	1 Visit (Summer)
September – November	1 Visit (Autumn)

On each visit, the applicant or their agents shall:

a) Spray around trees/shrubs with 'Roundup' (glyphosate) or similar, within a radial distance of 500mm from the stems. Application of weedkiller shall be carried out by a certified competent person, according to manufacturer's instructions and using an Arbor-guard to protect planting from spray damage. (Approval would be obtained from the necessary agencies before using herbicides in or near water. Proposed maintenance operations to waterside tree and shrub planting or seeding areas would take this into account and if necessary avoid the use of chemical control.)

b) Cut back the areas between plants to 100mm above ground level if required, in order to keep the planted areas clear of weeds and long grass.

c) Refirm planting where loosened and prune any damaged growth back to healthy wood.

d) Check the security and fitting of the tree guards and renew or adjust where necessary.

e) Supply and apply at approved rates any fertiliser, pesticide or fungicide required for the successful establishment of the planting.

f) Inspect and maintain fencing in good order, especially ensuring that straining wires are kept at the correct tension, posts are firmly held in the ground and all staples and fittings are securely in place.

During the last maintenance visit, all tree stakes, ties and guards will be removed, unless the trees have not established appropriately. If that is the case, arrangements will be made for the stakes/ties to be checked and removed where appropriate, at regular intervals until all stakes are removed

4.3 Monitoring and Replacement Planting

For the duration of the 2 year aftercare period, the applicant or their agents will undertake a site inspection at the end of each growing season (e.g. October-November) to monitor whether any of the plants have failed. Replacement planting will be arranged to be carried out within the next planting season (e.g. November-March), by a suitably qualified landscape contractor. Plants of the same species and size, as those originally planted will be used, unless unforeseen reasons for the failure of a specific species are identified. In this case, a suitable replacement species will be sourced.

4.4 Non-native invasive species

It is considered good husbandry that all occupiers of land whether used for agriculture or not make efforts to control injurious weeds in order for them not to spread. Furthermore, as part of the habitat management, where an individual plant species dominates an area, it may be beneficial to remove a proportion to allow other species to colonise or be introduced and increase species diversity. The following particularly invasive non-native plants have been identified:

- Giant Hogweed (Heracleum mantegazzanium) - poses a public health hazard because its sap will cause a skin rash in the presence of sunlight;
- Japanese Knotweed (Fallopia japonica var japonica) - forms dense thickets displacing native plants;
- Himalayan Balsam (Impatiens glandulifera) - spreads by seeds explosively propelled from ripened pods;
- Australian Swamp Stonecrop (*Crassula helmsii*) - quickly out-competes all native vegetation and maintains dominance through very rapid growth and uptake of almost all available nutrients;
- Parrot's Feather (*Myriophyllum aquaticum*) – propagates by growth from small fragments that are easily spread when the brittle stems break; and
- Floating Pennywort (*Hydrocotyle ranunculoides*) – forms dense interwoven mats that quickly cover water surfaces.

All areas of the site would be monitored for these plant species on at least a twice yearly basis, during the growing season. Where these plants are identified appropriate measures, specific to the plant species will be taken to control and/or eradicate them. The basic methods of controlling invasive plants are as follows:

- Mechanical – cultivation, hoeing, pulling, cutting, raking, dredging or other machinery to uproot or cut plants;
- Chemical – herbicides to kill plants;
- Natural – specific pests and diseases to weaken the target plant; and
- Environmental – alteration of the environment to make it less suitable for plant growth.

Where weeds are to be controlled by the application of herbicides this would be carried out by a certified competent person, according to manufacturer's instructions. Herbicides will not be used within 10m of ponds, ditches or streams. It is also acknowledged that all waste materials, including weeds, are subject to the Duty of Care and must only be transferred to, and carried by, registered waste carriers.

4.5 General Considerations

The requirements for secondary treatments will be reviewed on an annual basis, in order to identify and remedy any localised problems including:

- Stone-picking (within agricultural areas) - Assessed by visual inspection and any stones lying on the surface that are larger than 100 mm diameter (i.e. they will not pass through a wire screen mesh of 100mm spacing), together with other objects likely to obstruct future cultivation, will be removed from the site;
- Compaction (within agricultural areas) - Assessed by excavating inspection pits or recording areas of standing water in winter, with possible remedy to be subsoiling or other mechanical means;
- Vegetation Failure (all areas) – Initially assessed by visual inspection, with possible remedy to be cultivation and re-seeding. Vegetation failure may indicate other conditions; in such cases suitable investigation into the potential causes will be undertaken; and
- Settlement (all areas) – In the event of differential settlement, the affected areas will be rectified using appropriate materials, to ensure continuity of the final restoration soil profile.

