

CUNNANE STRATTON REYNOLDS

Consent of copyright owner required for any other use.

Proposed Construction, Demolition and
Excavation Waste Recovery Facility

Wallingstown, Little Island,
Co. Cork

Landscape and Visual Impact Assessment

Prepared By

CUNNANE STRATTON REYNOLDS
Copley Hall, Cotters Street, Cork.
Tel No: 021 496 9224
Fax No: 021 496 9012
E-Mail: info@csrlandplan.ie

For Golder Associates

March 2008

Contents

1.0. Introduction

- 1.1. Landscape and Visual Impact

2.0. Methodology

- 2.1 Introduction
- 2.2 Classification of Impacts
- 2.3 The Visual Envelope
- 2.4 The Capacity of the Receiving Environment to Accommodate Change
- 2.5 Assessment of Viewpoints

3.0. Description of the Proposed Development

- 3.1. Uses
- 3.2. Form
- 3.3. Design and Materials
- 3.4. Potential Impacts of the Proposed Development

4.0. Description of the receiving Environment

- 4.1. Plans and policies
- 4.2. Description of Environment
 - 4.2.1 Micro Landscape
 - 4.2.2 Macro Landscape
 - 4.2.3 Summary

5.0. The Capacity of the Receiving Environment to Accommodate Change

- 5.1. Landscape Impact
- 5.2. Visual Impact (Inclu. Viewpoints 1 – 7 assessments)

6.0. Landscape and Visual Impact Assessments - Conclusions

- 6.1. Landscape Character
- 6.2. Visual Impact
- 6.3. Conclusions

7.0. Mitigation

For inspection purposes only.
Consent of copyright owner required for any other use.

1.0. Introduction

The following chapter presents the Landscape and Visual Impact Assessment (LVIA) for the proposed development of a Construction, Demolition and Excavation Waste Recovery Facility (CD&E Facility) at a site in Wallingstown and Inchera, Little Island, Cork. The LVIA has been prepared by Cunnane Stratton Reynolds Ltd (CSR).

1.1. Landscape and visual impact

This assessment is in accordance with the EPA's *Guidelines on the Information to be Contained in an Environmental Impact Statement, 2002*, and the Landscape Institute (UK) *Guidelines for Visual Impact Assessment, 2002*.

These documents prescribe that landscape and visual impact are assessed as two discrete topics. Landscape impact assessment is concerned with the alteration to the physical landscape which may give rise to changes in its character, how it is experienced and hence the ascribed value of the landscape, the term townscape is often used to describe the urban landscape. Visual impact assessment is concerned with changes that arise in the composition of available views, the response of people to these changes and the overall effects on the area's visual amenity. Visual change is the alteration to a view; visual impact is the assessment of the significance of that change.

Also consulted in undertaking this study were:

- *Department of the Environment and Local Government's Draft Landscape and Landscape Assessment Guidelines.2003*
- *Cork County Development Plan*

In order to meet the requirements of the relevant guidelines, the landscape and visual impact assessment takes the following form:

- *Description of the proposed development.* The design and components of the proposed development are discussed with relevance to landscape character and visual issues.
- *Description of the receiving environment.* This explains the landscape context in which the proposed development would take place. It identifies the visual envelope and establishes a basis for, (a) the assessment of impact on the landscape / townscape (urban fabric, character, characteristics, quality and zone of visual influence); (b) the assessment of visual impact on critical and / or representative viewpoints within the development's zone of visual influence.
- *The receiving environment and its capacity to accommodate change.* This will discuss landscape / townscape character impact and visual impact and will include a detailed

assessment of the proposed development from selected / representative viewpoints within the developments zone of visual influence.

- *Conclusion.* Finally a conclusion is drawn as to the appropriateness of the proposed development in landscape and visual impact terms and if necessary mitigation for excessive impact proposed. Results are summarised and mapped for short and long-term impact.

For inspection purposes only.
Consent of copyright owner required for any other use.

2.0. Methodology

2.1. Introduction

An initial desk study of topography, landform, location of archaeologically significant areas/features, ecological designations and scenic views and prospects were carried out using OSI maps and Heritage Council data. Other man-made features such as built environment and land-use were also taken into consideration. The Cork County Council Development Plan and Carrigaline Electoral Area Local Area Plan were consulted to help identify landscape character areas and significant landscape features.

The Application Site was surveyed during a site visit in January 2008, when the main landscape features and the landscape character of the area were identified and evaluated in terms of their vulnerability/sensitivity. The potential for visual impact from key locations in the vicinity of the site was assessed and further evaluated using photographic views.

Landscape impacts were analysed based on:

- The capacity of the existing landscape to absorb the proposed development; and
- Effects on landscape character and features (e.g. removal or alteration) as well as on the landscape values.

Visual impacts are evaluated taking account of:

- The visual envelope or zone of visual influence;
- The potential level of visual intrusion (i.e. effect impinged upon a view); and
- The potential for visual impact dependent on the proximity and extent of the proposed development to a sensitive viewpoint/ visual receptor.

2.2. Classification of Impacts

This section describes the classification of impacts relating to landscape and visual impacts which are addressed in Section 5.0. Key issues in relation to visual impacts are the nature of the visual receptors within the visual envelope i.e. the nature of the viewers and their sensitivity.

The potential landscape impact assessment describes the likely nature and scale of changes to individual landscape elements and characteristics, and the consequential effect on landscape character. Existing trends of change in the landscape are taken into account. The potential landscape impact is assessed based on the landscape sensitivity and on the scale or magnitude of landscape effects.

The sensitivity of the landscape resource is a function of its land use, landscape patterns and scale, visual enclosure and distribution of visual receptors and the value placed on the landscape.

Landscape Sensitivity

The landscape sensitivity may be classified as High, Medium or Low.

High: Exhibits a very strong positive character with valued elements and characteristics that combine to give an experience of unity, richness and harmony, therefore particularly sensitive to change in general.

Medium: Exhibits positive character but with evidence of alteration to / degradation / erosion of elements and characteristics resulting in an area of mixed character, therefore potentially sensitive to change in general.

Low: Exhibits generally negative character with few valued elements or characteristics.

Magnitude/Quality of Change

The scale or magnitude of landscape effects or the quantity of change to be imposed on the landscape by the development may be classified as High, Medium, Low, Negligible or Neutral.

High: Total loss of or major alteration to the key elements or characteristics of the landscape, and / or introduction of elements considered totally uncharacteristic in the context of the receiving environment's landscape character.

Medium: Partial loss of or alteration to one or more key elements or features, and / or introduction of elements that may be prominent but may not necessarily be considered to be substantially uncharacteristic in the context of the receiving environment.

Low: Minor loss of or alteration to one or more key elements or characteristics, and / or introduction of elements that may not be uncharacteristic in the context.

Negligible: Very minor loss, alteration or introduction of elements of the landscape.

Neutral: Implies that the development is appropriate to the character of the landscape observed in the view, even if a substantial degree of change occurs (i.e. it complements the scale, landform and pattern of the landscape and maintains the existing qualities).

The significance of change is described as imperceptible, low, medium or high, and adverse, beneficial, and/or neutral.

The classification is informed by a thorough on-site inspection and description of the views and an understanding of the context and sensitivity of the viewpoint locations. As a general rule, the greater the distance of the viewpoint from the site, the smaller degree of impact it will be considered to have.

2.3. The Visual Envelope

A visual envelope is used to describe the extent of the developments visual affect on the surrounding environment, illustrated through the creation of a visual envelope map. The extent of visual intrusion the development has on the surrounding environment is dependent upon a variety of factors such as landform, existing vegetation and surrounding built form. It should be noted these maps are indicative only and it is not normally possible to assign a tolerance to them. (The approximate zone of visual influence is set out in Map 4 later in the report).

The potential visual impact assessment describes the changes in the character of the available views and the changes in the visual amenity of the visual receptors for a number of places / viewpoints selected to represent the receiving environment within the visual envelope and its users and inhabitants. For each viewpoint the field of view towards the site is described in terms of its key elements or characteristics.

The descriptions are illustrated with photographs taken from the viewpoints, (taken with 50mm lens to illustrate as closely as possible an 'as the eye sees' image – photographs may be stitched together to create panorama in some instances), to illustrate the proposed change to the view. The potential visual impact on each viewpoint is assessed based on the sensitivity of the visual receptors and on the scale or magnitude of visual effects.

The sensitivity of the visual receptors is a function of the location and context of the viewpoint, the expectations and occupation or activity of the receptor, and the importance of the view.

Viewpoint Sensitivity

The sensitivity of the visual receptors (Viewpoint sensitivity) may be classified as High, Medium or Low.

High: (e.g. users of outdoor recreation facilities or centres of activity focused on the landscape and occupiers of residential properties with views affected by the development).

Medium: (e.g. people travelling through or past the affected landscape in cars or on public transport, i.e. viewing but not focused on the landscape).

