

**View 4. O'Connell Street at Cathal Brugha Street:** This view looks south west from the eastern pavement of O'Connell Street at the north side of the junction of Cathal Brugha Street and O'Connell Street. This view is based on a photograph taken in winter conditions. The Proposed Developments on Sites 2AB, 2C and No.61 O'Connell Street Upper are seen openly on the west side of O'Connell Street and occupy a large part of the view. New façades can be seen where there are currently empty sites and where existing late 20<sup>th</sup> buildings are proposed to be replaced. At No.61 O'Connell Street Upper, the change will be the creation of a pedestrian link through the ground floor, linking O'Connell Street to Henry Place, but this is imperceptible in View 4. In summer conditions when the street trees are in leaf, most of the Proposed Development up to the parapet level of the O'Connell Street façades will be concealed from view by street trees on the west side of O'Connell Street. The upper set back parts of the development will remain in view. The existence of development on Sites 2AB and 2C will result in a significant change in the visual character of O'Connell Street when observed from this view location. The retention and refurbishment of existing façades and the introduction of new façades are likely to be seen by most observers as having a positive impact on the character of O'Connell Street. Given the considerable extent of new development in the area, existing, under construction and approved, some observers may regard the Proposed Development as being consistent with existing and emerging trends. The potential landscape and visual effects likely to arise at this view location from the existence of Proposed Developments on Sites 2AB and 2C are assessed as 'moderate' to 'significant'.

**View 4a. O'Connell Street at The Carlton:** This view looks south west from the eastern pavement of O'Connell Street a little to the north of the former Carlton Cinema. This view is based on a photograph taken in summer conditions. The Proposed Developments on Site 2AB is seen behind trees on the west side of O'Connell Street and occupies a large part of the view. New façades can be seen on both sides of the retained Carlton façade, where there are currently empty sites and where existing late 20<sup>th</sup> buildings are proposed to be replaced. Substantial parts of the Proposed Development up to the parapet level of the O'Connell Street façades are concealed from view by street trees on the west side of O'Connell Street. The upper set back parts of the development remain in view. The existence of development on Sites 2AB and 2C will result in a significant change in the visual character of O'Connell Street when observed from this view location. The retention and refurbishment of existing façades and the introduction of new façades and the new pedestrian link through No 61 Upper O'Connell Street Upper are likely to be seen by most observers as having a positive impact on the character of O'Connell Street. Given the considerable extent of new development in the area, existing, under construction and approved, some observers may regard the Proposed Development as being consistent with existing and emerging trends. The potential landscape and visual effects likely to arise at this view location from the existence of Proposed Developments on 2AB, 2C and No.61 O'Connell Street Upper are assessed as 'moderate' to 'significant'.

**View 5. Cathal Brugha Street near O'Connell Street:** This view looks west from within Cathal Brugha Street out onto O'Connell Street. This view is based on a photograph taken in winter conditions. The Proposed Development on Site 2C is seen openly on the west side of O'Connell Street and occupies the left half of the view. A new façade can be seen on the extreme left hand side of the view replacing an existing late 20<sup>th</sup> building. The façades of Nos. 43, 44 and 45 Upper O'Connell Street are retained. In summer conditions when the street trees are in leaf, most of the Proposed Development up to the parapet level of the O'Connell Street façades will be concealed from view by street trees on the west side of O'Connell Street. The upper set back parts of the development will remain in view. The existence of development on Site 2C will result in a significant change in the visual character of O'Connell Street when observed from this view location. The retention and refurbishment of existing façades and the introduction of new façades are likely to be seen by most observers as having a positive impact on the character of O'Connell Street. Given the considerable extent of new development in the area, existing, under construction and approved, some observers may regard the Proposed Development as being consistent with existing and emerging trends. The potential landscape and visual effects likely to arise at this view location from the existence of Proposed Development on Site 2C are assessed as 'moderate' to 'significant'.

**View 5a. Cathal Brugha Street:** This view looks west from near the east end of Cathal Brugha Street out onto O'Connell Street. This view is based on a photograph taken in summer conditions. The Proposed Developments on Site 2C is seen on the west side of O'Connell Street in the centre of the

view. Most of the Proposed Development up to the parapet level of the O'Connell Street façades is concealed from view by street trees on the west side of O'Connell Street. The existence of development on Site 2C will result in a significant change in the visual character of O'Connell Street when observed from this view location. The retention and refurbishment of existing façades is likely to be seen by most observers as having a positive impact on the character of O'Connell Street. Given the considerable extent of new development in the area, existing, under construction and approved, some observers may regard the Proposed Development as being consistent with existing and emerging trends. The potential landscape and visual effects likely to arise at this view location from the existence of Proposed Development on Site 2C are assessed as 'moderate' to 'significant'.

