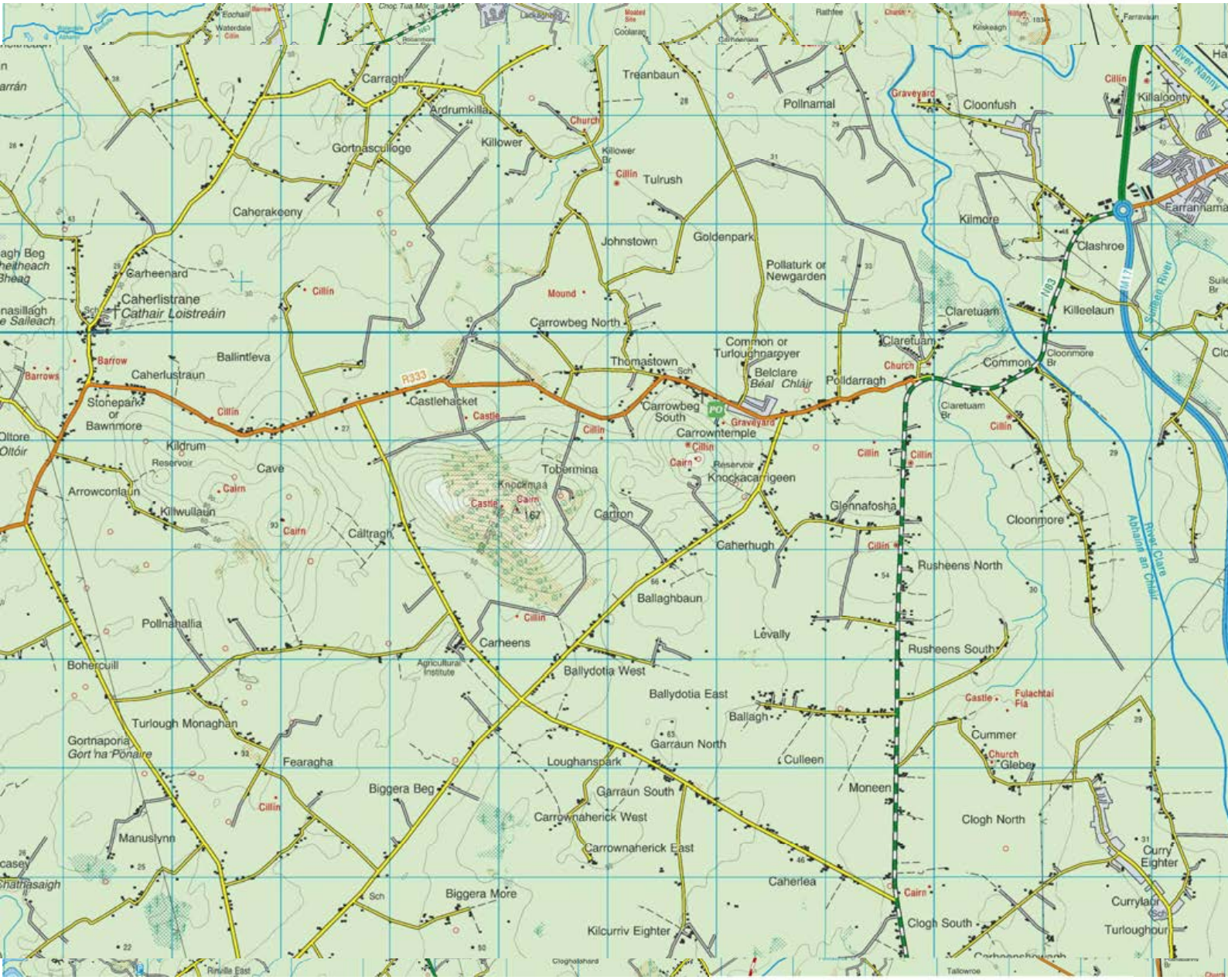
NON-TECHNICAL SUMMARY



JUNE 2025

QUARRY CONSULTING

Contents

NON-TECHNICAL SUMMARY

Introduction

1.1 Mortimer Quarries Ltd is seeking permission to continue operating its limestone quarry and associated concrete and asphalt plants at Cartron, Belclare, Co. Galway for a further **33 years**, followed by a **2-year restoration phase**. An Environmental Impact Assessment Report (EIAR) has been prepared in accordance with EU Directive 2014/52/EU and Irish regulations. This Non-Technical Summary (NTS) presents the main findings.

Site location and scale

1.2 The existing quarry site is located in the townland of Cartron, Belcare, Co. Galway, situated approximately 5.6km south-west of Tuam and 10km north-east of Headford, while Galway is 20km south of the site.

1.3 The site is located to the south of the R333 and north of the L2212 from which access is provided via an unnamed local road approximately 600m in length. In the vicinity of the site the L2212 comprises an unmarked single carriage road with an 80km/hr speed limit. The L2212 joins the R333 at a T-junction approximately 1.5km north-east of the site.

1.4 The application site is comprised of an existing operational quarry, which is broadly L-shaped, with an extraction area of 15.09 ha and a total site area of approximately 16.3 ha. The site is bounded to the south-west by a minor road, to the south-east by agricultural land, to the north-west by an area of woodland and to the north-east by a neighbouring quarry formerly operated by a third party (currently closed).

1.5 Beyond the site, the landscape is rural in character, consisting of predominately agricultural land enclosed with stone walls, with patches of bog, scrubland and woodland, most notable Knockma Wood immediately west of the site.

1.6 There are no properties within 400m of the extraction area, the nearest properties comprise a detached farm house approximately 590m to the north of the site and a series of dwellings on the L2212 south-west of the site. There are approximately 56 dwellings within 1km of the quarry. The closest settlement to the site is the village of Belclare, which is situated approximately 1.2km north of the site.

1.7 There are no surface water features in the immediate vicinity of the site, the nearest water course comprises the Glennafosha, stream, approximately 3km east of the site The Glennafosha stream is a tributary of Clare River.

