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ENVIRONMENTAL IMPACT ASSESSMENT SCREENING REPORT

PROPOSED NEW LAWN CEMETERY DEVELOPMENT
AT
FETHARD, CO. TIPPERARY

On behalf of Tipperary County Council

Feb 2023

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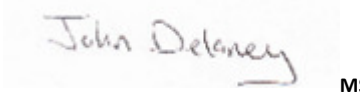
Signed:	 **MSc, BSch HDip Eng** **Environmental Engineer** geoenvironmental ENVIRONMENTAL CONSULTANTS

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1.0 INTRODUCTION

Geoenvironmental Ltd Consultants has been instructed by Tipperary County Council (TCC) to complete an Environmental Impact Assessment (EIA) Screening Report to accompany a Section 8 Planning Application. The application by the Local Authority is with regard to a proposal to construction of a new Lawn Cemetery at Fethard, Co. Tipperary.

This EIA Screening exercise was undertaken to determine if a completed Environmental Impact Assessment is required to be completed in connection with the proposed development works as set out in the mandatory and discretionary provisions of the Planning and Development Act, 2000 (as amended) (the Act) and set in Schedule 5 of the Planning and Development Regulations, 2001 as amended. Certain projects, listed in Schedule 5 of the regulations, due to their always having the potential for significant environmental effects, require mandatory EIA. Others, also listed in the Schedule 5 of the regulations, contain threshold levels and for projects that fall below these thresholds it is the decision of the competent authority to decide if an EIA (and the associated EIAR) is required.

Whether a 'sub threshold' development should be subject to EIA is determined by the likelihood that the development would result in significant environmental effects. Significant effects may arise due to the nature of the development, its scale or extent and its location in relation to the characteristics of the receiving area, particularly sensitive environments.

This report documents the methodology employed to complete the screening exercise, having regard to relevant legislation and guidance documents. It also sets out a clear rationale for each decision made in the process.

The application is also accompanied by an "Article 6(3) Appropriate Assessment Screening Report", which was prepared by INIS Environmental Consultants Ltd and Archaeological and Cultural Heritage Impact Assessment Report Prepared By ÆGIS Archaeology Limited. The findings of both of reports feature in section 6 and 7 of this report.

The findings of all survey reports and assessments which accompany the application and the relevant site and desk studies are referenced where appropriate in this EIA Screening Report.

2.0 SITE LOCATION & DESCRIPTION OF DEVELOPMENT

2.1 Site location

The development site is located on the northern edge of Fethard town at the east side of the R689 road to Killenaule. The site is located 1.1 km north of the town centre. The location where the new multi-denominational cemetery area is proposed currently occupies part of an agricultural field adjacent to the north side of the existing Calvery cemetery. The proposed development site area is approximately 105 m long east to west and 40 m wide north to south aligned with the existing cemetery boundary. The Fethard Community Sports Field home to Fethard Rugby Football Club is located opposite. A location map of the proposed development is set out in Figure 1.0.

2.2 Development Description

The new grave yard will be 0.972 hectares in size. It will be enclosed by masonry boundary walls on all sides and include the following: Main (front) Gate & Disability Access Gate; flexible material cemetery access roads; Access paths to Irish Wheelchair Association Guidelines; Central Reflection Area with seating & planting; Columbarium Walls; Utility Shed & WC. The proposed development will comprise the following elements and be constructed in three phases.

2.2.1 Infrastructure

Phase 1 of the development will include the following: Cemetery Boundary Walls & Gates; provision of 33 No space car park inclusive of 3 Disabled parking spaces to front of burial ground; provision of 522 grave plots inclusive of: access roads & paths; headstone foundation beams; Central Reflection Area; Provision of 'Steeltech' Utility Shed & WC; Waste Soil/Grass Collection Area;

Phase 2 & 3 will provide 435 No plots (Ph.2) and 40 No plots (Ph.3) Sections; 4 No Columbarium Walls; associated infrastructure; All to be constructed as the need arises

2.2.2 Grave Plots

The new graveyard will comprise of 997 new grave spaces in total. At a burial rate of 16 per annum the life of the site will be approximately 62 years.