**View 6a. O'Connell Street at the GPO:** This view looks north west from the eastern side of O'Connell Street opposite the GPO. This view is based on a photograph taken in winter conditions. Upper parts of the Proposed Developments on Sites 2AB and 2C are visible in the centre of the view. The lower parts of the Proposed Development are concealed by winter trees on the west side of Upper O'Connell Street. The Proposed Development is a relatively minor but clearly noticeable element in the view. The proposed creation of a pedestrian link through the ground floor of No.61 O'Connell Street Upper is imperceptible. The existence of development on Sites 2AB and 2C will result in a significant change in the visual character of O'Connell Street when observed from this view location. Given the considerable extent of new development in the area, existing, under construction and approved, some observers may regard the Proposed Development as being consistent with existing and emerging trends. The potential landscape and visual effects likely to arise at this view location from the existence of Proposed Development on Sites 2AB and 2C are assessed as 'moderate'.

**View 7. O'Connell Street at Abbey Street:** This view looks north west from the eastern pavement of O'Connell Street on the south side of the junction of Lower Abbey Street with O'Connell Street. This view is based on a photograph taken in summer conditions. The proposed creation of a pedestrian link through the ground floor of No.61 O'Connell Street Upper is imperceptible. Upper parts of the Proposed Developments on Sites 2AB and 2C are visible in the middle distance in the centre of the view. The Proposed Development is a minor but noticeable element in the view. The existence of development on Sites 2AB and 2C will result in a change in the visual character of O'Connell Street when observed from this view location. However, in the context of the bustle of activity on O'Connell Street, only a limited number of observers are likely to notice the development from this distance. Given the considerable extent of new development in the area, existing, under construction and approved, some observers may regard the Proposed Development as being consistent with existing and emerging trends. The potential landscape and visual effects likely to arise at this view location from the existence of Proposed Development on Sites 2AB and 2C are assessed as 'slight' to 'moderate'. Telecoms equipment will be just discernible in this view above buildings on Site 2C but will not give rise to any change in the extent of assessed landscape and visual effects.

**View 8. O'Connell Bridge:** This view looks north west from a traffic island on the south side of Burgh Quay at its junction with O'Connell Bridge and D'Olier Street. This view is based on a photograph taken in summer conditions. The proposed creation of a pedestrian link through the ground floor of No.61 O'Connell Street Upper is imperceptible. Upper parts of the Proposed Developments on Sites 2AB and 2C are visible in the distance in the centre of the view, seen above and beside the portico of the GPO. The Proposed Development is a minor but noticeable element in the view. The existence of development on Sites 2AB and 2C will result in a change in the visual character of O'Connell Street when observed from this view location. However, in the context of the bustle of activity on O'Connell Street and O'Connell Bridge, only a limited number of observers are likely to notice the development from this distance. Given the considerable extent of new development in the area, existing, under construction and approved, some observers may regard the Proposed Development as being consistent with existing and emerging trends. The potential landscape and visual effects likely to arise at this view location from the existence of Proposed Development on Sites 2AB and 2C are assessed as 'moderate'. Telecoms equipment will be just discernible in this view above buildings on Site 2C but will not give rise to any change in the extent of assessed landscape and visual effects.

**View 9. Cavendish Row:** This view looks south from the eastern pavement of Cavendish Row across the street from the Gate Theatre. This view is based on a photograph taken in winter conditions. The proposed creation of a pedestrian link through the ground floor of No.61 O'Connell Street Upper is imperceptible. Upper parts of the Proposed Developments on Sites 2AB and 2C are visible to the right

of the view, seen above and behind the Rotunda, a building on western corner of Upper O'Connell Street and Parnell Street, and No. 24 Upper O'Connell Street. The Proposed Development at Site 2AB and 2C is clearly visible in the view, but is not the focus of the view. The existence of development on Site 2 will result in a change in the visual character of O'Connell Street when observed from this view location. However, other buildings are more prominent in the view, such as the Rotunda and the light grey modern building on the corner of Upper O'Connell Street and Cathal Brugha Street. Given the considerable extent of new development in the area, existing, under construction and approved, some observers may regard the Proposed Development as being consistent with existing and emerging trends. The potential landscape and visual effects likely to arise at this view location from the existence of Proposed Development on Sites 2AB and 2C are assessed as 'moderate'.