1.8 The site is situated between the 60m and 90m contour lines, with higher ground immediately west of the application site, at Knockmaa (167m above Ordnance Datum (OD)) and to the north-east at Knockacarrigeen (110m above OD). Other than these highpoints, the landscape is broad and open, with expansive views available from the higher points

1.9 Mortimer Quarries Ltd. owns the site where the proposed development will take place.

Proposed development

Operational Phase (Extraction and Processing)

1.10 The proposed development being applied for under this current planning application is shown on Figure 3.1 and will consist of:

- Continued use of the existing quarry (granted under Planning Ref. File No.: 06/2275 and ABP Ref.: PL07.222783), including drilling, blasting, crushing, processing and stockpiling of materials within a total site area of 15.09 hectares to the permitted depth of 33m OD.
- Continued use of existing permitted structures and facilities, including:
  - Weighbridge and wheelwash with side and overhead spray bars.
  - Office and staff facilities building and carpark provision (Ref. 17512).
  - Asphalt plant (Ref. 15104), concrete batching plant (Ref. 20419), maintenance shed (Ref. 141295), aggregate shed, ESB substation (Ref. 191964), crushing and screening plant, and stock bays (Ref. 062275 & 21442).
  - Associated site infrastructure.
- Construction of a new quarry storage yard (c. 1.09 Ha.) to the east of the existing quarry.
- Relocation of the existing permitted sheds (Plan Ref File No. 21442) to an area beside the proposed storage yard area.
- Importation of soil and stone (both waste and non-waste) for site restoration purposes and selected construction and demolition waste for recycling to preserve natural aggregate resources, subject to the necessary authorisations.
- The proposed development will facilitate the continued operation and restoration of the site, with the operational life of the quarry ceasing upon resource exhaustion, followed by completion of restoration to agricultural and natural uses using imported material.

1.11 The proposed development is within an overall application area of c. 16.3 hectares and is for a total period of 35 years (comprising an operational period of 33 years followed by 2 years for completion of restoration). The application is accompanied by an Environmental Impact Assessment Report (EIAR).

1.12 Aggregate extracted from the application area will be processed using both semi static and mobile crushing and screening plant within the quarry void – refer to Figure 3.1. Processed rock will be stored in the existing permitted quarry area pending use in the ancillary manufacturing plants (asphalt, block, concrete) on site or sale off site.

Restoration (Reinstatement to Nature Conservation Habitat Areas)

1.13 Upon the cessation of extraction operations, it is proposed to return the worked lands to agricultural & natural habitat after-uses – refer to EIAR Chapter 3, Figure 3.2 and Chapter 5: Biodiversity.

1.14 Where feasible, restoration of exhausted and redundant areas will be carried out at the earliest opportunity. However, it is envisaged that the majority of the restoration proposals will be carried out after extraction operations at the site have ceased.

Alternatives

Need for the Development

1.15 There is an increasing demand for construction aggregates, particularly limestone, driven by residential, commercial, and infrastructure development in Galway and Ireland . Key drivers of demand include:

- Housing developments to meet local needs .
- Economic growth supported by commercial construction .
- Public infrastructure projects aligned with the National Development Plan .

1.16 The continued operation of the quarry is critical to provide a local supply of limestone, thereby reducing transportation emissions and supporting national sustainability objectives.

Construction Aggregates

1.17 Limestone is favoured for its physical and chemical properties that make it suitable for various construction applications. The document stresses the importance of maintaining a local supply of limestone aggregates for ongoing construction and agricultural needs.

Concrete and Asphalt Manufacturing

1.18 The on-site concrete batching and asphalt plants ensure a reliable supply of construction materials, minimising transportation distances and associated emissions. However, some high-specification aggregates must still be imported.

Recycling and Aggregate Reuse

1.19 The quarry also processes construction and demolition waste for recycling, supporting sustainable practices and reducing the demand for virgin aggregates.

Agricultural Ground Limestone

1.20 The production of agricultural ground limestone helps local farmers manage soil acidity while minimising transport emissions.

Restoration and Circular Economy

1.21 The development outlines plans for site restoration post-extraction, incorporating imported inert materials to achieve the desired landform. This approach aligns with circular economy principles by reusing excavation spoil.

Policy Alignment

1.22 The development aligns with national frameworks such as Project Ireland 2040, which emphasises balanced regional development and sustainable resource management. The Galway County Development Plan supports the extractive industry as vital for economic growth.

Alternatives Considered

- Do Nothing Scenario: Ceasing quarry operations would disrupt local supply chains and increase reliance on distant sources, leading to higher costs and emissions.
- Alternative Sources of Aggregates: While recycled aggregates can reduce virgin limestone demand, they cannot fully replace high-quality limestone for critical applications.

- **Alternative Locations**: Continuing operations at the existing site is preferred over developing new quarries, which would incur higher environmental impacts and costs.
- **Alternative Designs and Processes**: Various extraction methods were considered, with blasting being chosen for its efficiency and lower environmental impact compared to rock breaking.

Conclusion

1.23 The assessment concludes that the continuation of the existing quarry is the most viable and sustainable option. It supports local construction needs while minimising environmental impacts, aligning with policy objectives and ensuring a stable supply of limestone aggregates for the region.

Summary of Environmental Effects

Population and Human Health

Study Area

1.24 The study area includes several Electoral Districts within a 5km radius of the application site, primarily focusing on the Municipal District of Tuam. This area is characterised by agricultural land use with limited residential properties nearby.

Sources of Information

1.25 Data was collected from various sources, including census data from the Central Statistics Office, health profiles from the Health Service Executive, and environmental assessments from other chapters of the EIAR. This comprehensive approach provides a baseline understanding of the local population and health risks.

Identification and Description of Potential Effects

1.26 The assessment identifies both direct and indirect effects of the proposed development on population and health outcomes, particularly focusing on water, air quality, and noise. The effects are categorised as positive, negative, or neutral based on their impact on the environment.

Significance of Effects

1.27 The assessment evaluates the significance of effects on population and human health, referencing established criteria to determine whether changes are imperceptible, significant, or profound. This includes considerations of extent, context, and probability of effects.

Baseline Conditions

1.28 The chapter provides detailed information about land use, property values, population statistics, and health profiles in the study area. It highlights demographic trends, including an increase in population within some Electoral Districts, while noting that the area remains relatively unpopulated compared to national averages.

1.29 The health profile of County Galway indicates a generally affluent population with varying health risks. The report notes specific health statistics, including lower rates of certain cancers and a higher incidence of male malignant melanoma.

Assessment of Potential Effects

Construction Stage Impacts

1.30 During the construction phase, potential effects include noise and dust generation, which are expected to be short-term and manageable within existing limits.

Operational Stage Impacts

1.31 The ongoing operation of the quarry is not anticipated to significantly alter population distribution or local health outcomes, as the operation will continue to adhere to established environmental thresholds.

Post-Operational Stage Impacts

1.32 After quarry operations cease, the site is expected to be restored to agricultural land / natural habitat, which will positively impact the local environment and potentially enhance recreational opportunities.

Cumulative Effects

1.33 The assessment cumulative effects from other developments in the vicinity, concludes that due to distance and existing land uses, significant cumulative impacts are unlikely.