2.3 Construction Details

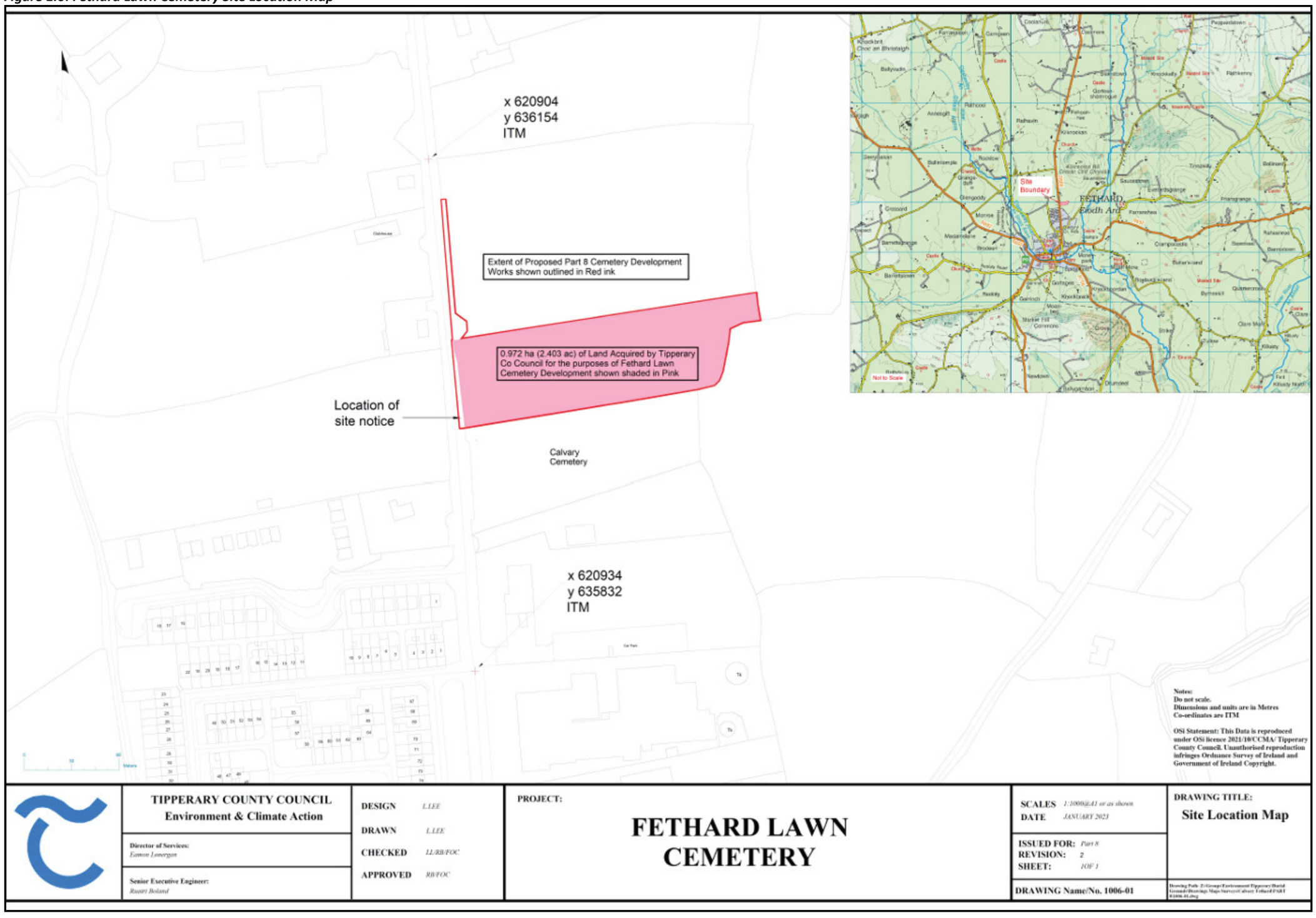
2.3.1 Access Roads and Parking Areas

The construction of internal access roads, footpaths perimeter walls and parking areas will be the main element of the planned site infrastructure. The roads will provide the access to and define the areas where the burial plots will be located. The access roads and parking areas will be installed using the following methodology:

- The area where any excavations are planned will be surveyed in advance and all existing services if present identified in advance.
- A suitably sized mechanical excavator will be used to excavate the areas to a competent sub-grade depth as per the locations outlined in the Detailed Design Drawings which accompany this application.
- All relevant bodies i.e. ESB, Gas Networks Ireland, Eir, Tipperary County Council etc. will be contacted and all drawings for all existing services sought.
- All plant operators and general operatives will be inducted and informed as to the location of any services.
- The excavated material will be set aside for re-use as part of road edge re-instatement and ground preparation of the burial plot areas. Any surplus material will be removed to a suitably licensed or permitted authorised facility.
- The excavation will be infilled with 6F2 or Cl 804 stone material as appropriate The road verge reinstatement and road side landscaping will be completed as the excavations are backfilled with the stone material.
- The internal access roads and parking areas will be finished with a layer of hot rolled asphalt surface.

- The drainage infrastructure will be installed as part of the access roads and parking areas and is further summarised in Section 2.3.4 below. All road and footpath area planned to be constructed in accordance with SUDS best practice.
- It should be noted that the proposed car park will also cater for the adjoining community centre which lies to the west of the proposed burial grounds site.

Figure 1.0: Fethard Lawn Cemetery Site Location Map



2.3.2 Grave Plots

Grave plots are shown to be 1.25m wide by 3.1m long including a 0.4m wide plinth for headstones. (2.7m long for burials). A detailed layout of the proposed lawn cemetery development is illustrated in Figure 2.0.