Low (e.g. people at their place of work or engaged in similar activities such as shopping, etc., whose attention will be focused on these activities).

Magnitude/Quality of Change

The scale or magnitude of visual effects or the degree / quantity of change to the field of view (towards the site) resulting from the development takes into account the extent of the view that would be occupied by the intrusion, e.g. full, partial, glimpse, etc. including the distance of the viewpoint from the development and its effect on the importance of the development in the field of view, the proportion of the development or particular features that would be visible, and whether the view of the development would be static, or a sequence or transient (as seen from a moving vehicle).

The magnitude of change to each view may be classified as High, Medium, Low or Negligible.

High: Total loss of or major alteration to the key elements or characteristics of the view, and / or introduction of elements considered totally uncharacteristic in the context of the view.

Medium: Partial loss of or alteration to one or more key elements or features, and / or introduction of elements that may be prominent but may not necessarily be considered to be substantially uncharacteristic in the context of the view.

Low: Minor loss of or alteration to one or more key elements or characteristics, and / or introduction of elements that may not be uncharacteristic in the context.

Negligible: Very minor loss, alteration or introduction of elements of the view).

2.4. The Capacity of the Receiving Environment to Accommodate Change

The capacity of the receiving environment to accommodate change is largely determined by existing topography and vegetation and their potential to screen the proposed development from sensitive viewers within the visual envelope. The type of developments occurring in the area also contributes to the capacity of the local urban landscape (townscape) to absorb new developments of the same or similar kind, and must also be considered.

A statement is made as to the significance of the urban landscape (townscape) impact that would result from the development, based on the measurement of the magnitude of the urban landscape (townscape) effects against the sensitivity of the urban landscape (townscape)

resource. The predicted impact is classified as high, medium or low as well as beneficial, neutral or adverse. This is not an absolute exercise; it is a professional judgement informed by the assessment methodology described.

2.5. Assessment of Viewpoints

The assessment of visual impact involves identifying viewpoints within the visual envelope that are representative within the receiving environment. These viewpoints were selected based on physical inspection of the view. The selected viewpoints are surveyed to ascertain the condition of the existing view (characteristics, features, positive and negative qualities, etc.), and the associated sensitivity of the viewpoint (based on the extent and location type – residential, public road, amenity, etc.). With the aid of representative images the degree of change to be experienced at that location is assessed.

Each viewpoint is categorised in tabular form summarising the significance of the predicted impact on the visual amenity of the view, as well as a classification of the impact as beneficial, neutral or adverse. The assessment of the significance of impact on each view is based on the measurement of the magnitude of change to the view against the sensitivity of the viewpoint.

The criteria for grading impact significance are summarised as follows:

Where a viewpoint of High sensitivity is subject to a High or Medium magnitude of change, then the impact is classified as of **High significance**, and

Where a viewpoint of Medium sensitivity is subject to a High magnitude of change, then the impact is classified as of High significance.

Where a viewpoint of Medium sensitivity is subject to a Medium or Low magnitude of change, then the impact is classified as of **Medium significance**, and

Where a viewpoint of High sensitivity is subject to a Low magnitude of change, then the impact is classified as of Medium significance.

Where a viewpoint of Low sensitivity is subject to a High, Medium, Low or Negligible magnitude of change, then the impact is classified as of **Low significance**.

Where a viewpoint of Medium or High sensitivity is subject to a negligible magnitude of change, then the impact is classified as of Low significance.

The assessment of visual change and visual impact associated to the proposed development from the selected viewpoints is carried out taking into consideration the proposed development on its own merit but also bearing in mind existing developments of similar scale.

3.0. Description of the Proposed Development

3.1 Uses

The former Mitsui Denman (Ireland) Limited facility, at Wallingstown and Inchera, Little Island, previously encompassed approximately 40 hectares of land of which approximately 24 hectares were utilised for waste management activities, with the remaining lands utilized for manufacturing, production, office facilities, landscaping and ancillary infrastructure. The waste management area comprises IPPC licensed waste lagoons which are under the ownership of Thornbush Holdings ('the Thornbush Site'). The proposed development of a CD&E Waste Recovery Facility is to be located on a restored area (ca. 2.2 hectares) at the north western corner of the Thornbush Site ('the Application Site'). It is intended that the proposed facility will generate over its lifetime sufficient material for the proper capping and restoration of the Thornbush Site which is required under the terms of its IPPC licence and existing planning requirements.

3.3 Form

The design and site layout of the CD&E Waste Recovery Facility is based on processing received CD&E materials into a fill material type 1C (as specified in Specification for Highway Works). By its nature it would be a temporary development which would enable the capping of the Thornbush Site as required by the existing IPPC licence and planning permission (Planning Ref: 1466/73), and its design reflects this timescale and longer term plans for the wider area. The facility would contain the following plant, equipment and ancillary areas:

- 1 no. Wheel loader (incoming material),
- 1 no. Wheel excavator (15t),
- 1no. Tracked excavator (20t),
- 1no. Wheel loader (recycled material),
- Primary sorting unit with vibrating twin deck grizzly
- Jaw crushing unit with single/double toggle jaw plates and magnetic separator
- Screening unit for primary screening of the crushed material with vibrating mesh deck;
- Weighbridge,
- Wheelwash,
- Truck Parking Area,
- Material Inspection Area,
- Waste Quarantine Area,
- Interceptor Compound
- Processing and stock piling Area,
- New entrance,
- Access road to lagoon area
- Areas of hardstandings, portacabins and parking.

3.4 Design and Materials

Accommodation, crushers, screeners and related structures, plant and equipment would be located within the site and would rise to a maximum height of around 4m. The remainder of development would be built of robust and utilitarian materials and surfaces including concrete, tarmacadam and temporary hardstandings. The largest features within the site would be storage heaps of received and processed materials which could rise to 5-6m in height.

The existing elongated bund that encompasses the wider Thornbush Site will provide an effective screen to the site in views from the waters of the harbour and from more distant shoreline locations to the south. The effectiveness of this bund will increase as existing planting matures.

The Application would be accessed from the north where a new entrance would be created through existing boundary vegetation providing a link to the local distributor road that serves the surrounding industrial area. It is proposed to provide additional internal bunds which would screen views of the working site from the road as one passes the site, and would screen the Application Site from the proposed adjacent Howard Holdings development. This would also augment the screening provided by the existing deciduous trees along the northern boundary

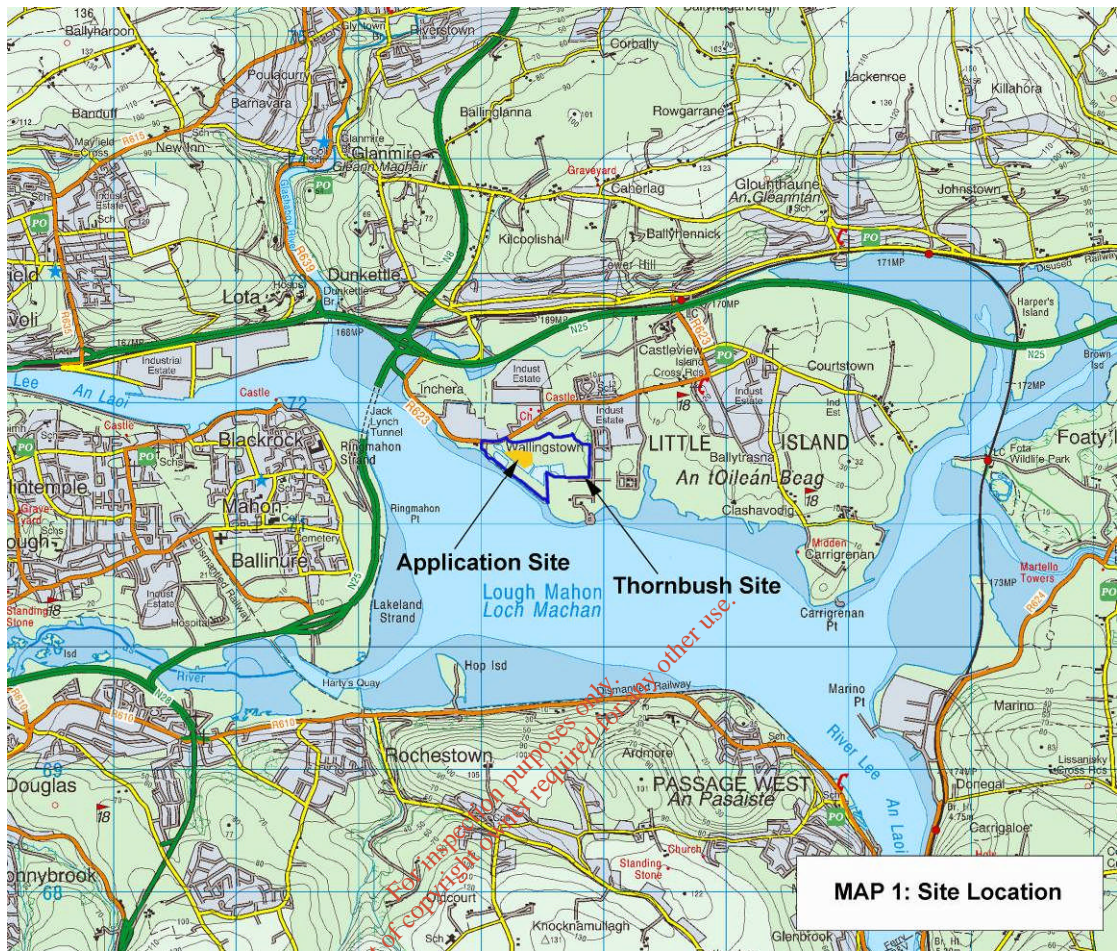
3.5 Potential Impacts of the Proposed Development

The above description identifies a number of aspects of the proposed development that would impact on the landscape character and contribute to its visual impact:

- The reception and storage heaps of waste materials.
- The utilitarian character of the proposed facility.
- The negative perceptions of waste management facilities.
- Potential shoreline and southerly visual impacts to the wider environs of Lough Mahon.