Mitigation Measures

1.34 Several mitigation measures are proposed aimed at minimising impacts on population and human health throughout the construction and operational phases. These include ongoing monitoring of air quality, noise, and water quality.

Monitoring

1.35 Regular monitoring of environmental parameters will be conducted to ensure compliance with health and safety standards, thereby safeguarding local communities.

1.36 Overall, the EIAR presents a thorough assessment of the potential impacts of the proposed quarry development on population and human health, emphasising the importance of legislative compliance and community welfare throughout the project lifecycle. The findings indicate that while some impacts are anticipated, they are manageable within established guidelines and will not significantly detract from the quality of life for local residents.

Biodiversity

1.37 This chapter provides an Ecological Impact Assessment (EcIA) to evaluate the potential effects of the proposed continuation of quarrying activities and the development of a new storage yard on local biodiversity. It ensures compliance with relevant legislation and policies, including the Wildlife Acts, EU Habitats and Birds Directives, and the Galway County Development Plan 2022–2028.

Site Overview

1.38 **Size and Land Use:** The site spans approximately 16.3 hectares, including an active limestone quarry, asphalt and concrete plants, and supporting infrastructure.

1.39 **Surrounding Area:** The site is located southwest of Belclare and Tuam, adjacent to Knockmaa Hill (a Geoheritage Site and pNHA), and within 2 km of Belclare Turlough pNHA.

1.40 **Designations:** There are no statutory nature conservation sites within the quarry boundary, but two non-statutory designated sites occur nearby.

Baseline Ecological Conditions

1.41 The quarry floor and operational areas are already disturbed and cleared of vegetation due to historic quarrying.

1.42 **Habitats:** The site includes bare rock, stockpiles, berms, scrub, hedgerows, and recolonising vegetation at the periphery.

1.43 **Flora and Fauna:** No rare or protected species were recorded. The site provides limited habitat for common mammals and birds.

1.44 **Invasive Species:** None recorded on site.

Phased Impact Assessment

1.45 The assessment considers three key phases:

Construction Phase (new storage yard only):

- **Impacts:** Vegetation clearance and ground reduction may cause temporary disturbance to local habitats. However, these habitats are of low ecological value.
- **Mitigation:** Works will follow best practice; ecological input will guide soil stripping and reinstatement.

Operational Phase (continued quarrying):

- **Noise & Vibration:** Located in a screened quarry void; unlikely to significantly affect nearby receptors or designated sites.
- **Dust:** Managed through effective controls, within thresholds protective of vegetation.
- **Water & Hydrogeology:** No hydrological or hydrogeological linkage exists with designated sites. Belclare Turlough is hydrologically disconnected.

Post-Operational Phase (restoration):

- **Restoration Plan:** The site will be restored to natural and agricultural use, improving long-term biodiversity potential.
- **Positive Legacy:** Enhanced habitat and landscape integration over time.

Cumulative and Transboundary Effects

1.46 No significant cumulative effects are expected from adjacent activities or quarries (e.g., McTigue's Quarry).

1.47 No potential for transboundary impacts exists due to the site's inland location.

Mitigation and Monitoring

1.48 No additional specific ecological mitigation is necessary beyond standard site environmental controls (dust suppression, screening, regulated blasting).

1.49 No ecological monitoring programme is proposed due to the absence of sensitive receptors or predicted significant impacts.

Policy and Legal Compliance

1.50 The project aligns with the National Biodiversity Action Plan, Galway County Development Plan, and EU biodiversity directives. There are no implications for statutory nature conservation sites.

Conclusion

1.51 The proposed development will not give rise to significant effects on local biodiversity. It is located in a disturbed area, removed from sensitive receptors, and managed in accordance with environmental best practices. The post-restoration phase is expected to enhance local ecological value, supporting biodiversity and landscape integration in the long term.

Land Soils and Geology

1.52 This chapter of the Environmental Impact Assessment Report (EIAR) addresses the potential effects of the continued quarrying and associated concrete and asphalt manufacturing activities at the Mortimer Quarries Ltd. site in Cartron, Belclare, Co. Galway. The project includes the continuation of extraction within a previously permitted area, minor regrading, the creation of a new storage yard, and ongoing use of established infrastructure. The assessment focuses on the likely effects on land, soils, and geological features, and the sustainable use of natural resources, in compliance with the EIA Directive (2014/52/EU), the Mines and Quarries Act, and the Galway County Development Plan 2022–2028.

Existing Environment

1.53 **Site Overview:** The application site has the benefit of previous and current permission over an area of 15.09ha of actively used quarry land with a Waste Facility Permit (WFP-G-21-0007-02) for the importation of inert materials for restoration purposes and an additional area of c.1.2ha proposed for use as a storage area.

1.54 **Geology:** The quarry is situated within the Knockmaa Formation, dominated by thick-bedded pale grey limestone. The formation is regionally important for aggregate supply, with minimal karst development, making it ideal for extraction.

1.55 **Soils & Subsoils:** The quarry area has been largely stripped of subsoils due to historical quarry activity. Surrounding areas consist of thin glacial deposits and exposed bedrock.

1.56 **Environmental Designations:** The site is not within a designated SAC, SPA, or pNHA. However, nearby features such as Knockmaa Hill are recognised as County Geological Sites and Geoheritage features (GSI GY082).

1.57 **Water Environment:** The quarry operates above the regional groundwater table. No direct hydrological connection exists between the site and nearby water features. Rainwater collects in floor sumps and is reused for dust suppression and aggregate washing.

Potential Impacts

1.58 **Direct Impacts:** Continued extraction will involve the removal of limestone bedrock, resulting in permanent loss of this natural resource. Soil disturbance will be localised and controlled.

1.59 **Indirect Impacts:** Dust generation and the potential for erosion are minor concerns, with effective mitigation in place. No risk of groundwater contamination exists due to the inert nature of imported materials and absence of groundwater interception.

1.60 **Cumulative Impacts:** The proposed works are a continuation of long-established activities and are unlikely to result in significant cumulative effects. The quarry lies above the groundwater system, and site monitoring confirms no cumulative pollution risk from infill operations.

1.61 **Transboundary Impacts:** None anticipated due to the localised nature of operations.

Mitigation Measures

1.62 **Operational Controls:** Existing water management systems, including settlement lagoons and sumps, will be maintained. Water is sourced from a site well and reused in a closed-loop system.

1.63 **Soil & Erosion Management:** Topsoil will be stripped and stored for reuse in restoration. Bunds are in place for fuel storage and to prevent accidental contamination.