The layout of the burial plots will be managed by TCC as and when plots are made available. TCC will manage and coordinate the alignment and positioning of the burial plots as per the detailed design drawings which accompany this application. The proposed roads and footpaths will provide access for plot excavation and burials. The initial construction works associated with burial plot will be restricted to ground preparation which will be completed as part of the access road construction. Plot excavation will only occur immediately prior to a burial. Graveplots are shown to be 1.25m wide by 3.1m long including a 0.4m wide plinth for headstones. (2.7m long for burials).

Maximum burial depths are expected to be 2.4m bgl. This is in line with updated Tipperary County Council Burial Ground Bye-Laws. It should be noted that these depths allow a minimum unsaturated zone thickness of 1m beneath all burials.

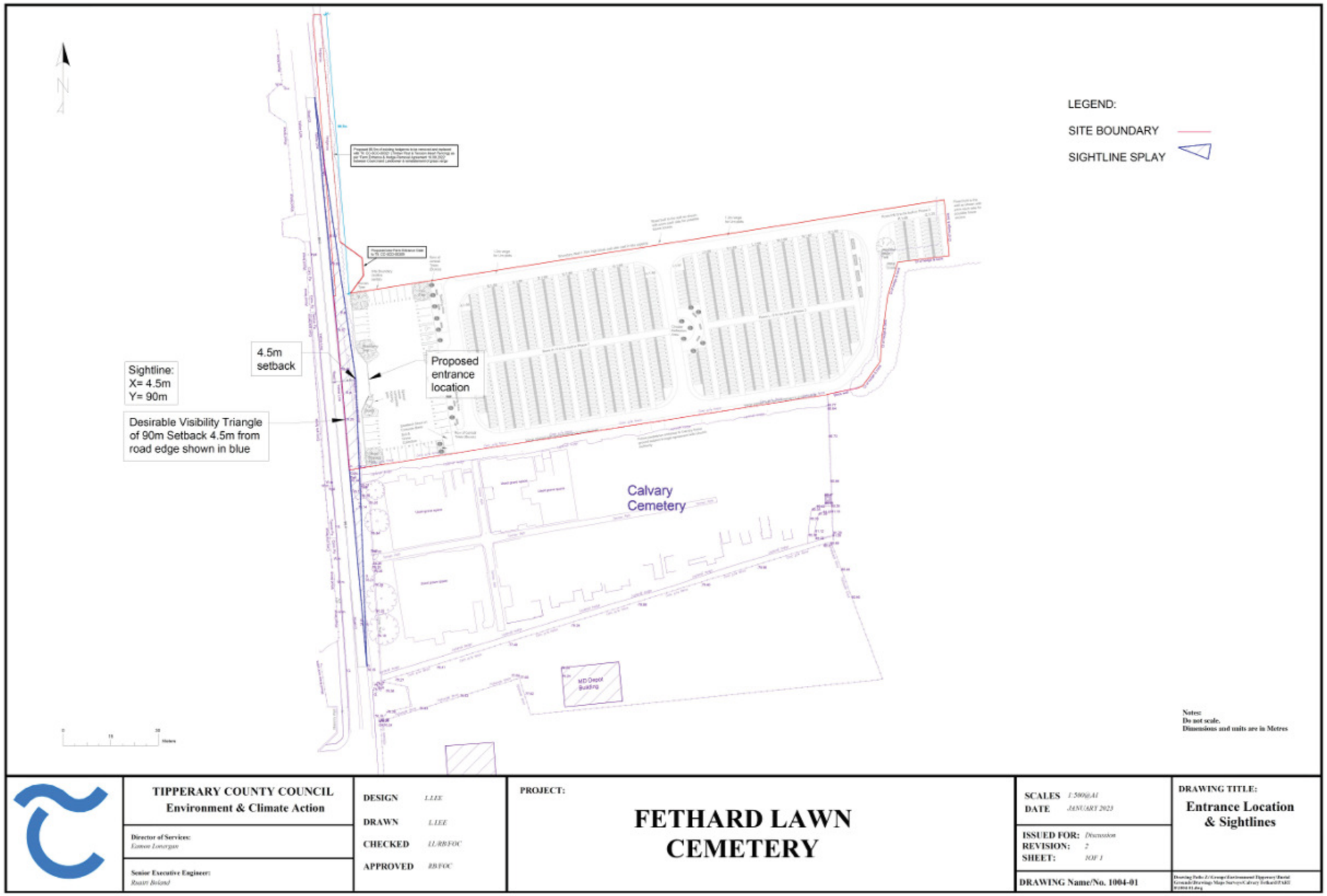
Plots will be surfaced with grass with a narrow plinth for headstones at the head of each row of plots, and with grassed access footpaths. This is in line with Tipperary County Council policy for burial grounds.

3.0 TOPOGRAPHY

The site is at an elevation of about 80 mOD (Figure 1)**.** Kilknockan Hill rises to 130 mOD, 800 m north of the site. A ridge extends south-southwest from the hill towards Fethard, with the ridgeline sloping gently to about 60 mOD at the Clashawley River in the town centre. The site lies on the western side of the ridge, close to the ridgeline. In the vicinity of the site the ridge top and flank is broad with a gentle west-southwest slope.