APPENDIX 01

Drawing PC1 –Restoration Plan

Drawing PC2 –Restoration Sections

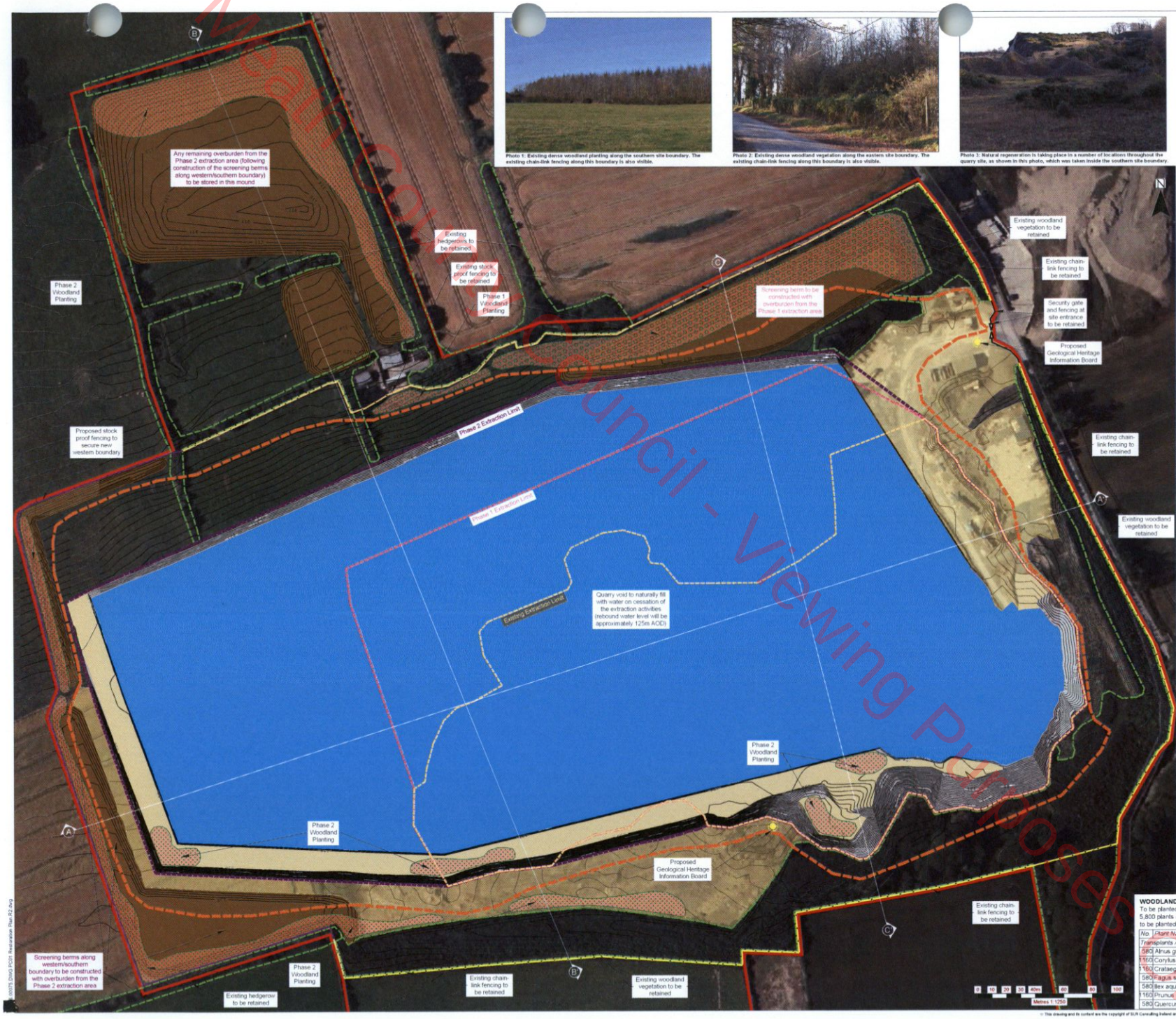

Photo 1: Existing dense woodland planting along the southern site boundary. The existing chain-link fencing along this boundary is also visible.