1.64 **Restoration Strategy:** Restoration will be phased, using inert soil and stone (EWC 17 05 04 and 20 02 02), or material notified under Article 27 of the Waste Directive as non-waste. This supports circular economy principles and reduces reliance on landfill.

Residual Impacts

1.65 After the application of mitigation measures, residual impacts on land, soils, and geology are considered negligible. The primary long-term impact remains the removal of bedrock; however, this is consistent with national mineral resource strategies and is essential to infrastructure development.

Monitoring

1.66 Ongoing environmental monitoring will continue in accordance with the site's Environmental Management System. This includes regular checks on dust, water quality, and materials handling to ensure continued compliance with regulatory thresholds and planning conditions.

Conclusions

1.67 The continuation of quarrying and associated activities at the Mortimer Quarries Ltd. site can be undertaken without significant adverse effects on land, soils, or geological features.

1.68 The proposed development supports the National Planning Framework, the Galway County Development Plan, and national sustainability goals by supplying locally sourced aggregates and implementing circular economy principles through permitted restoration activities.

1.69 With established mitigation and monitoring, the project represents a responsible use of natural resources that aligns with environmental protection and regional development objectives.

Water

1.70 This chapter of the Environmental Impact Assessment Report (EIAR) assesses the potential impacts of continuing quarry operations and constructing a storage yard at Mortimer Quarries Ltd., Cartron, Belclare, Co. Galway. It focuses on the site's interaction with water resources, including surface water, groundwater, and rainfall, and outlines mitigation and monitoring strategies to protect water quality and comply with national and EU legislation.

Site Overview

- **Location:** Cartron, Belclare, Co. Galway
- Total Site Area: 16.3 hectares
- Permitted Depth: 33m OD
- **Setting:** Rural landscape with one-off houses and agricultural land
- **Hydrological Context:** Located within the Corrib Catchment and overlying the Clare Corrib Groundwater Body (GWB), a regionally important karstified aquifer

1.71 The quarry operates as a closed hydrological system—rainwater falling within the site is collected in a central sump and reused on-site for dust suppression, aggregate washing, and site maintenance. No surface water discharge licence is required.

Potential Impacts

1.72 The development does not introduce new water-related risks, as most enabling works (e.g., soil stripping and drainage infrastructure) have already occurred. However, the following risks are considered:

- Groundwater contamination from accidental hydrocarbon spills associated with plant/machinery
- Mobilisation of dust or fines during dry periods
- Indirect effects on protected groundwater-fed habitats and public water supply abstractions (e.g., Lough Corrib)

1.73 The quarry sits above the regional groundwater flow system, meaning there is no groundwater inflow into the excavation void and no connection between the exposed bedrock of the quarry and the regional groundwater flow system. There are no direct links between the quarry and the hydrological system, meaning surface water, and neither are there direct links between the quarry and the hydrogeological system (meaning water underground in bedrock).

Cumulative Effects

1.74 There is an adjacent, non-operational third-party quarry, but no evidence of water discharge or active groundwater abstraction associated with it. As such, no significant cumulative effects are expected. Regional water abstractions, including for Group Water Schemes, public supplies and public water supply assets have been assessed. There are no risks posed by the quarry to any sources of water supply because the quarry is set above the sources, in the context of elevation, isolated from the water environment, and the sources are too remote and are hydraulically separated from the site. In addition, Uisce Eireann assets have been assessed and no risk is concluded. The Water Chapter and its associated Appendices provide both mathematical and qualitative evidence to support a conclusion of zero risk.

Mitigation Measures

- Use of bunded refuelling areas and hydrocarbon interceptors to protect water quality
- Continued implementation of closed-loop water recycling systems
- Controlled blasting practices and minimal soil disturbance in the proposed storage yard
- Quarterly water quality monitoring of the site's sump and supply well
- Adherence to EPA guidelines and incorporation of best environmental management practices under the quarry's Environmental Management System (EMS)

Residual Effects

1.75 After implementation of mitigation, no residual impacts on groundwater or surface water are anticipated. The site's elevated position, lack of groundwater inflow, and self-contained water system limit any potential for off-site effects.

Conclusions

1.76 The continued operation of the quarry and development of the storage yard will not negatively affect local water as either a national resource asset or as a source of water.

1.77 The quarry complies with relevant environmental protection standards and continues to operate with minimal risk to hydrological and hydrogeological receptors.

1.78 Neither is any risk presented to the sources of water for Public Water Supply as supplied by Group Water Schemes or Public Water Supplies or their associated assets.

1.79 The quarry's proposed continued operation has been quantitatively proven to ensure compliance with the Objectives of the Water Framework Directive.

1.80 The project supports regional construction needs while maintaining sustainable water practices.

Climate

1.81 This chapter of the EIAR assesses local climate conditions and greenhouse gas emissions resulting from the quarry's operations, which cover an area of approximately 16.3 hectares, with 15.09 hectares designated for limestone extraction. The quarry employs blasting techniques for extraction and processes the limestone into aggregates for construction purposes. It also includes a proposed storage yard for materials .

Scope of Work

1.82 The report covers several key areas:

- Climate change legislative framework and policy context .
- Analysis of local environmental trends .
- Identification of climate change concerns related to the quarry .
- Assessment of cumulative effects and uncertainties .
- Identification of alternatives and mitigation measures .
- Monitoring and adaptive management strategies .

Climate Change and Greenhouse Gases

1.83 Climate change is accelerated by human activities, particularly through increased greenhouse gas emissions from fossil fuel combustion. Ireland's performance in climate change mitigation is monitored by the Climate Change Performance Index (CCPI), where Ireland's ranking improved from 47th in 2022 to 29th in 2025, indicating a medium performance.

Ireland's Greenhouse Gas Emissions Projections

1.84 The EPA's projections indicate that under the "With Existing Measures" scenario, Ireland will exceed its emissions allocation by 80.3 Mt CO_2 equivalent from 2021-2030. In contrast, the "With Additional Measures" scenario predicts a lesser exceedance of 50.1 Mt CO_2 equivalent . The quarrying sector is expected to reduce emissions by 35% by 2030, necessitating a shift to more energy-efficient technologies .

Legislation and Policy

1.85 The Climate Action and Low Carbon Development (Amendment) Act 2021 mandates a 51% reduction in greenhouse gas emissions by 2030 and net-zero emissions by 2050. This legislation requires sector-specific carbon budgets and comprehensive climate action plans.

Galway County Development Plan

1.86 The Galway County Development Plan (2022-2028) outlines several policy objectives related to climate change, including support for sustainable growth and integration of green infrastructure.