The land in the vicinity of the site is well drained, with no agricultural land drains or vegetative indicators of poor drainage. There are no streams in the vicinity of the site. A storm water drain runs along the western side of the R689 road adjacent to the site. The Clashawley River flows in a mainly southerly direction towards Fethard approximately 1 km west of the site. The Killenaule Stream also flows in a southerly direction 350m east of the site on the opposite side of the Kilknockan ridge and confluences with the Clashawley River on the eastern side of Fethard town approx 300m east of the town centre.

Figure 2.0: Fethard Lawn Cemetery Layout & Sightlines Plan



4.0 EIA SCREENING

4.1 Screening Methodology

Screening is the first stage in the EIA process, whereby a decision is made on whether or not EIA is required. The EIA screening exercise initially assesses the development for Mandatory EIA using classifications defined in the appropriate legislation. Where no mandatory requirement is concluded, screening advances to sub-threshold development assessment, where the competent authority evaluates whether the project is likely to have a significant effect on the environment, with reference to its **scale, nature, location and context.**

This Screening Assessment was undertaken with regard to the following legislation and guidance:

- European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 (S.I. No. 296 of 2018).
- European Commission Environmental Impact Assessment of Projects, Guidance on Screening (2017).
- European Union Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment (the 'EIA Directive'),
- Guidance on EIA, Screening, European Commission, 2001;
- EIA, Guidance for Consent Authorities regarding Sub-threshold Development, DoEHLG, 2003
- The Planning and Development Regulations 2011-2013 (P&D Regulations)

A key first step within the screening process –is to address the requirement of the EIA Directive that EIA is confined to "projects". While both the Directive and case law determines the extent of this term, as mentioned in earlier posts, the Court of Justice of the European Union (CJEU) has indicated that the embrace of the Directive "has a wide scope and broad purpose" and must catch all projects of environmental significance.

The Directive divides potential EIA projects into two lists, Annex I identifies all major development where EIA is compulsory, with Annex II listing those projects where EIA is necessary when what is proposed is "likely" to be associated with "significant effects on the environment". EU Member states are granted discretion to set thresholds and other decision rules to indicate when such effects are expected, albeit that the possibility of a case-by-case analysis must be retained. Both the national criteria and any case-by-case assessment must be based on the indicative criteria for when EIA is required, which are set out in Annex III to the Directive.

The majority of Annex I to the EIA Directive has been transposed in a near-verbatim manner as Part 1 to Schedule 5 to the Planning and Development Regulations 2011-2013 (P&D Regulations). Most of Annex II is found in Part 2 of that Schedule, with the EU-generated text being supplemented by a series of national thresholds that, when they are exceeded, mandate that an EIS be prepared. In cases where a project is mentioned in Part 2 but is classed as "sub-threshold development", it is usually necessary for a planning authority to undertake a case-by-case examination about whether the development is likely to be associated with significant effects on the environment. In other

words, screening for whether EIA is needed must be done. Schedule 7 to the P&D Regulations, which mirrors Annex III to the Directive, sets down criteria to aid such a decision.

4.2 Sub-threshold Development (Discretionary) EIA Screening

Other infrastructure projects may require EIA as outlined in Annex II of the EIA Directive: Irish legislation, which implements the EU EIA Directive, addresses the possible need for EIA below the mandatory thresholds. There is a requirement to carry out EIA where the competent/consent authority considers that a development would be likely to have significant effects upon the environment.

The key issue for the competent/consent authority in the context of the possible need for EIA of sub-threshold is whether or not such development is likely to have significant effects on the environment. Consideration of significant effect should not be determined by reference to size only. The nature and location of a project must also be taken into account.

The 1997 amending Directive (97/11/EC) introduced guidance for Member States in terms of deciding whether or not a development is likely to have 'significant effects on the environment'. The criteria have been transposed in full into Irish legislation, in the Third Schedule to the EC EIA (Amendment) Regulations 1999 (S.I. No. 93 of 1999) and in Schedule 7 to the Planning and Development Regulations 2001 (S.I. No. 600 of 2001). The European Union EIA Directive which was updated 2011 was transposed into National law in 2018 by the European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 (S.I. No. 296 of 2018).

The criteria as transposed in Irish legislation are grouped under three headings:

1. **Characteristics of the Proposed Development**
2. **Location of Proposed Development**
3. **Characteristics of Potential Impacts**

The DoEHLG Guidance Document Environmental Impact Assessment (EIA) Guidance for Consent Authorities regarding Sub-threshold Development states that "those responsible for making the decision must exercise their best professional judgment, taking account of considerations such as the nature and size of the proposed development, the environmental sensitivity of the area and the nature of the potential effects of the development. In general, it is not intended that special studies or technical evaluations will be necessary for the purpose of making a decision".