**View 10. Parnell Square West:** This view looks south from the western pavement of Parnell Square West, opposite the Parnell Square entrance to the Rotunda Hospital. Buildings that form part of the Rotunda Hospital occupy the left hand side of the view. Jury's Inn and the new hotel under construction beside it are to the right of the view. This view is based on a photograph taken in summer conditions, but there are no trees in the view that would affect the visibility of the Proposed Development. In the view as proposed the tallest element of the Proposed Development on Site 2C is seen in the context of the hotel under construction. Parts of lower elements of the development on Site 2C are also visible. The Proposed Development is clearly visible in the view. The existence of development on Sites 2AB and 2C will result in some change in the visual character of Parnell Street and Parnell Square West when observed from this view location. However, other buildings are more prominent in the view. The potential landscape and visual effects likely to arise at this view location from the existence of Proposed Development on Sites 2AB and 2C are assessed as 'moderate'.

**View 11. Moore Street looking into O'Rahilly Parade:** This view looks east from the west side of Moore Street into O'Rahilly Parade. The tallest element that forms part of the development on Site 2C is seen centrally in the view at the end of O'Rahilly Parade. The Proposed Development is the focus of the view. Given the considerable extent of new development in the area, existing, under construction and approved, some observers may regard the Proposed Development as being consistent with existing and emerging trends. The potential landscape and visual effects likely to arise at this view location from the existence of Proposed Development on Sites 2AB and 2C are assessed as 'moderate'.

**View 12. Moore St looking towards the National Monument:** This view looks north east along Moore towards the National Monument from the corner of Moore Street and Samsons Lane. The Proposed Development is not visible in the view and is represented by a red outline. The potential landscape and visual effects likely to arise at this view location from the existence of Proposed Development on Sites 2AB and 2C is assessed as none.

**View 12a. Moore St looking into Henry Place:** This view looks east across Moore Street into Henry Place from the junction of Moore Street and Samsons Lane. The main elements of the Proposed Development Sites 2AB and 2C are not visible in the view and are represented by a red outline. Part of the rear of No 61 Upper O'Connell Street Upper is visible in the view, seen at the north east corner of Henry Place. This building is proposed to be renovated and altered. The principle change proposed to the building is the introduction of a passageway through the building from O'Connell Street to Henry Place. This passageway is just visible in the view. The potential landscape and visual effects likely to arise at this view location from the existence of Proposed Development on Site 2 and No.61 O'Connell Street Upper is assessed as 'slight'.

**View 13. Henry Street at Liffey Street:** This view looks east along Henry Street from the centre of the junction of Henry Street and Liffey Street. The Proposed Development Sites 2AB and 2C is not visible in the view and is represented by a red outline. The potential landscape and visual effects likely to arise at this view location from the existence of Proposed Development on Site 2 and No.61 O'Connell Street Upper is assessed as none.

**View 14. Parnell Street at Dominick Street:** This view looks east from the central reservation of Parnell Street at the junction with Dominick Street. This view is based on a photograph taken in winter conditions. The Proposed Development Sites 2AB and 2C is not visible in the view and is represented by a red outline. The potential landscape and visual effects likely to arise at this view location from

the existence of Proposed Development on Sites 2 and No.61 O'Connell Street Upper is assessed as none.

**View 15. Sean McDermott Street at Gardiner Street:** This view looks west from the north eastern corner of the junction of Gardiner Street and Sean McDermott Street. This view is based on a photograph taken in winter conditions. The upper part of the tallest element of the Proposed Developments on Site 2C is seen in the distance in the centre of the view. The existence of development on Site 2C will result in a small change in the visual character of Sean McDermott Street when observed from this view location. The potential landscape and visual effects likely to arise at this view location from the existence of Proposed Development on Site 2C are assessed as 'slight' to 'moderate'.

**View 16. Marlborough Street at North Earl Street:** This view looks west along North Earl Street from the east side of Marlborough Street. The proposed development Sites 2AB and 2C is not visible in the view and is represented by a red outline. The potential landscape and visual effects likely to arise at this view location from the existence of Proposed Development on Sites 2 and No.61 O'Connell Street Upper is assessed as none.