Current Climate and Weather

1.87 Ireland's climate is characterised by mild temperatures and high precipitation levels, which are expected to change significantly due to climate change. Projected impacts include rising temperatures, altered precipitation patterns, and increased storm intensity.

Climate Change Risk Assessment

1.88 The risk assessment identifies vulnerabilities of the quarry to climate hazards such as flooding and extreme winds. The exposure analysis indicates that flooding risks are low, while there is moderate sensitivity to extreme winds.

Greenhouse Gas Emissions Assessment

1.89 The quarry's operations are projected to generate 5,190.73 t CO_2e annually, contributing a negligible percentage to Ireland's total emissions. The emissions are primarily attributed to energy use in machinery and transportation.

Mitigation Measures

1.90 Various mitigation measures are outlined to enhance resilience against climate change and reduce carbon emissions, such as implementing energy-efficient practices and utilising renewable energy sources.

Conclusion

1.91 The assessment concludes that the proposed quarry development will not significantly impact Ireland's overall carbon emissions, and with effective mitigation measures, the residual effects are deemed not significant.

Cumulative Assessment

1.92 The cumulative impacts of the quarry alongside other local operations have been evaluated, indicating that the additional emissions from nearby quarries are negligible.

Do-nothing Scenario

1.93 If the quarry is not developed, the local economy may suffer due to job losses and increased transportation emissions from sourcing materials further away.

Worst-case Scenario

1.94 Potential worst-case scenarios include severe flooding and droughts impacting operations, necessitating robust mitigation strategies.

Monitoring

1.95 No specific monitoring of greenhouse gas emissions is required for the proposed development.

Air Quality

1.96 This chapter of the EIAR, prepared by Quarry Consulting, evaluates the potential air quality-related impacts of the quarry's operations, which include limestone extraction, processing, and associated activities. The site spans approximately 16.3 hectares with an extraction area of 15.09 hectares, utilising blasting techniques for limestone extraction. The processing of limestone into aggregates for construction, along with the operation of a concrete plant and asphalt plant, poses potential dust emissions, which are managed through established mitigation measures.

Purpose of the Chapter

1.97 This chapter aims to assess and document potential air quality impacts from the quarry's operations. It outlines the baseline conditions, identifies sources of air pollutants, estimates their magnitude and significance, and proposes mitigation measures to ensure compliance with relevant air quality regulations.

Scope of the Assessment

1.98 The assessment focuses on the operational phase of the quarry, analysing effects from blasting, extraction, crushing, and transportation. It employs Irish and UK guidelines to ensure thorough evaluation of potential air quality impacts.

Legislative Context and Policy

1.99 The document discusses air quality standards established by the Clean Air for Europe (CAFE) Directive and its subsequent updates. The latest directive (EU) 2024/2881 introduces stricter air quality standards and monitoring obligations to reduce health and environmental impacts from air pollution.

Air Quality Monitoring and Compliance

1.100 Ireland's air quality monitoring network has expanded, consisting of 112 operational stations. In 2022, Ireland met all legal requirements under the CAFE Directive, though challenges remain regarding specific pollutants like $PM_{2.5}$ and NO_2.

Existing Conditions

1.101 The proposed quarry site is located in a rural area with limited residential proximity. The nearest receptor is approximately 375 meters from the application boundary (existing access road). The document notes that deposited dust does not typically travel beyond this distance.

Predicted Impacts on Air Quality

1.102 The quarry's operations can potentially increase dust levels due to activities such as extraction, material handling, and transportation. The report emphasises that due to high levels of precipitation in the area, dust generation is naturally suppressed.

Mitigation Measures

1.103 Existing and proposed mitigation measures include the use of water sprays, dust dampeners, and the restriction of operational activities during adverse weather conditions. These measures aim to minimise dust emissions and ensure compliance with air quality standards.

Conclusion

1.104 With the implementation of mitigation measures, the proposed quarry operations will not have significant adverse effects on air quality for both human and ecological receptors. The monitoring program will ensure ongoing assessment and compliance with air quality standards.

Noise and Vibration

1.105 This chapter of the EIAR assesses the noise and vibration effects associated with the continued use of the existing Mortimer Quarry and the development of a proposed storage yard at Cartron, Belclare, Co. Galway. The primary focus is on the potential impact of operations on nearby sensitive receptors, particularly in relation to noise from machinery, traffic, and blasting activities.

Existing Environment

1.106 **Location:** The site is situated in a rural setting southwest of Belclare village, with the nearest dwelling approximately 490 metres from the extraction area.

1.107 **Topography:** The quarry is partially below natural ground level, with much of the extraction and processing occurring on the quarry floor. This provides a natural acoustic barrier that helps reduce off-site noise impacts.

1.108 **Infrastructure:** A buried water main operated by Uisce Éireann runs beneath the quarry access road and serves the Knockacarigeen reservoir nearby. While not sensitive to airborne noise, this asset is acknowledged in relation to potential vibration effects from blasting.

Potential Impacts

1.109 **Noise:** Operational noise primarily arises from quarry plant, machinery, vehicle movements, and material processing. Noise predictions show compliance with the recommended day-time Emission Limit Value for noise of 55 dB LAeq,1hr.

1.110 **Vibration:** Blasting activities are carefully designed and monitored. Predicted Peak Particle Velocity (PPV) levels remain well below the EPA limit of 12 mm/s at the nearest residential dwellings, and will not exceed the guideline value recommended by BS 5228-2:2009+A1:2014 for underground services at the Uisce Éireann water main.

1.111 **Air Overpressure:** This is a by-product of blasting. While some minor exceedances are possible due to weather conditions, measured values are typically within the 125 dB(Lin) limit.

Mitigation Measures

Noise Mitigation:

- Strategic use of the quarry face and perimeter berms to shield receptors.
- Maintenance of equipment and selection of low-noise plant.
- Adherence to working hours and blast scheduling to avoid sensitive periods.

Vibration and Overpressure Control:

- Optimised blast design and stemming.
- Vibration and air overpressure monitoring at sensitive receptors and near the water main.

Monitoring

1.112 A detailed monitoring programme is in place to assess compliance with EPA and WHO guidelines, with adjustments made as needed.

Residual Impacts

1.113 With mitigation and careful management, noise and vibration impacts are predicted to remain below the relevant Emissions Limit Values. As quarrying progresses to lower levels, natural shielding will increase, leading to further reduction in residual noise from the quarry compared to the current situation.

Conclusion

1.114 The continued operation of Mortimer Quarry and development of the proposed yard area will not result in any significant adverse noise or vibration impacts on local communities or infrastructure. The integration of design, mitigation, and monitoring measures ensures compliance with environmental and health standards, protecting both human receptors and nearby services such as the Uisce Éireann water main.