Additionally, the screening process can be aided using the European Commission publication, Guidance on EIA Screening (June 2001) checklists, particularly the "Screening Checklist" and the "Checklist of Criteria for Evaluating the Significance of Environmental Effects".

The criteria associated with each category, (i.e. the criteria that must be taken into account when making screening decisions on a case by case basis) is presented in Table 1.3 (below). The requirements as set out below have been considered in the context of the proposed new cemetery development, and a description of the potential impacts on the environment from the proposed project are outlined in Sections 5.0, 6.0 and 7.0.

Table 1.3 Article 27 Screening Criteria for Determining Likely Significant Effects

1. Characteristics of proposed development

The characteristics of proposed development, in particular:

- *the size of the proposed development,*
- *the cumulation with other proposed development,*
- *the use of natural resources,*
- *the production of waste,*
- *pollution and nuisances,*
- *the risk of accidents, having regard to substances or technologies used.*

2. Location of proposed development

The environmental sensitivity of geographical areas likely to be affected by proposed development, having regard in particular to:

- the existing land use,
- the relative abundance, quality and regenerative capacity of natural resources in the area,
- the absorption capacity of the natural environment, paying particular attention to the following areas:

(a) wetlands,
(b) coastal zones,
(c) mountain and forest areas,
(d) nature reserves and parks,
(e) areas classified or protected under legislation, including special protection areas designated pursuant to Directives 79/409/EEC and 92/43/EEC,
(f) areas in which the environmental quality standards laid down in legislation of the EU have already been exceeded,
(g) densely populated areas,
(h) landscapes of historical, cultural or archaeological significance.

3. Characteristics of potential impacts

The potential significant effects of proposed development in relation to criteria set out under paragraphs 1 and 2 above, and having regard in particular to:

- the extent of the impact (geographical area and size of the affected population),
- the transfrontier nature of the impact,
- the magnitude and complexity of the impact,
- the probability of the impact,
- the duration, frequency and reversibility of the impact.

5.0 CHARACTERISTICS OF PROPOSED DEVELOPMENT

The characteristics of proposed development, in particular:

- the size of the proposed development,
- the cumulation with other proposed development,
- the use of natural resources,
- the production of waste,
- pollution and nuisances,
- the risk of accidents, having regard to substances or technologies used.

5.1 Size and Scale of the Project

The development of extended burial grounds are sub-threshold under the relevant legislation as set out in Section 4.2. The size of the proposed burial ground development at 0.972 hectares is limited in area and scale. The geographic extent of the proposed works are confined to the immediate area of the proposed site. Accordingly, there some minor impacts associated with the development phase, but these are considered to be short-term. The active works area comprises the access road and parking area excavation and construction, services and burial plot ground preparation. This scale of works is not considered significant.

5.2 Cumulation with Other Projects

Information on the site and the area of the proposed development was examined prior to the completion of this screening. The following data sources were reviewed in order to complete a thorough examination of all impacts:

- National Parks and Wildlife
- Environmental Protection Agency (EPA)- Information pertaining to water quality, and
- geology and licensed facilities within the area.
- Tipperary County Council (e-plan website)– Information on planning history in the area in order to ascertain potential cumulative impacts.
- Web search for major infrastructure projects in the Fethard Area.
- South Tipperary County Development Plan (2009 as varied))
- Settlement Plan for Fethard 2017

The cumulative impact of the development in combination with existing baseline development is not significantly worse than any of the individual impacts associated with the construction and operation of the proposed development. There has been two successful planning applications granted in the vicinity of the site in the previous 4 years. They are as follows:

PL Ref No	Address	Applicant	Description	Grant Date
15/5000978	Kilknockan Fethard	Thomas and Finola Anglim	(a) demolition of existing garage and single story extension and (b) construction of new single story extension	17/11/2015
18/601221	Kilknockin Fethard	John Halley Equine Hospital	New 16 stable steel frame & cladded barn and associated site work	14/12/2018

5.3 Use of Natural Resources

Construction of the proposed development will require the use of natural resources such as soil and land and water wherever possible. Having regard to the scale and nature of the proposed development, use of natural resources during construction is predicted to be minimal.

The proposed development will aim to reuse site-won material where possible. However, there will be a need for resources (e.g., aggregate, asphalt, concrete etc) as part of the new burial ground construction phase.

5.4 Production of Waste

The construction phase of the new lawn cemetery will give rise to small quantities of Construction and Demolition (C&D) waste such as concrete, asphalt and soil. A significant portion of the clean soil and subsoil excavated during the development phase will be reused on site. A Waste Management Plan will be prepared in advance of the construction phase of the proposed development. All waste arisings will be transported off site by an approved Waste Contractor holding a current waste collection permit. All waste arisings requiring re-use, recycling, recovery or disposal off site will be transported to facilities holdingan appropriate certificate of registration, licence or permit, as required. Any waste arising on site will be taken from the site for reuse or disposal, subject to normal statutory controls.