#### 12.5.2.8 Do-Nothing Impact

In the 'do-nothing' scenario, no development will take place, and the present, partly obsolescent character of the site will remain.

## 12.6 MITIGATION MEASURES (AMELIORATIVE, REMEDIAL OR REDUCTIVE MEASURES)

### 12.6.1 Dublin Central Masterplan

Not applicable as the masterplan is still being refined and discussions with the Planning Authority are on-going. Notwithstanding this, as the masterplan presents an integrated design for a new city quarter, no remedial or reductive measures are likely to be applicable.

### 12.6.2 Proposed Development – Site 2 & No. 61 O'Connell Street Upper

#### 12.6.2.1 Construction Stage

No mitigation measures have been proposed with respect to effects from the construction of the Proposed Development.

#### 12.6.2.2 Operational Stage

Since the Proposed Development is an integrated design for a new city quarter, no remedial or reductive measures are applicable. In these circumstances, during the construction or operational phases scope for mitigation measures, which would preserve a sustainable level of density, is limited. However, developments already planned, approved or under construction near the site or elsewhere in the city will reduce the potential visibility of the Proposed Development, and thereby mitigate the extent of its visual impact.

## 12.7 RESIDUAL IMPACT

### 12.7.1 Dublin Central Masterplan

Not applicable as the masterplan is still being refined and discussions with the Planning Authority are on-going. Notwithstanding this, as the masterplan presents an integrated design for a new city quarter, no remedial or reductive measures are likely to be applicable.

## **12.7.2 Proposed Development – Site 2 & No. 61 O'Connell Street Upper**

Since remedial and reductive measures do not apply, residual impacts will, initially, be as tabulated for potential impacts, above. Reduction in the visibility of the Proposed Development, resulting from the construction of other development, will gradually reduce its visibility and thereby its impacts, whether positive, negative or neutral in character.

### **12.7.2.1 Worst Case Impact**

The effects considered above represent the 'worst case' scenario.

## **12.8 MONITORING**

Monitoring is not applicable to this chapter.

## **12.9 REINSTATEMENT**

Reinstatement is not applicable to this chapter.

## **12.10 DIFFICULTIES ENCOUNTERED**

No difficulties were encountered in the preparation of this chapter.

## 14 MATERIAL ASSETS (WASTE)

### 14.1 INTRODUCTION

This chapter evaluates the likely significant effects, if any, which the proposed development may have on Material Assets (related to waste management) as defined in the EIA Directive (Directive 2011/92/EU as amended by Directive 2014/52/EU), the EPA EIA Report Guidelines 2022 and EPA Draft Advice Notes for EIS 2015.

Dublin Central is underpinned by a Masterplan which will be assessed also. TII is expected to make an application for a Railway Order for the MetroLink project, including a future MetroLink Station serving O'Connell Street within the Dublin Central site.

The Dublin Central proposed development accommodates a structural box (c. 120m length, c.26m width, c.34.5m depth) beneath the ground floor level that has been designed to accommodate the independent construction and operation of the planned O'Connell Street MetroLink Station by TII, including provision of the structural envelope and co-ordinated voids to accommodate station entrances, ventilation and fire escape shafts through this part of the Dublin Central proposed development. These ensure that the Dublin Central proposed development is structurally independent of, and not prejudicial to, the MetroLink project.

This application does not include any request for permission for railway works, the use of railway works or the operation of a railway. The MetroLink project will be the subject of a separate application for railway order to be made by TII. In the event that MetroLink project is delayed or does not proceed, the Dublin Central proposed development can be completed, occupied and used regardless. The Dublin Central proposed development is not dependent on the MetroLink project in any way, whether functionally or otherwise. The MetroLink project is not, therefore, part of the project the subject of this EIAR. The description of the likely significant effects on the environment of the Dublin Central proposed development within this EIAR is not required to include effects on the environment resulting from the cumulation of effects with the MetroLink project.

This EIAR describes, in outline, the likely evolution of the current state of the environment (the baseline scenario), both with and without the MetroLink project. This outline has been completed with reasonable effort on the basis of available information, at the date of this application. For this purpose, the potential for the Dublin Central proposed development to impact on a future environment that includes the MetroLink project has been carefully considered, by the Applicant and TII. The MEW has been designed and incorporated to the Dublin Central proposed development to ensure that it is structurally independent of, and not prejudicial to, the MetroLink project. It follows that the Dublin Central proposed development is not likely to have any significant impact on the MetroLink project to report within this EIAR, or any different effect on the environment, after its evolution to include the MetroLink project.