4.0. Description of the Receiving Environment

4.1. Plans and policies



The Application Site is located approximately 4km east of Cork City on the Northern shores of Lough Mahon / Cork Harbour. Much of the landscape between the site and Cork City particularly along the northern coastline of the harbour is characterised by industrial, commercial, dockland and port activity. Little Island itself, in which the Application Site is located, is primarily an industrial / enterprise location although there is a long established residential population on the island. Cork County Development Plan sets out an overall strategy which

“...aims to re-affirm its (Little Island) strategic industrial location and promote its potential for strategic distribution and logistics development. Limited expansion of its residential role is envisaged while improving the amenities of existing residential areas.....”

The Application Site is located within an unrestored derelict industrial wasteland which can be classed as a ‘brownfield site’.

Restoration of the brownfield site supports the objectives of the County Development Plan which states:

"It is an objective actively to seek and promote a significant proportion of development within the lifetime of this plan to occur on Brownfield Lands" (Ref: CDP policy ZON 2-4)

The proposed CD&E Facility would facilitate the rehabilitation of much of the brownfield site providing inert fill and waste material for restoration of the Thornbush Site waste lagoons. The County Development Plan distinguishes between Industry, which it describes as:

..... including manufacturing, repairs, warehousing, distribution, open-storage, waste materials treatment and recovery, and transport operating centres. The development of inappropriate uses, such as office based industry and retailing will not, normally be encouraged. (Ref: CDP policy ZON 3-13).

and Enterprise:

.....employment uses that are inappropriate to town centres and require environmental standards higher than those in industrial areas, such as office based industry and business parks (Ref CDP policy ZON 3-14).

Apart from excavation and filling of some waste lagoons, the Thornbush Site itself has not had previous development, however the former Mitsui Denman factory to the north was industrial in nature and there are large manufacturing facilities in the environs of the site. The large area covered by this zoning in the western part of Little Island has allowed both of the uses to coexist in relative proximity and no more specific industry or enterprise objectives are identified. The purpose of the CD&E Facility is to support the reclamation of the Thornbush Site waste lagoons and its restoration to industrial and enterprise use in accordance with the above objectives. The site and immediate context are shown on Map 2 and described below.

4.2. Description of environment

4.2.1 Micro Landscape

The Development Site

The Application Site is a wasteland lying in the north west corner of the Thornbush Site, adjacent to the R623 Little Island Road. The character of the area is a function of the previous industrial processes. The Application Site consists of a former waste impoundment lagoon. There is no inherent landscape value or quality in the site with the exception of the existing trees along the northern boundary which provide an effective screen. The Application Site is

visually contained to the south by a large bund bordering the Thornbush Site which restricts views of the waters of Lough Mahon and the distant shoreline to the south.



View east across Application Site



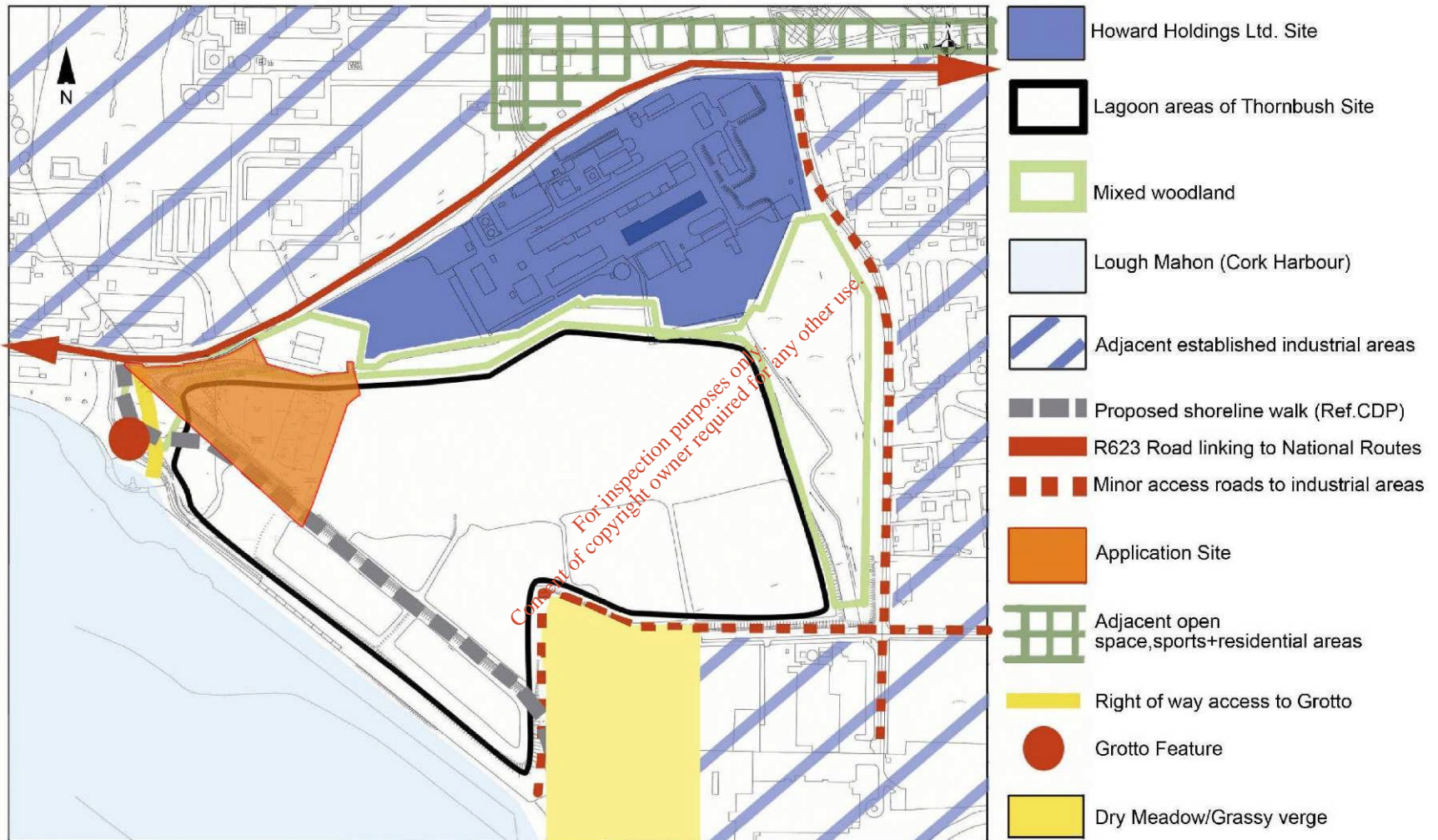
**View south across Application Site
showing raised berm**



**Lagoon and tree screen to west of
Application Site**

Consent of Copyright owner required for any other use.
For inspection purposes only.

MAP 2: The Site and Immediate Context



4.2.2 Macro Landscape

Thornbush Site Context

The Thornbush Site occupies an extensive area to the east and south of the proposed CD&E Facility. The purpose of the CD&E Facility is to support reclamation and restoration of much of that site. The Thornbush Site can be described under the following areas:

Lagoon Area

This area lies south and south-east of the Application Site. It occupies most of the Thornbush Site and consists of waste disposal lagoons associated with the processing of manganese to produce Electrolytic Manganese Dioxide for the production of dry cell batteries.

Much of the area is barren with a number of open water lagoons enclosed by a high outer embankment wall located on the southern boundary of the site. Although there are no structures, the character of this area is completely a function of the previous industrial process. The waste lagoons must be capped to fulfil existing planning and IPPC requirements.