Photo 2: Existing dense woodland vegetation along the eastern site boundary. The existing chain-link fencing along this boundary is also visible.

Photo 3: Natural regeneration is taking place in a number of locations throughout the quarry site, as shown in this photo, which was taken inside the southern site boundary.

RESTORATION SCHEME

This Restoration Plan was prepared in compliance with condition 15 attached to the grant of the S37L permission for the further development of the quarry at Hilltown Little and Bellewstown townland, Co. Meath (ABP Order Ref. 17.QD.0013).

Condition 15 requests a restoration plan, including existing and proposed ground levels, landscaping proposals and a timescale for implementation.

It is proposed to carry out phased restoration to a wildlife habitat afteruse, which is one of the beneficial afteruses recommended in the EPA Guidelines 'Environmental Management in the Extractive Industry' (2006).

The phased Restoration proposals will be carried out, as detailed below:

Restoration Phase 1

(to be carried out in conjunction with the first phase of the extraction works, to be completed within 4 years from the commencement of the development)

Earthworks: The overburden material to be stripped from the Phase 1 Extraction area (outlined in pink on the plan to the left) will be moved into the northeastern corner of the quarry site and used to construct a screening berm.

Woodland Planting: Woodland planting will be carried out on the northern slopes of the new screening berm, as soon as the earthworks are completed. This planting will both soften the appearance of the berm, as well as provide erosion control.

Woodland planting will also be carried out along parts of the northern boundary.

It should be noted that other planting along the site boundaries was not found necessary, as the existing woodland areas and hedgerows, in addition to topography provide ample screening (refer to Photos 1 & 2).

Grass seeding: The remainder of the phase 1 screening berm will be grass seeded, as soon as the earthworks and woodland planting works are completed.

Restoration Phase 2

(to be carried out in conjunction with the second phase of the extraction works, to be completed within 10 years from the commencement of the development)

Earthworks: The overburden material to be stripped from the Phase 2 Extraction area (outlined in purple on the plan to the left) will be moved into the southwestern corner and along the western boundary of the extraction area and used to construct screening berms. Any remaining overburden material will be moved to an overburden storage area in the field north of the extraction area indicated on the plan.

Woodland Planting: Woodland planting will be carried out on the outside slopes of the new screening berms, as soon as each section of the earthworks is completed. As before, the planting will both soften the appearance of the berms and provide erosion control.

Woodland planting will also be carried out in a number of blocks on the upper quarry benches and along the southern boundary, on completion of all extraction works. This planting will support the natural regeneration of the remainder of the quarry area.

Grass seeding: The remainder of the new screening berms, and overburden storage areas will be grass seeded, as soon as the earthworks and woodland planting works are completed.

Access track: An access track will be constructed encircling the entire quarry void, in order to allow access to the geological interest area and to the wider site for inspection, amenity and wildlife observation.

Information boards: Geological Heritage information boards will be installed at the site entrance and, at the southern face, as indicated on the plan.

Quarry lake: The quarry void will be left to naturally in-fill with water on completion of all extraction works.

Natural regeneration: All other areas surrounding the quarry lake, which are not to be covered by grass seeding or woodland planting, will be cleared from plant and machinery, deep-ripped (where feasible) and left for natural regeneration (refer to Photo 3).

Site security: The lockable palisade gates and palisade fencing at the site entrance will be retained. The entire quarry boundary will be securely fenced to prevent unauthorised access.

The existing chain-link fencing along the eastern & southern boundary, the existing secure stock proof fencing along the northern boundary and proposed stock proof fencing along the western boundary will be inspected and maintained on a regular basis.

In addition to the fencing, the existing woodland vegetation and hedging on the site boundaries will be allowed to flourish, which will act as a natural barrier.

General Notes:

Earthworks: All topsoil and subsoil will be handled and stored separately and all works carried out in accordance with current best practice.

Grass seeding: Prior to sowing works, surface preparation and final cultivation will be carried out in accordance with current best practice. Sowing to take place whilst suitable weather conditions prevail. The sowing specifications will be as per the manufacturer's instructions.