The likely evolution of the current state of the environment (the baseline scenario) with the MetroLink project involves the excavation of material for construction of the intended station and railway line. The Dublin Central proposed development is not likely to have any significant impact on the MetroLink project to report within this EIAR, or any different effect on the environment, after its evolution to include the MetroLink project.

This Chapter was prepared by Chonaill Bradley of AWN Consulting. Chonaill Bradley is a Principal Environmental Consultant in the Environment Team at AWN. He holds a BSc in Environmental Science from Griffith University, Australia. He is an Associate Member of the Institute of Waste Management (CIWM). Chonaill has over eight years' experience in the environmental consultancy sector.

A site-specific Resource Waste Management Plan (RWMP) has been prepared by AWN Consulting Ltd to deal with waste generation during the demolition, excavation and construction phases of the proposed Development and has been included as Appendix 14.1. The RWMP was prepared in accordance with the Environmental Protection Agency's (EPA) document 'Best Practice Guidelines for the Preparation of Resource and Waste Management Plans for Construction & Demolition Projects' (2021)

A separate Operational Waste Management Plan (OWMP) has also been prepared for the operational phase of the Proposed Development and is included as Appendix 14.2 of this Chapter.

The Chapter has been prepared in accordance with European Commissions Guidelines, Guidance on the preparation of the Environmental Impact Assessment Report (2017), the EPA Guidelines on the Information to be contained in EIAR (2022) and the EU Commission Notice on changes and extensions to projects, (2021).

These documents will ensure the sustainable management of wastes arising at the Development Site in accordance with legislative requirements and best practice standards.

## 14.2 ASSESSMENT METHODOLOGY

The assessment of the impacts of the Proposed Development arising from the consumption of resources and the generation of waste materials, was carried out considering the methodology specified in relevant guidance documents, along with an extensive document review to assist in identifying current and future requirements for waste management including national and regional waste policy, waste strategies, management plans, legislative requirements and relevant reports.

This Chapter is based on the Proposed Development, as described in Chapter 3: Description of Proposed Development and considers the following aspects: -

- Legislative context.
- Construction phase (including demolition, excavation & construction).
- Operational phase.

A desk study was carried out which included the following: -

- Review of applicable policy and legislation which creates the legal framework for resource and waste management in Ireland.
- Description of the typical waste materials that will be generated during the construction and operational phases.
- Identification of mitigation measures to prevent waste generation and promote management of waste in accordance with the waste hierarchy.

Estimates of waste generation during the demolition, construction and operational phases of the Proposed Development have been calculated. The waste types and estimated quantities are based on published data by the EPA in the National Waste Reports and National Waste Statistics, the operating phase of this development, Irish and US EPA waste generation research as well as other available research sources.

Mitigation measures are proposed to minimise the effect of the proposed development on the environment during the demolition, construction and operational phases, to promote efficient waste segregation and to reduce the quantity of waste requiring disposal. This information is presented in Section 14.6.

A detailed review of the existing ground conditions on a regional, local and site-specific scale are presented in Chapter 6: Land, Soils and Geology. Chapter 6 of the EIAR also discusses the environmental quality of any soils which will have to be excavated to facilitate construction of the Proposed Development.

**14.2.1 Legislation and Guidance**

Waste management in Ireland is subject to EU, national and regional waste legislation and control, which defines how waste materials must be managed, transported and treated. The overarching EU legislation is the Waste Framework Directive (2008/98/EC) which is transposed into national legislation in Ireland. The cornerstone of Irish waste legislation is the Waste Management Act 1996 (as amended). European and national waste management policy is based on the concept of 'waste hierarchy', which sets out an order of preference for managing waste (prevention > preparing for reuse > recycling > recovery > disposal) (Figure 14.1).



Figure 14.1: Waste Hierarchy (Source: European Commission).

EU and Irish National waste policy also aims to contribute to the circular economy by extracting high-quality resources from waste as much as possible. Circular Economy (CE) is a sustainable alternative to the traditional linear (take-make-dispose) economic model, reducing waste to a minimum by reusing, repairing, refurbishing, and recycling existing materials and products. (Figure 14.2).