It is proposed in the County Development Plan to develop a shoreline walk through this area. The proposed walkway is illustrated on Zoning Map 18 of the County Development Plan 2003 with the objective U-04:

“Provide and maintain pedestrian walkway along shoreline to connect with open space”

However, the map used to draft this walkway predates the sale of lands connecting the waterfront to the former Thornbush Site. The lands divided by the walkway were purchased by Mitsui Denman in 2000 from the IDA and developed as part of the waste management infrastructure now governed by an IPPC licence from the EPA. An existing right of way provides access from the public road to a grotto feature within the site of the IPC licence but outside the outer embankment and security fence surrounding the waste cells. This right of way remains unchanged.

As the proposed alignment of this walk is currently well within the lagoon area, the long term redevelopment of the site would require its more appropriate relocation to the shore/ coastal edge as part of a redesigned waterfront. The grotto feature is located on the shore and is due for protection in the next review of the Record of Protected Structures for Cork County Council. Any proposed future development to the waterfront would address and integrate these amenities into a wider plan for the site.



Internal views of settlement lagoons



View at the southern boundary berm

Grotto feature on shoreline

Mixed Woodland

The Thornbush Site contains areas of woodlands located to the east of this proposed development.

The woods contain mature Ash (*Fraxinus excelsior*), Sycamore (*Acer pseudoplatanus*), Oak (*Quercus robur*) and Holly (*Ilex aquifolium*) as well as a wide range of understorey and shrubby species. There are also planted conifers and Poplars along this southern boundary.



View north east at woodland at the edge of the Lagoon area



Woodland to eastern boundary of Mitsui Denman site

Surrounding Areas

The immediate environs to the north and east of the former Thornbush Site are bounded by extensive areas of industrial development including industrial parks developed by IDA Ireland and large industrial complexes of major national and international corporations. Many of these areas are landscaped and modern complexes contrasting with vacant appearance of the Application Site and the adjacent semi-derelict Thornbush Site.



Nearby factory on Middle Road

Wider Context

Map 3 illustrates the setting of the proposed development in the context of Little Island and Cork Harbour. Whilst Little Island is recognised as a strategic industrial rather than residential location there is a requirement in the County Development Plan to ensure an acceptable environmental quality. It is recognised that the island occupies a prominent position in the harbour and development must consider ecological issues in relation to both the wider areas designated for nature conservation. The harbour provides the distinctive setting for Cork City and its environs and has been classified in the County Development Plan as the City Estuary Harbour and Island Complex landscape character area. The landscape character assessment process in the County Development Plan does not provide detailed guidance as to the sensitivity of these areas however it is an objective to continue the process of landscape character assessment in line with the Draft Guidelines issued by the Department of the Environment and Local Government. This assessment follows that process in assessing the proposed CD&E development particularly in the context of its contribution to the redevelopment of the adjacent former Mitsui Denman site.

In doing so both the landscape and visual amenity of residential and scenic areas in the harbour environs need to be considered in terms of the potential development within the visual envelope of the harbour. The relevant scenic areas, routes, and residential areas are shown in Map 3 below. Those lying around the southern and western shores of Lough Mahon, from Blackrock to Passage West, would be most sensitive to views of the site on Little Island. These views are, however of a working harbour in a rapidly developing city where the coastal edge is becoming increasingly urbanised. The County Development Plan describes Cork Harbour as

“....a thriving mixed coastal zone in a distinctive landscape setting as well as being the focus for all major industrial development in the area.”

It is the balance between the natural maritime setting, the increasingly urban waterfront and the bustle of an industrial port and city which create the distinct identity of Lough Mahon and Cork Harbour.

The photographs below illustrate the wider receiving environment of Lough Mahon, including the existing predominantly industrial / port views looking north from Blackrock, quality new urban residential development at Harty’s Quay and scenic areas around Rochestown.



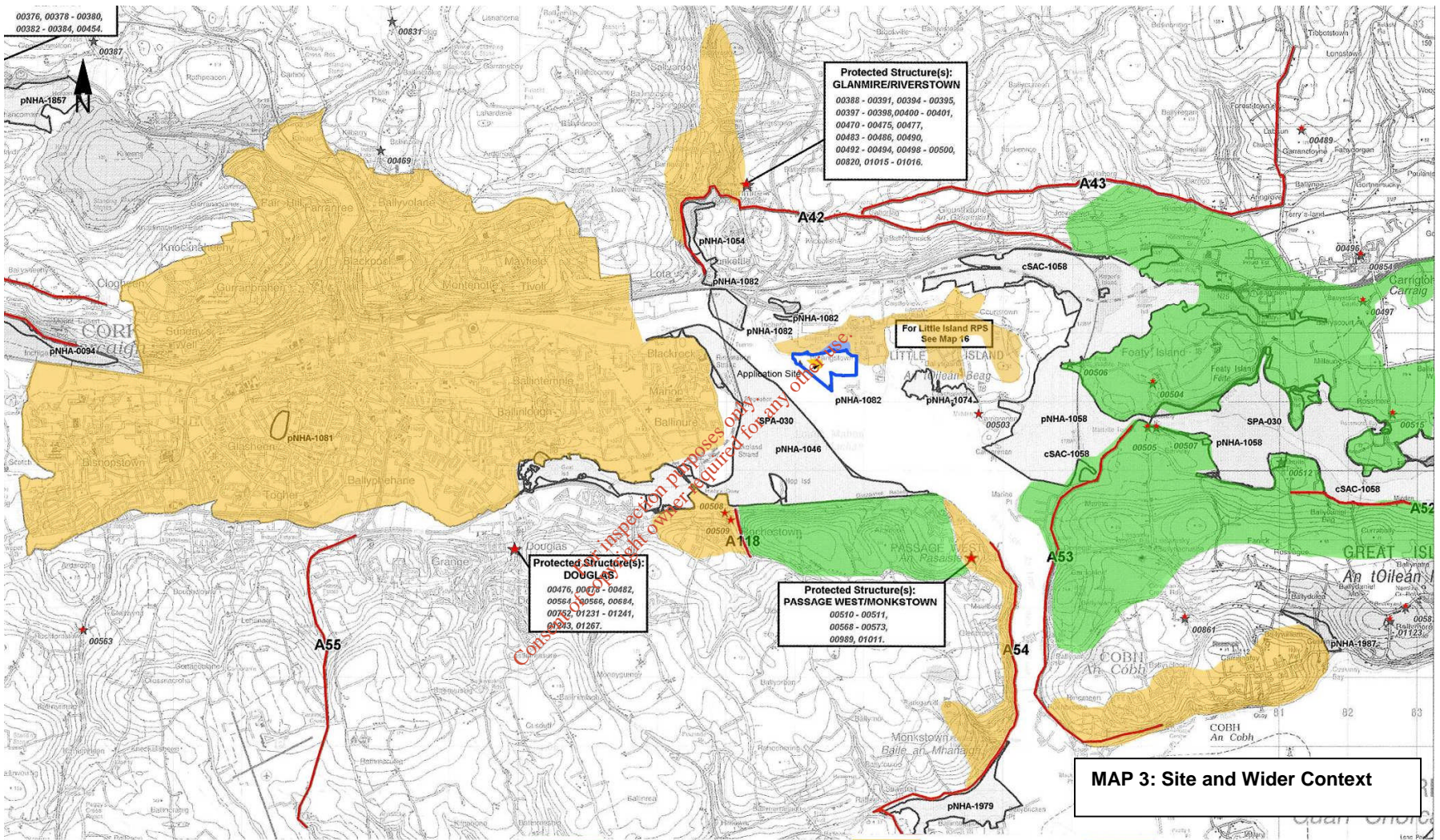
View of north docks between Tivoli and Dunkettle from Blackrock



Jacobs Island



**Protected scenic landscape –
Rochestown to south of Lough Mahon**



**Protected Structure(s):
GLANMIRE/RIVERSTOWN**
00388 - 00391, 00394 - 00395,
00397 - 00398, 00400 - 00401,
00470 - 00475, 00477,
00483 - 00486, 00490,
00492 - 00494, 00498 - 00500,
00820, 01015 - 01016.

For Little Island RPS
See Map 16

**Protected Structure(s):
DOUGLAS**
00476, 00478 - 00482,
00564 - 00566, 00684,
00752, 01231 - 01241,
01243, 01267.

**Protected Structure(s):
PASSAGE WEST/MONKSTOWN**
00510 - 00511,
00568 - 00573,
00989, 01011.

MAP 3: Site and Wider Context

Thornbush Site
 / \ Scenic Route
 Scenic Landscape
 Urban Area
 Howard Holdings Site

4.2.3 Summary

The above descriptions identify a number of characteristics and values of the receiving environment that might be affected by the proposed development. These are categorised according to their cultural, social or ecological conservation value, those characteristics of the receiving environment to be protected from, complemented or enhanced by development, and their enhancement value, where inevitable/economic change or degraded features provide the scope to restore or the opportunity to alter or create a new characteristic.