5.5 Pollution and Nuisances

Potential effects during construction and operation of the extended cemetery include effects on water quality, air quality, traffic and nuisances and disruption caused by construction such as noise, vibration and dust. Further consideration of the potential impacts is provided in Section 7.

5.6 Risk of major accidents and/or disasters

The 2014 EIA Directive amendment introduced the requirement to assess the *'expected effects deriving from the vulnerability of the proposed development to risks of major accidents or disasters that are relevant to the proposed development'*. The term major accidents and disasters refers to events both internal and external to a proposed development that have the potential to cause significant harm to the environment, and generally relates to extreme events that would not reasonably be predicted or assessed within the other topic chapters of an EIA.

Construction activities to be undertaken as part of the proposed development will be minor in nature, well understood and are commonly undertaken. No risk of major accidents/disasters are therefore identified. The proposal incorporates 32 additional off-road car parking spaces which will

remove any requirement for on-road parking. The entrance to the extended facility from the public road will comply with the sight-lines and set-back distances. The entrance will be set-back 4.5m from the public road and achieve a minimum of 90m sight-lines in both directions. The site-lines information is illustrated in Figure 2.0 of this report.

5.7 Characteristics Overview

The magnitude of the proposed works, when viewed individually and cumulatively, is small in the context of both the EIA threshold criteria and types of projects listed in the regulations which require EIA.

The works will be undertaken in accordance with sustainable construction methodologies designed to reduce or eliminate wherever the potential for environmental impacts during the development phase.

The works will comprise the installation of access road internal access roads and footpaths, parking areas, perimeter wall and the ground preparation of burial plots and will involve the site excavation and the installation of roads and the foundation for walls. The construction work areas will be reinstated where possible with landscaped areas provided where shown. The proposed works will be restricted to the 0.972 hectare site and is therefore limited in terms of potential impact in a wider context.

6.0 LOCATION OF PROPOSED DEVELOPMENT

6.1 Existing Land Use

The proposed development is currently in agricultural use as are the lands located to the north and east of the proposed development. The application proposal is less than 1 hectare in size. The proposed site is located in a rural area, close to Fethard Town, approximately 1km north of the town centre. The land-use in the area is predominantly agricultural and improved agricultural grassland is the dominant habitat in the lands surrounding the sites. The existing cemetery is located at the southern site boundary of the proposed new cemetery development. A Tipperary Co. Co. depot and the Ribworld food processing industry are present south of the existing burial ground. The Fethard Community Sports Ground comprising of a club house and various playing pitches is located to the west of the R689. To the north of the playing pitches there is an equine hospital. There are a number of domestic residences along the public road to the north.

The land-use in the area is predominantly agricultural and improved agricultural grassland particularly to the north and east and this is the dominant habitat in the lands surrounding the site Other habitats represented locally include hedgerows, and tree lines

6.2 Relative Abundance, Availability, Quality & Regenerative Capacity of Natural Resources

The proposed development will have minimum impact on the quality and regenerative capacity of natural resources in the area. The site development works will be minimal and have no measurable impact on the relative abundance or regenerative capacity of local natural resources. Where possible all materials products to be used in the development will be sourced locally in line with the proximity principle.

6.3 Absorption capacity of the natural environment

(6.3.1) wetlands,
(6.3.2) coastal zones,
(6.3.3) mountain and forest areas,
(6.3.4) nature reserves and parks,
(6.3.5) areas classified or protected under legislation, including special protection areas designated pursuant to Directives 79/409/EEC and 92/43/EEC,
(6.3.6) areas in which the environmental quality standards laid down in legislation of the EU have already been exceeded,
(6.3.7) densely populated areas,
(6.3.8) landscapes of historical, cultural or archaeological significance

6.3.1 Wetlands (awaiting ecologist AA Screening report)

There are no wetlands/natural fen areas within 5kms of the proposed development site and therefore it can be concluded that there are no obvious constraints to the completion of the proposed new cemetery development at the chosen location.

6.3.2 Coastal Zones

The proposed development is located in land some 60kms from the coast so there will be no impact on the coastal zone. There is tidal section of the River Suir is located > 20km from the proposed development.

6.3.3 Mountains and Forest Areas

There are no mountains or forested areas in the immediate area of the proposed development. There exists small clusters of woodland area 500m nth and 1km North-East of the study location. There will be no measurable impact from the proposed development on these limited wooded areas.

6.3.4 Nature Reserves and Parks

There are no nature reserves or parks affected by the proposed development

6.3.5 Areas classified or protected under legislation, including special protection areas designated pursuant to Directives 79/409/EEC and 92/43/EEC

A precautionary distance of 15 km was chosen for the Zone of Influence of the proposed works to evaluate the potential for significant effects on European sites, alone and/or in-combination with other plans or projects. There are two Special Area's of Conservation (SACs) within 15 km of the proposed works. The River Barrow and River Nore SAC (002162) is located 13.1km from the development and the Lower River Suir SAC (002137) 1.5km. The habitats within the site were evaluated as of Local Importance as part of the Appropriate Screening Report. The Appropriate Assessment Scoping Report also completed by found that no habitats of ecological significance occur adjacent to or within the proposed development site. No other ecological constraints, such as the presence of mammals or evidence of their usage of the property and surrounding area were recorded as part of the findings, nor were any high-impact invasive species.