Woodland planting: With the exception of beech, all species proposed (see Table below) are native to Ireland. Beech is included in the mix, as it is a species typically present in this part of Co. Meath. All plants are specified as 60-90cm tall transplants, as this type of stock is known to establish more readily than larger stock. If possible, the stock will be Irish grown and sourced locally. All plants will be protected with individual spiral guards. All plant handling, planting and establishment works will be carried out in accordance with current best practice and will take place in the appropriate planting season (e.g. bareroot planting: November to March only) and in favourable weather conditions. The planting will be carried out by a suitably qualified landscape contractor.

Aftercare: Establishment maintenance for the woodland planting will be carried out for a minimum of 2 years following completion each phase of the planting works (i.e. a minimum 3 maintenance visits per year, i.e. spring, summer and autumn). This will include weed control, replacement planting where required and the adjustment/removal of tree ties and spiral guards.

WOODLAND SCREENIG MIX

To be planted at 2m centres (i.e. 1 plant per 4m²). 23,200m² in total = 5,800 plants (Phase 1 : 1,900 plants, Phase 2 :3,900 plants). Transplants to be planted randomly in same species groups of 3-5 plants.

No.	Plant Name	Common Name	Height (cm)	Age/Pot	%
Transplants / Container Grown Shrubs					
580	Alnus glutinosa	Common alder	60-90	1+1	10
1160	Corylus avellana	Hazel	60-90	1+0	20
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580	Ilex aquifolium	Holly	60-80	2L	10
1160	Prunus spinosa	Blackthorn	60-90	1+0	20
580	Quercus petraea	Sessile oak	60-90	1+1	10

NOTES

1 Aerial photography taken from Bing Maps.

2 Refer to drawing PC2 for an illustration of the existing and proposed finished ground levels, as part of the Restoration Sections.

LEGEND

- SECTION 37L PLANNING APPLICATION AREA (ABP ORDER REF. 17.QD.0013)
- EXISTING EXTRACTION LIMIT
- PHASE 1 EXTRACTION LIMIT (TO BE SET BY YEAR 4)
- PHASE 2 EXTRACTION LIMIT (TO BE SET BY YEAR 10)

EXISTING VEGETATION TO BE RETAINED

- HEDGEROWS / WOODLAND AREAS

PROPOSED RESTORATION FEATURES

- SCREENING BERMS / OVERBURDEN STORAGE AREAS (TO BE GRASS SEEDED)
- PHASE 1 WOODLAND SCREEN PLANTING
- PHASE 2 WOODLAND SCREEN PLANTING
- QUARRY VOID TO NATURALLY FILL WITH WATER
- AREAS SURROUNDING THE QUARRY LAKE TO BE CLEARED AND LEFT FOR NATURAL REGENERATION
- PROPOSED PATH SURROUNDING THE EXTRACTION AREA
- GEOLOGICAL HERITAGE INFORMATION BOARDS

SITE SECURITY

- LOCKABLE PALISADE GATES AND PALISADE FENCING AT SITE ENTRANCE TO BE RETAINED
- EXISTING CHAIN-LINK FENCING ALONG EASTERN AND SOUTHERN BOUNDARIES TO BE RETAINED
- EXISTING STOCK PROOF FENCING ALONG NORTHERN BOUNDARY TO BE RETAINED
- PROPOSED STOCK PROOF FENCING TO SECURE NEW WESTERN BOUNDARY