Conservation

- Lough Mahon / Cork Harbour landscape and visual amenity – social.
- Mature woodland nearby – ecological and social (amenity).
- Maritime ecology of nearby pNHA , SPA and wider Harbour area – ecological.

Enhancement

- Zoning for Industry and Enterprise.
- Semi-derelict nature of the site.
- Waterfront setting and potential – social.
- Immediate existing Industrial and Enterprise context.
- Wider Port, Commercial and working Harbour context.
- IPPC licence and planning requirement for capping of lagoon area implying the temporary need for tipping and related reclamation activity.

The above categorisation illustrates the temporary need for a development of the nature proposed to facilitate the reclamation of the adjacent derelict industrial site and the long term opportunity and potential of the site in terms of more valuable development. Clearly the enhancement values associated with the site and its context require a use of this nature in this vicinity. The conservation values indicate those aspects of the receiving environment which are sensitive and should be complemented and preserved by the proposed new development.

5.0. The Capacity of the Receiving Environment to Accommodate Change

Landscape and visual impact assessment is essentially concerned with two things:

- (i) the changes as a result of a development that affect the fabric, character, values and quality of the landscape as identified above and
- (ii) visual changes that affect the views (and viewers) within a landscape

Landscape and visual impacts do not necessarily coincide and more importantly, their significance may not be related.

5.1. Landscape Impact

The descriptions above outlined the conservation and enhancement values of the receiving environment character. The impact of the proposed development on these would be as follows:

Conservation

- *Lough Mahon / Cork Harbour landscape and visual amenity*

The uses proposed are not unusual in an industrial port area although they would not be positive if highly intrusive visually.

- *Mature woodland towards the eastern boundary of the adjacent waste lagoons – ecological and social (amenity)*

This woodland would not be affected by the proposed development at the Application Site and in the long term will be retained as an important natural and established feature creating landscape capacity in the area and providing amenity and habitat.

- *Maritime ecology of nearby pNHA and SPA and wider Harbour area – ecological.*

Maritime ecology would not be directly affected by the proposed CD & E development.

Enhancement

- *Zoning for Industry and Enterprise.*

The proposed development would support long term development in accordance land use policy for the area.

- *Semi-derelict nature of the site.*

The productive use of the site for waste recycling facilitating the renewal of adjacent derelict lands, is good practice and in keeping with development plan policies.

- *Waterfront setting and potential*

The proposed CD&E Facility would be located close to the waterfront and potentially visually intrusive, however the facility would support the reclamation of adjacent lands for 'beneficial afteruse'.

- *Immediate existing Industrial and Enterprise context.*

The proposed development could conflict with the surrounding industrial and enterprise development, however this would be a short to medium term impact facilitating long-term renewal and redevelopment of a much wider area.

- *Wider Port, Commercial and working Harbour context.*

The proposed development would be one of the more utilitarian features often found in working harbours.

- *IPPC licence and planning requirement for capping of lagoon area implying the temporary need for tipping and related reclamation activity.*
- *Potential further development across the restored Thornbush Site..*

The temporary CD&E Facility will ultimately allow a much more significant development across the Thornbush Site, potentially establishing a quality, landmark presence on the waterfront in Cork Harbour.

5.2. Visual Impact

Zone of visual influence is the term used to describe the area and places from which the site and proposed development would be seen. It is generally taken as those areas where a proposed development is visible at normal eye level. Desktop analysis is usually informed by site survey to identify localised visual barriers. In the case of large buildings visibility may "leapfrog" nearby receptors restricted by local barriers to reappear further away where distance and elevation recreate views of a proposed development. In this assessment the zone of visual influence is defined by the nearest visual barriers to receptors at eye-level.

Alongside the issues relating to the characteristics and values described above key issues in relation to the zone of visual influence are the nature of the visual receptors within the zone i.e. the nature of the viewers and their sensitivity. These will include:

- Views representative of the surrounding roads and industrial areas.
- The waterfront and shoreline on Little Island.
- Key views from the southern and western residential and scenic areas around Lough Mahon.

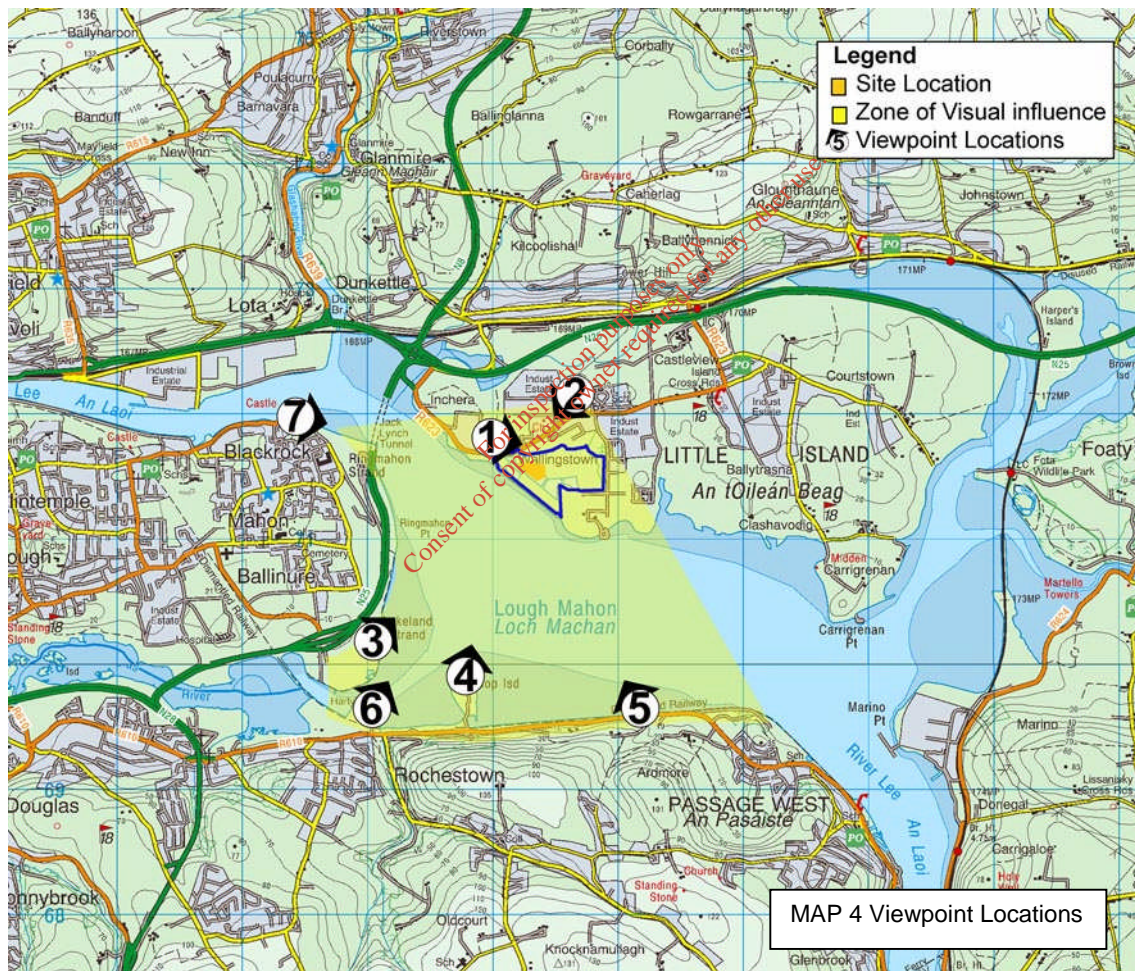
Viewpoints selected for assessment should be representative of these receptors.

Visual impact is concerned with the direct impacts on views within the landscape, and the effects of those changes on viewers. The assessment of visual impact involves identifying key and representative viewpoints within the sites immediate zone of visual impact and significant viewpoints beyond this, measuring the proposed degree of change to be experienced at each point and assessing the viewpoint's sensitivity.

This methodology results in a classification of the predicted impact on each viewpoint. The number and spread of viewpoints is designed to represent the entire zone of visual influence. The collective result of the exercise should therefore result in an accurate indication of the visual impact of the proposed development on the receiving environment.

This can then be assessed along with the perceived capacity of the area to accommodate change, to arrive at a conclusion as to the acceptability, in visual impact terms, of the development proposal or mitigation required.

The visual impact survey was carried out by a qualified landscape architect on an overcast day in February 2008. Seven viewpoints within the defined zone of visual influence were assessed.