6.3.6 Areas in which the environmental quality standards laid down in legislation of the EU have already been exceeded

No relevant National or EU Environmental Standards or Limit Values will be exceeded arising from the proposed development. There will be no discharges to the environment arising from the proposed development. Discharges to groundwater from future decomposing bodies will have no measurable impact on groundwater. Any fugitive emissions or any other airborne emissions during the development and operational phase of the proposed development will be negligible and not exceed any of the EU or National limit values in place.

6.3.7 Densely Populated Areas

The development is not expected to affect any densely populated areas. The site is located on the outskirts of Fethard town. The town has a population of 1,545 inhabitants (C.S.O. Census, 2016). Given the scale of the development and the implementation of best practice guidelines, there will be no negative impacts to the inhabitants of the town from the construction and operation of the proposed development. The impact on road users as a result of the proposed development is unlikely considering the scale of the proposed development. Any additional increase in traffic as a result of the development will be minimal and confined to occasional events.

6.3.8 Landscapes of historical, cultural or archaeological significance

The Archaeological and Cultural Heritage Impact Assessment report has concluded that the proposed development site It does not contain any Protected Structure or recorded archaeological monument. No previously unrecorded archaeological features were discovered during the site inspection carried out as part of the assessment.

6.4 Environmental Sensitivity Findings

All works will be confined to the proposed 0.972 hectare site. The potential for any direct or indirect impact on the natural or built environment and/or on any associated habitats is low and the likelihood of any significant effects occurring as a result of the works can be excluded.

7.0 CHARACTERISTICS OF POTENTIAL IMPACTS

7.1 Human Beings

The potential impacts are not considered to be significant. During construction there is the potential for temporary minor impacts related to traffic inconvenience, dust and noise. The active works area will be limited so potential impacts will be restricted in their geographic extent as well as their duration.

7.2 Flora & Fauna

No flora and fauna of ecological significance or sensitivity were recorded on or adjacent to the proposed development site. The Appropriate Assessment Screening Report prepared by INIS Environmental Consultants Ltd found that the proposed development is not directly connected with, or necessary to, the management of any protected European designated site. The report also concluded that the proposed development will not give rise to likely significant effects on the qualifying interests of any Special Area of Conversation (SAC) or Special Protection Area (SPA), in view of the conservation objectives of the European sites concerned.

7.3 Soils & Geology

The development will be carried out in accordance with the environmentally sensitive construction methods and environmental management systems. Excavated soil and subsoil will be reused as part of site reinstatement and landscaping wherever possible. Any soil or other un-usable or surplus material will be taken from the site for reuse or disposal at another authorised facility and will be subject to normal statutory controls regarding waste transport and management. Each burial process will required the removal of soil and subsoil but it is envisaged that all excavated material will be re-used as backfill within the grave plot or elsewhere within the graveyard for landscaping purposes.

7.4 Surface Water & Ground Water

The construction phase will be carried out in accordance with detailed methodologies and mitigation proposals to ensure that potential impacts on water are either eliminated or reduced to low levels. The Tier 2 Groundwater Impact Assessment completed as part of the assessment works identified the groundwater in the bedrock aquifer underlying the site, and the Rivers Clashawley and Killenaule located 450m and 1km south and southeast of the site, as receptors that could potentially be impacted by contaminants mobilised from the proposed burials by groundwater recharge infiltrating through site.

There will be no discharge to surface water from the proposed development site. All storm water-off from the proposed development will be managed on site and discharged to ground via suitably designed SUDS infiltration area or discharged to the existing drain located at the roadside boundary. The volume of storm water to be managed should be calculated using a 1:100 critical duration event scenario. Potential impacts on water quality are considered to be negligible.

The likely number of burials in Fethard will be 16 on average per year. A human corpse normally decays within 10 to 12 years. It is estimated that over half of the pollutant load leaches within the first year and halves year-on-year. Less than 0.1 per cent of the original loading may remain after 10 years.

The Tier 2 Hydrogeologial Assessment and quantitative risk assessment process completed by Hidrigeolaíocht Uí Chonaire Teoranta showed that the concentration of each of the contaminants of concern associated with the proposed burials would be attenuated to below their respective Surface Water Regulations (SI 272 of 2009) threshold by the time the groundwater flowing beneath the proposed site reached the zone of groundwater discharge to Rivers Clashawley and Killenaule down gradient of the site.

The quantitative risk assessment also predicted that concentrations of contaminants of concern will be attenuated to less than their respective SI 366 of 2016 threshold values by the time the infiltrating recharge mixes with the up-gradient groundwater flow in the deep preferential groundwater flow paths.