Visual and Landscape

1.115 The LVIA describes the landscape context of the proposed development, assessing the likely impacts on the receiving environment. The assessment distinguishes between Landscape Impact Assessment (LIA), which focuses on the effects on the landscape resource, and Visual Impact Assessment (VIA), which evaluates the impacts on specific views and visual amenity experienced by people .

Legislative and Policy Context

1.116 The assessment references several key legal and policy frameworks, including the Environmental Impact Assessment (EIA) Directive, the Planning and Development Acts, and various national guidelines. Notably, it incorporates the Galway County Development Plan 2022-2028 and the National Landscape Strategy for Ireland 2015-2025, which emphasise landscape protection and management.

1.117 The assessment methodology includes identifying the study area, conducting desktop studies to identify landscape designations, and fieldwork to verify landscape character and sensitive visual receptors.

Assessment Methodology and Significance Criteria

1.118 The methodology combines the EPA Guidelines and GLVIA, utilising professional experience to assess landscape and visual impacts. It identifies landscape sensitivity, magnitude of effects, and significance of impacts based on established criteria.

Landscape Assessment Impact Criteria

1.119 Landscape sensitivity is defined based on the capacity of the landscape to accommodate change, using a classification system ranging from very high to negligible sensitivity. The magnitude of effects is similarly categorised, and the significance of impacts is determined through a matrix that assesses both sensitivity and magnitude.

Visual Impact Assessment Criteria

1.120 Visual impacts are assessed based on changes in available views and the response of people to these changes. The sensitivity of visual receptors is classified and evaluated against the magnitude of visual effects, also using a matrix for determining significance.

Characteristics of the Proposed Development

1.121 The proposed development involves the continued operation of an existing limestone quarry, including drilling, blasting, and material processing. The operational life is projected to be 35 years, consisting of 33 years of extraction followed by two years for restoration. The restoration plan aims to return the quarry area to natural habitat, with a phased approach to infill and planting native species to enhance biodiversity.

Baseline Conditions

1.122 The assessment identifies the study area and existing landscape context, detailing land use, vegetation, and visual receptors in the vicinity of the quarry. The surrounding landscape is characterised as rural, with agricultural land and limited urban development.

1.123 The document references the Galway County Landscape Character Assessment, categorising the application site within the Central Galway Complex, which has been assigned a low sensitivity rating due to its established working landscape.

Assessment of Potential Effects

Landscape Effects

1.124 The proposed development is expected to have a slight-imperceptible significance on landscape character due to the existing quarry's presence and the retention of screening vegetation.

Visual Effects

1.125 Visual assessments from various viewpoints indicate that the development will not significantly alter existing views. Most viewpoints reflect a negligible magnitude of change, maintaining overall visual amenity.

Mitigation and Monitoring Measures

1.126 Mitigation measures focus on retaining existing vegetation, enhancing screening, and managing stockpiles to facilitate restoration. The document emphasises the importance of maintaining the visual integrity of the landscape throughout the operational phase.

Cumulative Effects

1.127 The assessment considers potential cumulative effects from nearby developments but concludes that no significant cumulative impacts are anticipated.

Decommissioning Effects

1.128 The restoration plan aims to create a semi-natural landscape post-extraction, enhancing biodiversity and visual coherence with the surrounding area. The anticipated landscape effect post-restoration is classified as moderate-slight beneficial.

1.129 In summary, the LVIA concludes that the proposed limestone quarry development will have limited landscape and visual impacts, with effective mitigation strategies in place to enhance the surrounding environment over time.

Traffic

1.130 PMCE Ltd conducted the assessment to determine the traffic impacts of the quarry operation, referencing various guidelines and documents published by Transport Infrastructure Ireland (TII) and local development plans. The primary objective is to quantify the trips generated by the development and assess their impact on the road network.

Existing Conditions

1.131 The proposed quarry site is situated in a rural area characterised by agricultural land and residential properties. The existing access road from the L2112 Local Road is shared with an adjacent (currently closed) quarry. The document describes the operational characteristics of the quarry, including limestone extraction and processing activities.

Road Network

1.132 The L2112 is a local road connecting to the R333 Regional Road, with specific characteristics including width, speed limits, and traffic volumes. Traffic counts were performed at various junctions to establish the current traffic conditions.

Traffic Volumes

1.133 Traffic counts were conducted on May 21, 2024, at key junctions, with vehicles categorised into several types. The data collected was used to calculate the Annual Average Daily Traffic (AADT) for each junction, revealing significant insights about existing traffic patterns.

Trip Generation

1.134 The assessment estimates that the quarry will export up to 300,000 tonnes of material annually while importing 15,000 tonnes for restoration purposes. Daily trips associated with these activities have been calculated based on operational parameters.

Trip Distribution & Composition

1.135 The distribution of development traffic on the adjacent road network is based on existing traffic flow data. The document provides a summary of predicted daily trips, accounting for quarry exports, imports, staff movements, and miscellaneous trips.

Traffic Growth

1.136 Future traffic flows were projected using TII guidelines, which recommend assessing traffic in the Opening Year and subsequent years. A central growth scenario was adopted for the analysis.

Link Capacity Assessment

1.137 The L2112's capacity was evaluated against TII guidelines, indicating it can accommodate projected traffic volumes without exceeding the Level of Service D capacity.

Junction Capacity Analysis

1.138 The document details a capacity analysis for key junctions using the Junctions 9 computer program, confirming that both the L2112/Site Access and R333/L2112 junctions will operate within capacity for the assessment years.

Road Safety

1.139 Visibility at the quarry access was assessed, noting limitations due to road alignment and vegetation. Despite these limitations, the access has no recorded collisions, suggesting it remains safe for quarry traffic.

Conclusions

1.140 The assessment concludes that the proposed development will have an imperceptible impact on traffic flows and road safety. The existing access and parking provisions are deemed adequate for the anticipated traffic associated with the quarry operations.

Proposed Mitigation Measures

1.141 It is suggested that no additional mitigation measures are required due to the minimal impact on the surrounding road network.

Monitoring

1.142 Post-development monitoring is not proposed, as future assessments indicate that the local road network will continue to operate within capacity.

Cultural Heritage

1.143 The assessment involved a comprehensive review of the Galway County Development Plan 2022-28, which includes relevant objectives and policies. It was noted that there are no structures listed in the Record of Protected Structures or the National Inventory of Architectural Heritage within the application site. A field inspection confirmed the absence of significant architectural structures in the vicinity of the site.