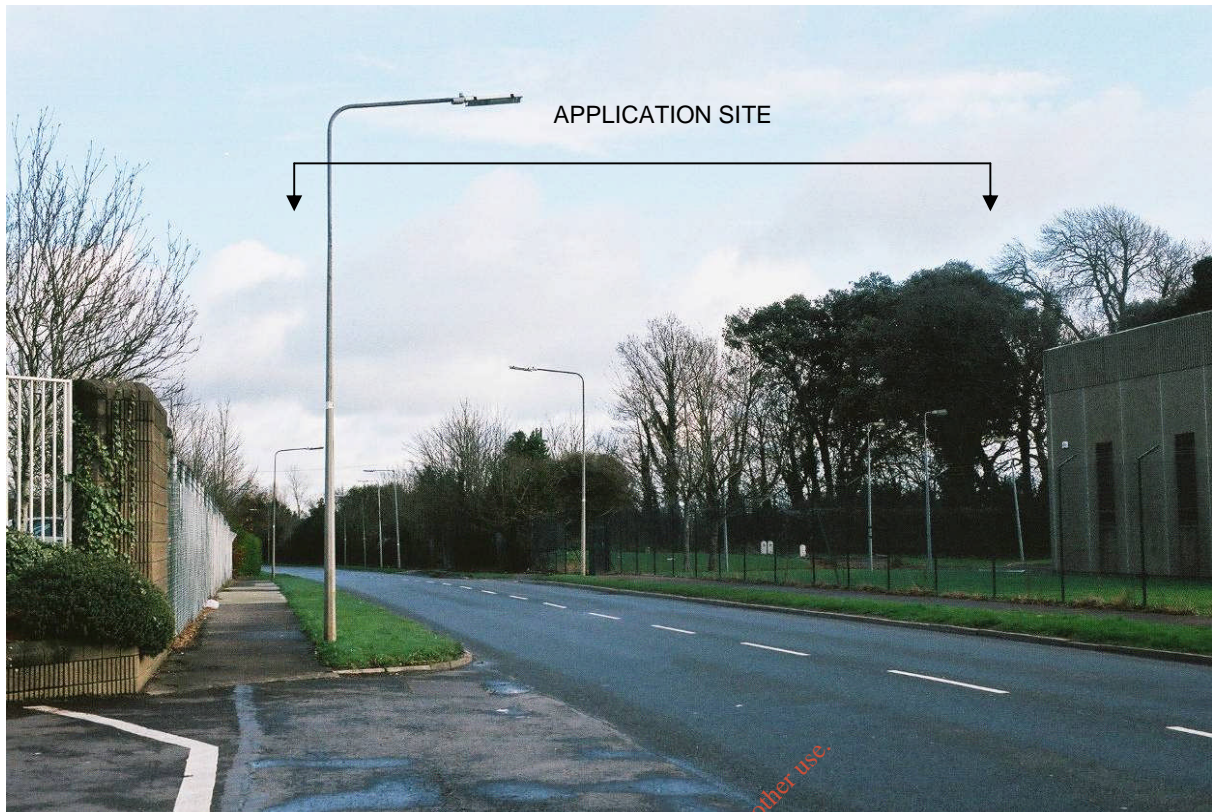
The selected viewpoints are as follows:

No	Location	Direction of View	Viewpoint Type	Distance to Site	OSI Mapping Coordin

					ates
1	Middle Road	South-East	Industrial	0.20km	W174,1 N071,75
2	Middle Road	South-West	Industrial	0.10km	174,5 N071,85
3	Jacobs Island	North-East	Maritime/Distant Landscape	2.2km	W173,1 N070,4
4	Hop Island	North-East	Maritime/Distant Landscape	2.2km	W173,8 N069,9
5	Car Park near Passage West	North-West	Maritime/Distant Landscape	2.4km	W175,3 N069,6
6	Hartys Quay	North-East	Maritime/Distant Landscape	2.5km	W173,05 N069,5
7	Blackrock Castle	South-East	Maritime/Distant Landscape	1.6km	W172,4 N071,95

For inspection purposes only.
Consent of copyright owner required for any other use.

Viewpoint 1 Middle Road West



Description of View

The selected viewpoint is located approximately 0.2 km to the North-West of the Application Site on the main road of the industrial estate.

Existing View

The location facilitates views along the industrial estate distributor road where development is evident on either side including the ESB substation to the right. The view presents a neat and organised image of the industrial zone in which the considerable mature vegetation in the middle distance heavily screens views of the proposed development site. The existing trees are located along the northern boundary and to the west of the site.

Proposed View and Mitigation

While the new gateway to the proposed development will be evident in the view, visual impact will remain low key due to the significant screening provided by existing site boundary bunding and associated screen vegetation which will be retained as part of the development and the large trees to the west of the site that will not be affected by the development.

VIA Result

- *The viewpoint sensitivity is considered low, given the industrial nature of the location where people pass to and from local business premises.*
- *The degree of change at this viewpoint would be low in the short to medium term and low in the long term given the extent of existing screen vegetation in the view.*
- *The significance of the visual impact will be low neutral in the short to medium term and low neutral in the long term given the manner in which the proposed development will be integrated in the setting by existing site boundary bunding and screen vegetation.*

During the construction phase the degree of change would be low adverse, the significance of this would be low adverse.

*For inspection purposes only.
Consent of copyright owner required for any other use.*

Viewpoint 2 Middle Road East



Description of View

The selected viewpoint is located approximately 0.1km to the North-East of the Application Site on the local road network.

Existing View

This location, at the entrance to an adjacent industrial site on the other side of the spine road, facilitates a view of the northern boundary of the Application Site which is defined by mature trees and hedges. This imparts a substantially rural character to the location in this close-up view towards the site.

Proposed View and Mitigation

While a short section of the boundary will be removed to accommodate an entrance to the site, the proposed development will be heavily screened by the existing boundary vegetation, the majority of which will be retained post completion. While some elements of the proposed infrastructure may be partially visible through the trees, this will be largely confined to the winter season when leaves are absent from the trees. The boundary screen could be supplemented by the planting of native coniferous species such as Scot's pine adjacent to the existing screen.

VIA Result

The viewpoint sensitivity is considered low, given the industrial nature of the location where people pass to and from local business premises.

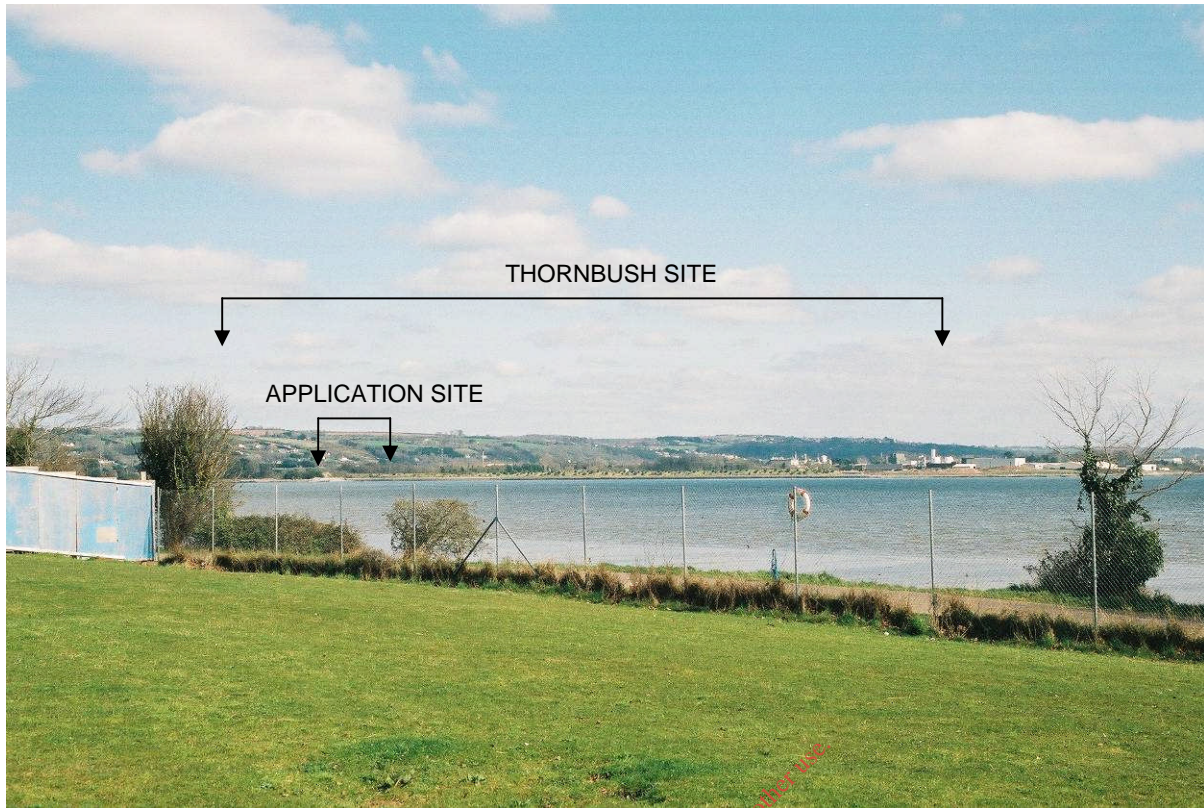
The degree of change at this viewpoint would be low in the short to medium term and low in the long term given the extent of existing screen vegetation in the view.