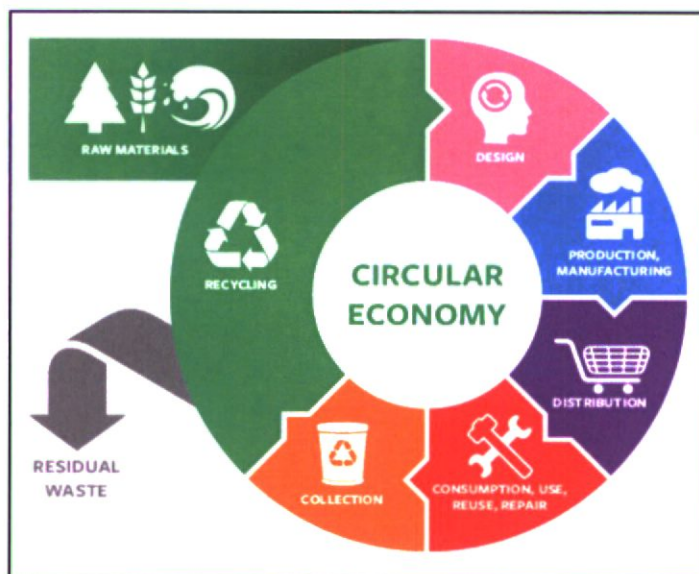


Figure 14.2: Circular Economy (Source: Repak)



The Irish government issues policy documents which outline measures to improve waste management practices in Ireland and help the country to achieve EU targets in respect of recycling and disposal of waste. The most recent policy document, Waste Action Plan for a Circular Economy (WAPCE) – Waste Management Policy in Ireland, was published in 2020 and shifts focus away from waste disposal and moves it back up the production chain. The move away from targeting national waste targets is due to the Irish and international waste context changing in the years since the launch of the previous waste management plan, A Resource Opportunity, in 2012.

One of the first actions to be taken from the WAPCE was the development of the Whole of Government Circular Economy Strategy 2022-2023 'Living More, using Less' (2021) to set a course for Ireland to transition across all sectors and at all levels of Government toward circularity and was issued in December 2021.

The Circular Economy and Miscellaneous Provisions Act 2022 was signed into law in July 2022. The Act underpins Ireland's shift from a "take-make-waste" linear model to a more sustainable pattern of production and consumption, that retains the value of resources in our economy for as long as possible and that will work to significantly reduce our greenhouse gas emissions. The Act defines CE for the first time in Irish law, incentivises the use of recycled and reusable alternatives to wasteful, single-use disposable packaging, introduces a mandatory segregation and incentivised charging regime for commercial waste, streamlines the national processes for End-of-Waste and By-Products decisions.

The strategy for the management of waste from the construction phase is in line with the requirements of the EPA's Best Practice Guidelines for the Preparation of Resource and Waste Management Plans for Construction & Demolition Projects' and the DoEHLG's Best Practice Guidelines for the Preparation of Waste Management Plans for Construction and Demolition Projects. The guidance document, Construction and Demolition Waste Management: A Handbook for Contractors and Site Managers (FÁS & Construction Industry Federation, 2002), was also consulted in the preparation of this assessment.

There are currently no Irish guidelines on the assessment of operational waste generation, and guidance is taken from industry guidelines, plans and reports including the Eastern-Midlands Region (EMR) Waste Management Plan 2015 – 2021 (currently under review), Draft National Waste Management Plan for a Circular Economy (NWMPE), BS 5906:2005 Waste Management in Buildings – Code of Practice, the Dublin City Council (DCC) Waste Management (Storage, Presentation and Segregation of Household and Commercial Waste) Bye-Laws 2018, the EPA National Waste Database Reports 1998 – 2020 and the EPA National Waste Statistics Web Resource.

#### 14.2.2 Terminology

Note that the terminology used herein is generally consistent with the definitions set out in Article 3 of the Waste Framework Directive. Key terms are defined as follows: -

- **Waste** – Any substance or object which the holder discards or intends or is required to discard.
- **Prevention** – Measures taken before a substance, material or product has become waste, that reduce: -
  - a) the quantity of waste, including through the re-use of products or the extension of the life span of products.
  - b) the adverse impacts of the generated waste on the environment and human health.
  - c) the content of harmful substances in materials and products.
- **Reuse** – Any operation by which products or components that are not waste are used again for the same purpose for which they were conceived.
- **Preparing for Reuse** – Checking, cleaning or repairing recovery operations, by which products or components of products that have become waste are prepared so that they can be re-used without any other pre-processing.