A de-composing body will result in no List 1 or list 2 dangerous substances being discharged to ground; however formaldehyde which is a highly toxic substance is used in the embalming process. An embalmed body can contain up to 180g of formaldehyde in 9 litres of embalming fluid. Assuming that approximately half of this is degraded rapidly in the decomposition process and with grass surface cover controlling the rainfall infiltration the initial concentration in the resultant effluent would be 90mg/l reducing to 5 mg/l after 4 years and to 0.1-1 mg after 10 years.

The embalming of bodies occurs in between 50-80% of burials in Ireland however the percentage tends to be lower in rural communities. The estimates for formaldehyde also take no account of the natural degradation of formaldehyde in the ground so the concentrations are likely to be lower. The impact of formaldehyde on water quality from the proposed cemetery development would be very low.

7.5 Air & Climate

Potential short-term low probability impact on air quality in particular dust emissions during construction activities however this will be managed through best practice measures. The proposed development is not a recognised emitter of greenhouse gases with the potential to effect climate change. Plant and equipment utilised during construction and as part of the operational phase will use fossil fuels, but the potential impact associated with this is immaterial due to the short-term scale of the works. No significant impact anticipated. The only emissions to air will be fugitive emissions from plant and machinery vehicles used in the construction phase and by attendees at burials should the facility come into used. The concentrations of particulate matter, nitrous oxide and carbon dioxide are insignificant and are likely to become even less significant going forward as the switch towards hybrid and electric vehicles gathers pace.

The burial process will result in the excavation of the grave plot with excavated soil and subsoil stored for short periods before the burial is complete. The storage of such material over short periods will not result in any measurable dust deposition with no requirement for dust suppression methods deemed to be necessary.

7.6 Noise & Vibration

There exists potential short-term noise impact during construction activities however this will be managed through best practice measures. Works should be confined to day-time hours (8am-8pm) and where possible noise impact from the construction works to be maintained below 55 dB LAeq 30 at the nearest Noise Sensitive Receptors (nearby dwelling houses). No significant noise nuisance impact is anticipated.

7.7 Landscape

Long Term, Slight Neutral landscape and visual Impact. The subject works relate to the provision of a burial ground and associated infrastructure in a rural landscape. No measurable impact is anticipated as the 0.982 hectare development is small in scale and will have no visual impact.

7.8 Traffic

Access to the proposed development will be from the R689 Regional Road which connects the towns of Fethard and to Killenaule. This road serving the proposed development is a single carriageway. This roadway is, in general, modestly trafficked and no delays or queues occur in the vicinity of the proposed development. No on-road parking is planned or permitted as part of the development which will minimise any likelihood of traffic queues or probability of traffic accidents as a result of the proposed development.

7.9 Material Assets

Potential short-term low probability impact. During construction there is the potential for temporary minor impacts related to traffic inconvenience.

7.10 Cultural Heritage

The Archaeological and Cultural Heritage Impact Assessment completed by AEGIS Archaeology Limited found that there are no recorded archaeological monuments within the boundary of the proposed development. However, the report concludes that due to its scale, it is predicted to have potential to yield archaeological features and/or artefacts subsurface. One of the findings predicts that the proposed works may possibly have a negative impact on potential unrecorded subsurface archaeological remains. The report proposes that that principal measure to mitigate against any potential impact is to undertake a geophysical survey followed by archaeological testing under licence.

7.11 Environmental Impacts Appraisal

Overall the charactisation of the potential Environmental impacts associated with the proposed development will be low and for the most part negligible. Significant environmental effects can be ruled out at this point in the Environmental Impact Assessment process without a requirement for further surveys, investigations and assessments.

8.0 CONCLUSIONS

The proposed lawn cemetery development is sub-threshold under the EIA Assessment process. This EIAR screening report has been carried out in accordance with a methodology that is based on Environmental Impact Assessment (EIA), Guidance for Consent Authorities regarding Sub-threshold Development (DEHLG, 2003), Guidelines on information to be contained in EIA (EPA, 2002) and the European Commission Environmental Impact Assessment of Projects, Guidance on Screening (2017).The Guidelines on the Information to be Contained in Environmental Impact Assessment Reports, Draft August 2017 (EPA, 2017) was also consulted.

It is concluded that the characteristics of the potential impacts are not considered to be significant. There are no long-term negative impacts which can be associated with the project. Whilst temporary noise levels and disturbance are typical of any construction phase, the proposed works are generally remote from sensitive receptors and any potential impact will be short term and effectively managed through best practice measures. No impact interactions have been identified. No likely significant long-term or permanent negative environmental impacts have been identified in the course of the screening process. All works will be confined to the proposed 0.972 hectare site.

The findings from the other relevant reports completed as part of the assessment process have shown that the potential for any direct or indirect impact on groundwater and/or protected areas is low and the likelihood of any significant effects occurring as a result of the works can be excluded.