The significance of the visual impact will be low neutral in the short to medium term and low neutral in the long term given the manner in which the proposed development will be substantially integrated in the setting by existing site boundary screen vegetation.

During the construction phase the degree of change would be low adverse, the significance of this would be low adverse.

*For inspection purposes only.
Consent of copyright owner required for any other use.*

Viewpoint 3 Jacobs Island



Description of View

The selected viewpoint is located approximately 2.2km from the Application Site at the eastern extremity of Jacob's Island where an existing housing development interfaces with the inner harbour shoreline.

Existing View

This location facilitates panoramic views across the harbour towards Little Island and the distant ridge that generally characterises the nature of the landform to the north of Cork City. The over-riding character is that of a rural maritime/landscape although some distant housing areas are visible. While one industrial site is revealed by the emission of smoke on the right hand side of the view, the industrial character of Little Island is substantially masked through a combination of screening which is provided by vegetation and landform and the diminishing effect of distance. The Application Site is located close to the opposite shoreline but is substantially screened by a long embankment on the distant shoreline and generally remains insignificant in this long distance view.

Proposed View and Mitigation

It is anticipated that the proposed development will constitute a minor change in the view. Site apparatus and operations will be significantly screened by the existing bund situated along the southern boundary of the Thornbush Site. In addition distance will have a significantly diminishing effect from this location.

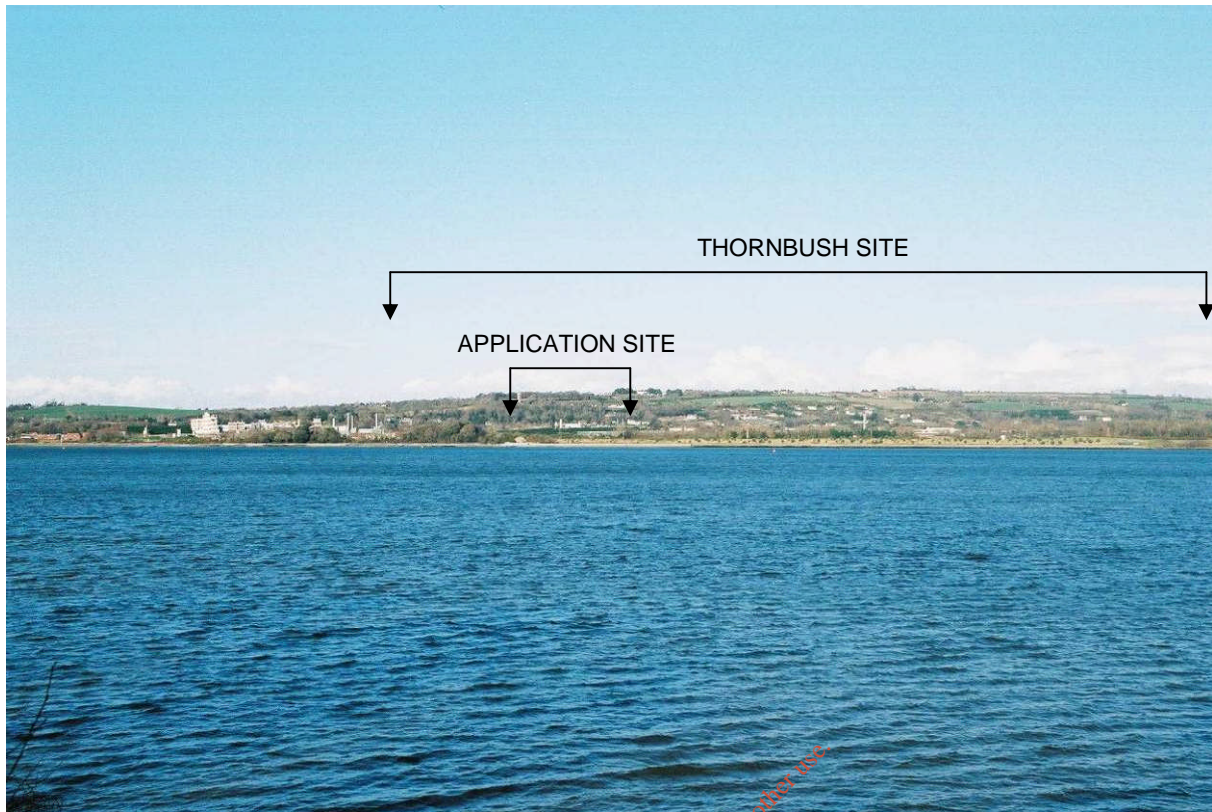
VIA Result

- *The viewpoint sensitivity is considered high, given the residential nature of the location and the adjacent shoreline walkway facility where views are focused on the harbour and the surrounding landscape.*
- *The degree of change at this viewpoint would be low in the short to medium term and low in the long term given the diminishing effect of distance in the view.*
- *The significance of the visual impact will be low neutral in the short to medium term and low neutral in the long term given the diminishing effect of distance and the mitigating effect of existing bunding to the south of the Thornbush Site.*

During the construction phase the degree of change would be low adverse, the significance of this would be low adverse.

*For inspection purposes only.
Consent of copyright owner required for any other use.*

Viewpoint 4 Hop Island



Description of View

The selected viewpoint is located approximately 2.2km from the Application Site on the opposite shoreline of the harbour at an equestrian centre.

Existing View

This location facilitates panoramic views across the harbour towards Little Island and the distant ridge where housing areas associated with Glounthaune and industrial premises associated with Little Island are visible. While these elements indicate the proximity of the city and its associated suburbs, the extent of tree cover in the view generally assists their integration in the setting. The view is thus a pleasant harbour panorama. The Application Site remains low key in the view, partially screened as it is by the long earthen embankment along the shoreline of the Thornbush Site.

Proposed View and Mitigation

It is anticipated that the proposed development will constitute a minor change in the view. Site apparatus and operations will be significantly screened by the existing bund situated along the southern boundary of the Thornbush Site. In addition distance will have a significantly diminishing effect from this location.

VIA Result

- *The viewpoint sensitivity is considered medium, given the low key status of the car park where access to the shoreline facilitates views across the harbour.*
- *The degree of change at this viewpoint would be low in the short to medium term and low in the long term given the diminishing effect of distance in the view.*
- *The significance of the visual impact will be low neutral in the short to medium term and low neutral in the long term given the diminishing effect of distance and the mitigating effect of existing bunding to the south of the Thornbush site.*

During the construction phase the degree of change would be low adverse, the significance of this would be low adverse.

*For inspection purposes only.
Consent of copyright owner required for any other use.*



Description of View

The selected viewpoint is located approximately 2.4km from the Application Site on the opposite shoreline of the harbour at a public car park near Passage West

Existing View

This location facilitates panoramic views across the harbour towards Little Island and the distant ridge where housing areas associated with Glounthaune and industrial premises associated with Little Island are visible. While these elements indicate the proximity of the city and its associated suburbs, the extent of tree cover in the view generally assists their integration in the setting. The view is thus a pleasant harbour panorama. The Application Site remains low key in the view, partially screened as it is by the long earthen embankment along the shoreline.