Archaeological Findings

1.144 The examination of the Record of Monuments and Places revealed no Recorded Monuments located within the application area. The assessment concluded that there would be no direct or indirect effects on known archaeological or cultural heritage items within the vicinity of the site. Consequently, no mitigation measures are deemed necessary.

Proposed Development

1.145 The proposed development includes the continued use of the existing quarry, which encompasses drilling, blasting, crushing, and processing of materials over an area of 15.09 hectares. Additional components include the construction of a new quarry storage yard and the relocation of existing structures. The operational life of the quarry is projected to last for 35 years, followed by a restoration phase.

Methodology

1.146 The assessment methodology involved consulting various archival sources and conducting a visual inspection of the application area. The study complied with the requirements of Directive EIA 2014/52/EU, focusing on identifying and evaluating the potential effects on cultural heritage resources.

1.147 The study also categorised the effects based on their significance, ranging from imperceptible to profound effects. The assessment emphasised the importance of understanding the extent, context, and probability of potential effects.

Historical Context

1.148 The chapter provides a detailed historical context of the application area, highlighting significant periods from prehistoric to post-medieval times. It outlines the archaeological and historical development, including notable dynasties and settlement patterns in the region.

Conclusion

1.149 In conclusion, the assessment determined that there are no items of cultural heritage or buildings of heritage interest within the application area. The proposed quarry development will not adversely affect any known archaeological or cultural heritage resources, and therefore, no mitigation measures are required.

Material Assets

1.150 The chapter aims to assess the impact of the proposed development on material assets, which includes natural resources such as land, soil, water, and air, as well as human-made assets like roads and public utilities. The assessment is conducted by Quarry Consulting on behalf of Mortimer Quarries Ltd., led by an experienced town planning consultant, Irene Curran.

Material Assets of Human Origin

1.151 The assessment identifies several human-origin material assets, including:

- **Land Use**: The site is located in Co. Galway, characteried by a mix of agricultural land and residential properties.
- **Property**: The ownership history of the site is summarised, indicating various planning permissions granted for developments related to the quarry.
- **Transport Network**: The document discusses the existing road infrastructure that facilitates transportation to and from the site, including the N83 and M18 roads.
- **Recreational Facilities**: The proximity of recreational resources such as Knockmaa Nature Reserve is noted.
- **Public Utilities**: The existing connections to electricity and water supply are outlined, indicating minimal impact on these utilities.

Material Assets of Natural Origin

1.152 The assessment also covers natural-origin material assets, including:

- **Land Resources**: The existing land resources at the site are described, including the operational quarry and its surrounding environment.
- **Geological Resources**: The site is situated on the Knockmaaa Formation, which is significant for its geological heritage.
- **Natural Resources**: The assessment notes the limited tree cover and surrounding woodlands.
- **Raw Materials & Waste**: The document discusses the efficient use of raw materials in the quarry operations and the management of waste generated.

Assessment Methodology

1.153 The effects of the proposed development are assessed based on established criteria, including the extent, context, and significance of effects on material assets. The study area encompasses several electoral divisions within a 5km radius of the application site.

Identification and Description of Potential Effects

1.154 The assessment identifies both beneficial and adverse effects of the proposed development on material assets. Positive effects include improved land use and resource management, while negative effects may involve increased traffic and noise pollution during construction.

Mitigation Measures

1.155 The document outlines several mitigation measures to minimise potential impacts on material assets, including waste management procedures and monitoring of environmental factors such as air quality and noise.

Residual Impact Assessment

1.156 Following the implementation of the proposed mitigation measures, the assessment concludes that no significant residual impacts on material assets are anticipated during any phase of the development.

Conclusion

1.157 The EIAR provides a comprehensive evaluation of the potential impacts of the proposed development on material assets, emphasising the importance of sustainable practices and adherence to environmental regulations throughout the project lifecycle. The assessment indicates that while there may be some adverse effects, they are manageable and do not outweigh the benefits of the development.

FIGURES

62.01.PLANNING DRAWINGS SITE LOCATION ETC..dwg

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NOTES

Extract from Ordnance Survey Discovery Series Mapping - Map Sheets: 1224; 1424

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LEGEND

APPLICATION AREA
16.3 Ha.

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MORTIMER QUARRIES LTD.

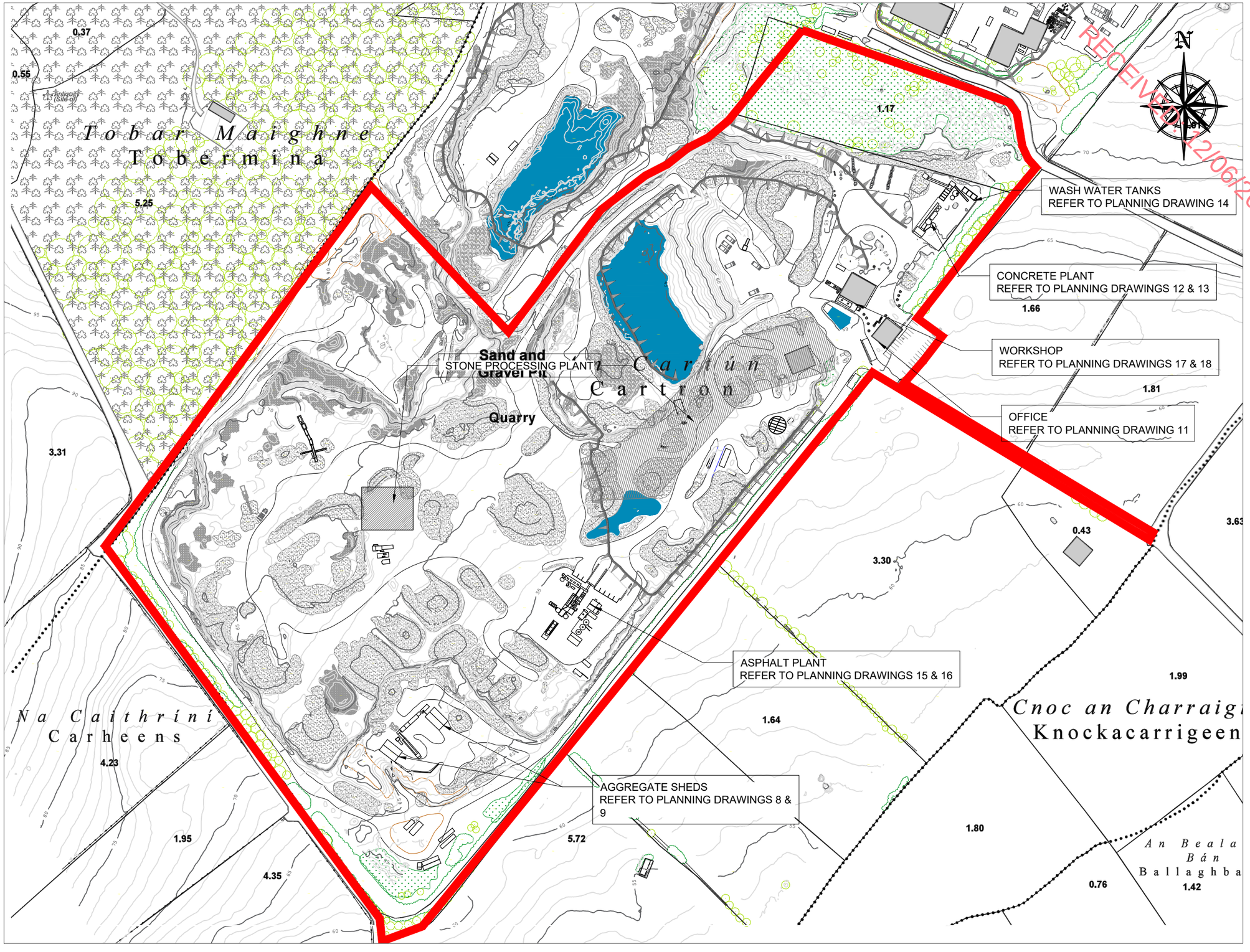
EXISTING LIMESTONE QUARRY
CARTRON, BELCLARE,
CO. GALWAY