SLR

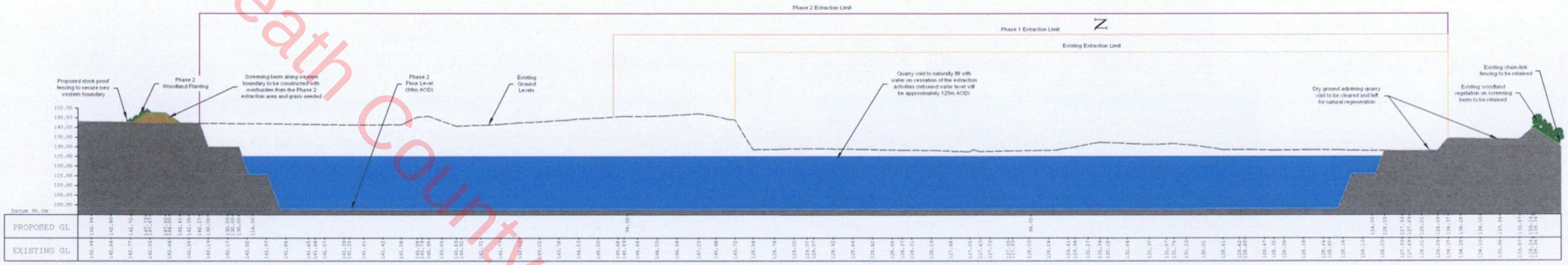
KILSARAN CONCRETE
PLANNING COMPLIANCE

QUARRY AT HILLTOWN, LITTLE AND BELLEWSTOWN TOWNLANDS, CO. MEATH

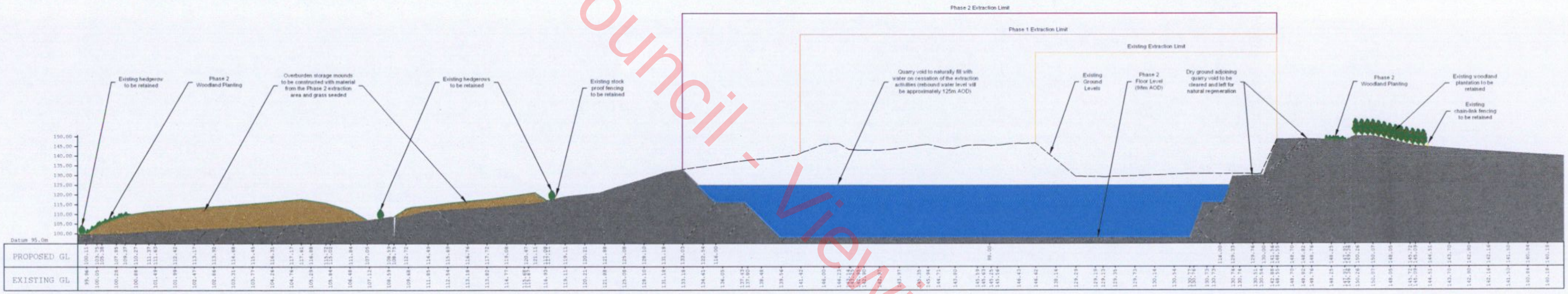
RESTORATION PLAN

DRAWING PC1

Scale: 1:1,250 @ A1 | Date: JANUARY 2019



SECTION A-A' (SCALE 1:1,000)



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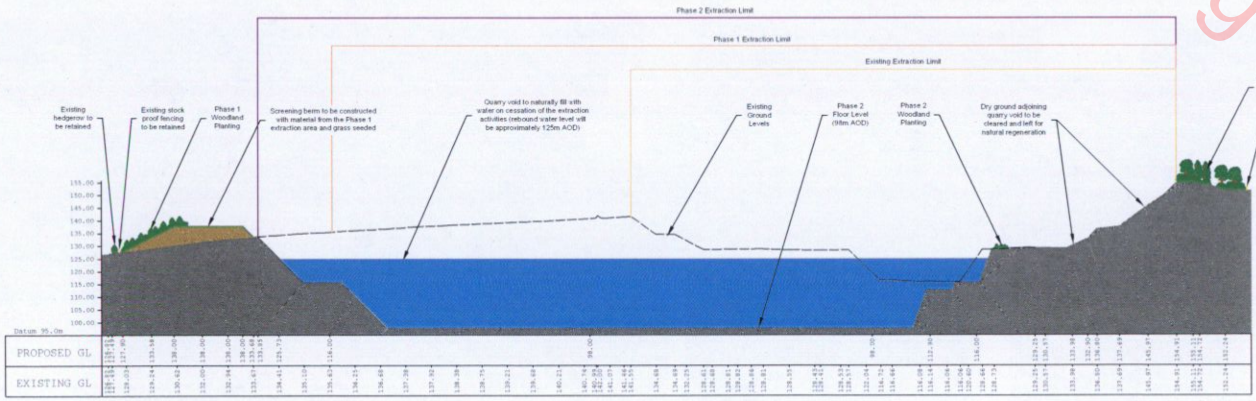

SECTION C-C' (SCALE 1:1,000)

NOTE
Refer to Drawing PC1 for the section locations and more information on the Restoration Proposals

SLR global environmental solutions

KILSARAN CONCRETE
PLANNING COMPLIANCE
QUARRY AT HILLTOWN LITTLE AND BELLEWSTOWN TOWNLANDS, CO. MEATH
RESTORATION SECTIONS
DRAWING PC2
JANUARY 2019

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