Proposed View and Mitigation

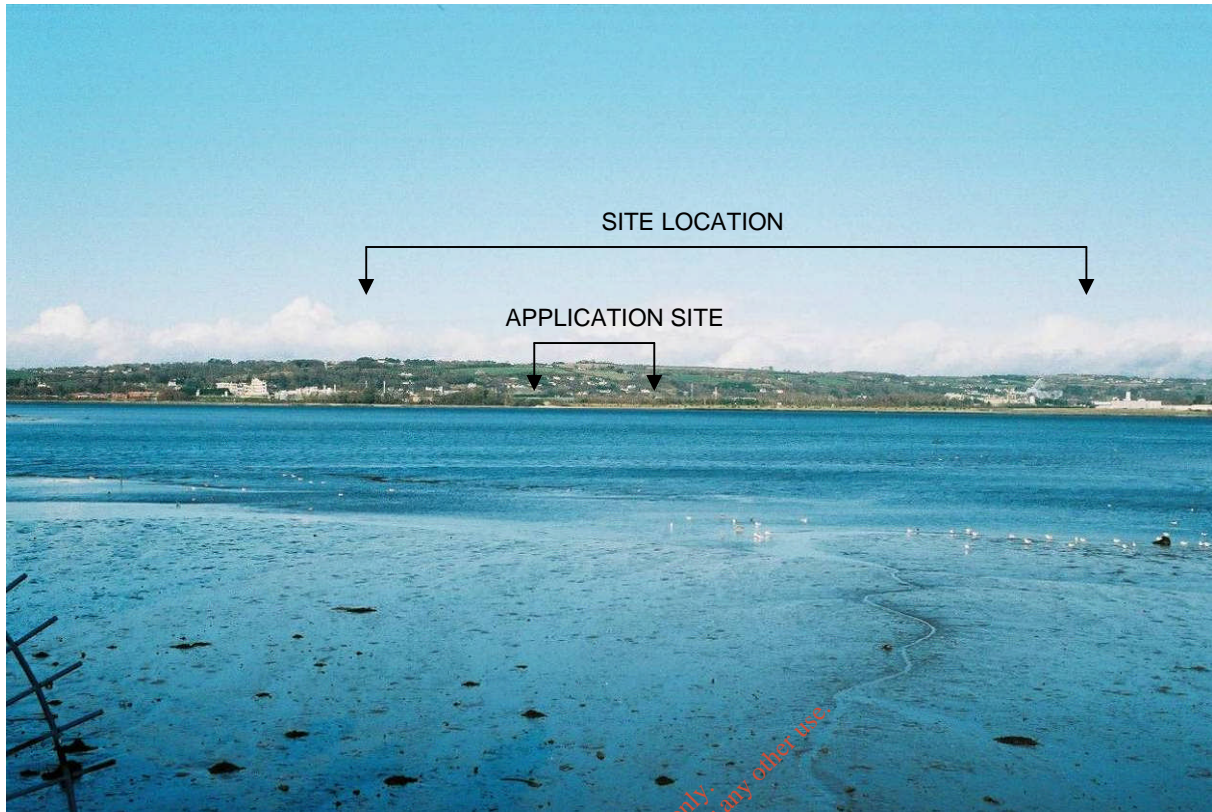
It is anticipated that the proposed development will constitute a minor change in the view. Site apparatus and operations will be significantly screened by the existing bund situated along the southern boundary of the Thornbush Site. In addition distance will have a significantly diminishing effect from this location.

VIA Result

- *The viewpoint sensitivity is considered medium, given the low key status of the car park where access to the shoreline facilitates views across the harbour.*
- *The degree of change at this viewpoint would be low in the short to medium term and low in the long term given the diminishing effect of distance in the view.*
- *The significance of the visual impact will be low neutral in the short to medium term and low neutral in the long term given the diminishing effect of distance and the mitigating effect of existing bunding to the south of the Thornbush Site.*

During the construction phase the degree of change would be low adverse, the significance of this would be low adverse.

*For inspection purposes only.
Consent of copyright owner required for any other use.*



Description of View

The selected viewpoint is located approximately 2.5km from the Application Site on the opposite shoreline of the harbour at a residential development complex.

Existing View

This location facilitates panoramic views across the harbour towards Little Island and the distant ridge where housing areas associated with Glounthaune and industrial premises associated with Little Island are visible. While these elements indicate the proximity of the city and its associated suburbs, the extent of tree cover in the view generally assists their integration in the setting. The view is thus a pleasant harbour panorama. The proposed development site remains low key in the view, partially screened as it is by the long earthen embankment along the shoreline.

Proposed View and Mitigation

It is anticipated that the proposed development will constitute a minor change in the view. Site apparatus and operations will be significantly screened by the existing bund situated along the southern boundary of the site. In addition distance will have a significantly diminishing effect from this location.

VIA Result

- *The viewpoint sensitivity is considered high, given the residential status of the location.*
- *The degree of change at this viewpoint would be low in the short to medium term and low in the long term given the diminishing effect of distance in the view.*
- *The significance of the visual impact will be medium neutral in the short to medium term and medium neutral in the long term given the diminishing effect of distance and the mitigating effect of existing bunding to the south of the Thornbush Site.*

During the construction phase the degree of change would be low adverse, the significance of this would be low adverse.

*For inspection purposes only.
Consent of copyright owner required for any other use.*



Description of View

The selected viewpoint is located approximately 1.6km from the Application Site on the opposite shoreline at Blackrock Castle.

Existing View

This location, at the carpark adjacent to Blackrock Castle facilitates views across the harbour towards the Application Site which is screened by existing vegetation close to the opposite shoreline. While the industrial character of Little Island is revealed by the large scale industrial buildings in the middle and far distance, existing vegetation has a softening effect and the view thus remains generally pleasant.

Proposed View and Mitigation

The proposed development will not incur any visual impact from this location due to the level of screening provided by the tree cover along the western boundary of the site and further west of the site.

VIA Result

- *The viewpoint sensitivity is considered high, given the recreational/destination status of the location where visitors to the castle arrive and where views are focused on the waters of the inner harbour and its associated landscape.*
- *The degree of change at this viewpoint would be negligible in the short to medium term and negligible in the long term given the extent of screening provided by existing tree cover in the view..*
- *The significance of the visual impact will be low neutral in the short to medium term and low neutral in the long term given the mitigating effect of existing screen vegetation in the view*

During the construction phase the degree of change would be negligible, the significance of this would be low neutral.

*For inspection purposes only.
Consent of copyright owner required for any other use.*

Visual Impact Conclusion

View No.	Location	Distance from Site	Degree of Change	Viewpoint Sensitivity	Classification of Impact	Predicted Impact short term	Predicted Impact long term
1	Middle Road	0.20km	Low	Low	Neutral	Low Neutral	Low Neutral
2	Middle Road	0.30km	Low	Low	Neutral	Low Neutral	Low Neutral
3	Jacobs Island	2km	Low	High	Neutral	Low Neutral	Low Neutral
4	Hop Island	17.6km	Low	Medium	Neutral	Low Neutral	Low Neutral
5	Car Park near Passage West	20.8km	Low	Medium	Neutral	Low Neutral	Low Neutral
6	Hartys Quay	2.3km	Low	High	Neutral	Low Neutral	Low Neutral
7	Blackrock Castle	15.5km	Negligible	High	Neutral	Low Neutral	Low Neutral

6.0. Landscape and Visual Impact Assessment – Conclusions

The analysis is summarized below in terms of the landscape/townscape character and the impact on specific and representative viewpoints of the development.

6.1. Landscape Character

The proposed development represents a temporary development that is potentially visually intrusive with negative perceptions. However it is an essential requirement both to implement the restoration requirement of the Thornbush Site waste lagoons and the long term redevelopment of that site to a beneficial afteruse, exploiting and enhancing its waterfront location.

The Application Site benefits from the presence of substantial existing screen vegetation along its northern and western boundaries and the presence of bunding to the south. In addition, views of the development will be heavily restricted from the inner harbour area to the south of the site due to the presence of the bund that defines the southern and western boundaries of the wider Thornbush Site. Distance has a significant diminishing effect from opposite shoreline locations. The proposed development should, therefore, be an acceptable development for the lifetime envisaged.

6.2 Visual Impact:

All viewpoints experience a low or negligible impact in the short and in the long term. These results generally reflect the extent to which the proposed development is visually contained by existing boundary screening that includes a vegetation screen to the north and west, and existing bunding to the south. In addition, distance has a significant diminishing effect in views from the southern shoreline of Lough Mahon.

6.3. Conclusion

The proposed development must be seen in terms of the wider restoration of the adjacent derelict site. In this context it facilitates the enhancement of the general environs over time and is therefore appropriate to and complementary to the values inherent in the landscape.

7.0. Mitigation

Mitigation would consist of appropriate fast growing vegetation planted on the proposed berms in the north of the Application Site.

Planting species for screening should consist of the following mix of native species:

Species	Common Name	%	Size (cm)
<i>Fraxinus excelsior</i>	Ash	30	60-90
<i>Crateagus monogyna</i>	Hawthorn	10	60-90
<i>Pinus sylvestris</i>	Scot's pine	10	60-90
<i>Alnus glutinosa</i>	Alder	20	60-90
<i>Prunus spinosa</i>	Blackthorn	5	60-90
<i>Corylus avellana</i>	Hazel	5	60-90
<i>Ilex aquifolium</i>	Holly	5	60-90
<i>Quercus robur</i>	Oak	5	60-90
<i>Betula pendula</i>	Birch	10	60-90

These should generally be planted at 3 / sq.m, in groups 15 – 35, in well prepared planting pits, using temporary protective planting tubes or similar to assist establishment.

- Dominant tree species should be planted at 2m centres, using small stakes, throughout the shrubby mix in groups of 5 – 15no.

REFERENCES

- Reports and documents referred to in the compilation of this report include:-
- EPA's Guidelines on the Information to be Contained in Environmental Impact Statements, 2002
- The Landscape Institute's Guidelines for Visual Impact Assessment, 2002 (UK).
- Landscape and Landscape Assessment Consultation Draft Guidelines for Planning Authorities, 2000 – Department of the Environment and Local Government.
- Cork County Development Plan 2003

*For inspection purposes only.
Consent of copyright owner required for any other use.*