SITE LOCATION

FIGURE NTS 1

Scale	Date
1:25,000	JUNE 2025

62.01.PLANNING DRAWINGS SITE LOCATION ETC..dwg



0 80m 200

Metres 1:2500

NOTES

Extract from Ordnance Survey 25 Inch Mapping - Map Sheets: 2880; 2880-A

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TOPOGRAPHICAL SURVEY CARRIED OUT BY QUARRY CONSULTING MAY 2024

LEGEND

APPLICATION AREA
c. 16.3 Ha.

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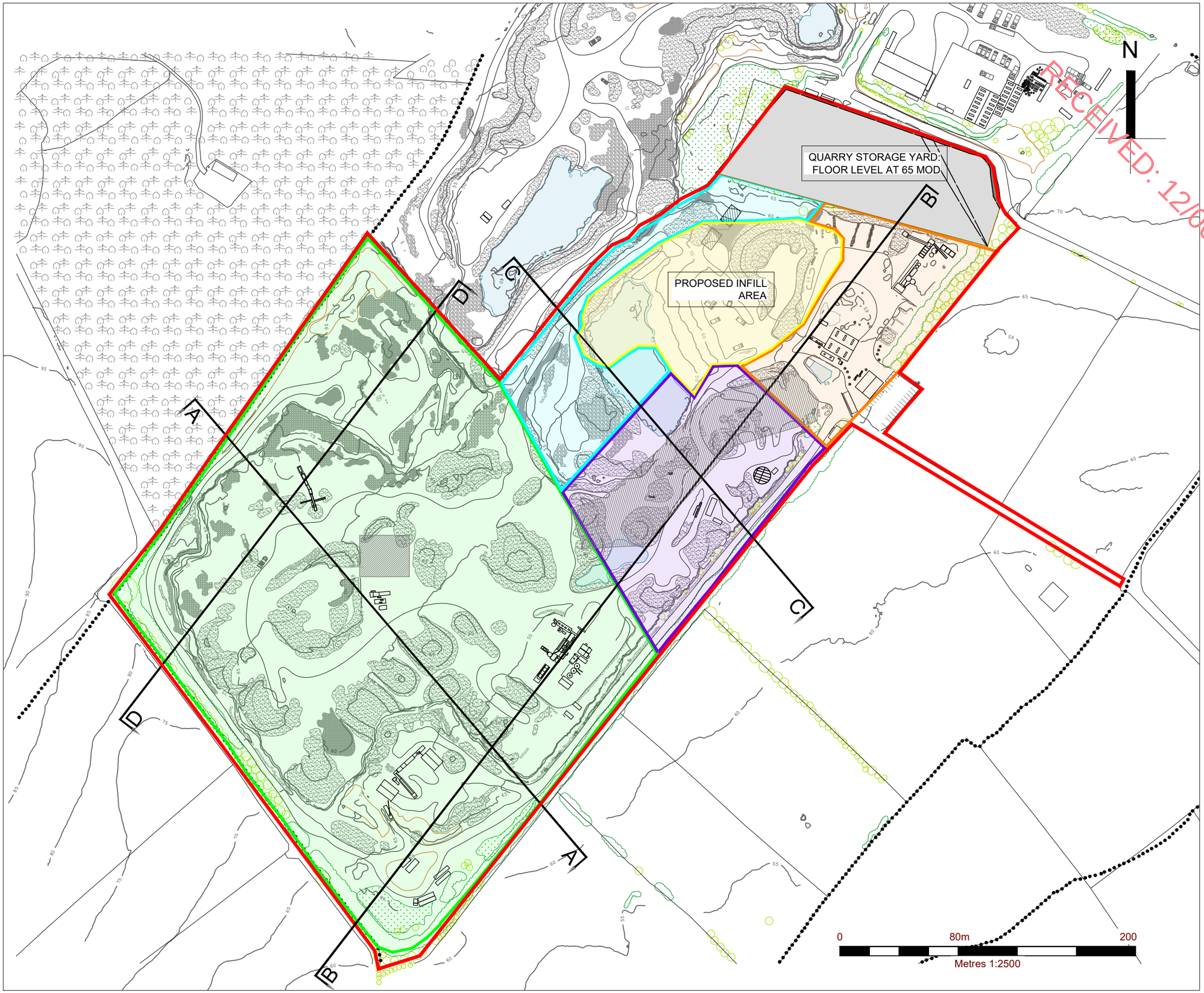
CO. GALWAY

EXISTING SITE LAYOUT

FIGURE NTS 2

Scale	Date
1:2,500	JUNE 2025



NOTES

Extract from Ordnance Survey 25 Inch Mapping - Map Sheets: 2880; 2880-A

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TOPOGRAPHICAL SURVEY CARRIED OUT BY QUARRY CONSULTING MAY 2024

REFER TO FIGURE 3.3 FOR CROSS SECTIONS

Drawing Legend

- Planning Application Boundary
- Phase 1
- Phase 2
- Phase 3
- Phase 4

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PROPOSED SITE LAYOUT

FIGURE NTS 3

Scale	Date
1:2,500 @ A3	JUNE 2025