- **Treatment** – Recovery or disposal operations, including preparation prior to recovery or disposal.
- **Recovery** – Any operation the principal result of which is waste serving a useful purpose by replacing other materials which would otherwise have been used to fulfil a particular function, or waste being prepared to fulfil that function, in the plant or in the wider economy. Annex II of the Waste Framework Directive sets out a non-exhaustive list of recovery operations.
- **Recycling** – Any recovery operation by which waste materials are reprocessed into products, materials or substances whether for the original or other purposes. It includes the reprocessing of organic material but does not include energy recovery and the reprocessing into materials that are to be used as fuels or for backfilling operations.
- **Disposal** – Any operation which is not recovery even where the operation has as a secondary consequence the reclamation of substances or energy. Annex I sets out a non-exhaustive list of disposal operations.

### 14.3 RECEIVING ENVIRONMENT

In terms of waste management, the receiving environment is largely defined by Dublin City Council (DCC) as the local authority responsible for setting and administering waste management activities in the area. This is governed by the requirements set out in the Eastern-Midlands Region (EMR) Waste Management Plan 2015 – 2021 and the draft NWMPCE (2023) which will supersede the three current regional waste management plans in Ireland.

The waste management plan sets out the following targets for waste management in the region: -

- Achieve a recycling rate of 55% of managed municipal waste by 2025.
- Reduce to 0% the direct disposal of unprocessed residual municipal waste to landfill (from 2016 onwards) in favour of higher value pre-treatment processes and indigenous recovery practices.

The Plan sets out the strategic targets for waste management in the region and sets a specific target for C&D waste of “70% preparing for reuse, recycling and other recovery of construction and demolition waste” (excluding natural soils and stones and hazardous wastes) to be achieved by 2020.

The Regional Waste Management Planning Offices have issued a new Draft National Waste Management Plan for a Circular Economy (NWMPCE) in June 2023, which is set to replace the EMR and the two other regional waste management plans. The Draft NWMPCE does not however dissolve the three regional waste areas. The NWMPCE sets the ambition of the plan to have a 0% total waste growth per person over the life of the Plan with an emphasis on non-household wastes including waste from commercial activities and the construction and demolition sector.

The National Waste Statistics update published by the EPA in December 2022 identifies that Ireland’s current against “Preparing for reuse and recycling of 50% by weight of household derived paper, metal, plastic & glass (includes metal and plastic estimates from household WEEE)” was met for 2020 at 51% however they are currently not in line with the 2025 target (55%).

The Dublin City Development Plan 2022 – 2028 also set out policies and objectives for the DCC area which reflect those set out in the regional waste management plan.

In terms of physical waste infrastructure, DCC no longer operates any municipal waste landfill in the area. There are a number of waste permitted and licensed facilities located in the Eastern-Midlands Waste Region for management of waste from the construction industry as well as municipal sources. These include soil recovery facilities, inert C&D waste facilities, hazardous waste treatment facilities, municipal waste landfills, material recovery facilities, waste transfer stations and two waste-to-energy facilities.

## 14.4 CHARACTERISTICS OF PROPOSED DEVELOPMENT

### 14.4.1 Dublin Central Masterplan

A full description of the development can be found in Chapter 3: Description of Proposed Development. The characteristics of the development that are relevant in terms of waste management are summarised below.

#### 14.4.1.1 Demolition Stage

There will be a quantity of waste materials generated from the demolition and renovation of some of the existing buildings and hardstanding areas on site, as well as from the excavation of the building foundations.

Further detail on the waste materials likely to be generated during the demolition works are presented in the project-specific RWMP in Appendix 14.1. The RWMP provides an estimate of the main waste types likely to be generated during the C&D phase of the Proposed Development. The reuse, recycling / recovery and disposal rates have been estimated using the EPA National Waste Reports and these are summarised in Table 14.1.

Waste Type	Tonnes	Reuse		Recycle / Recovery		Disposal	
		%	Tonnes	%	Tonnes	%	Tonnes
Glass	2027.9	0	0.0	85	1723.7	15	304.2
Concrete, Bricks, Tiles, Ceramics	11491.4	30	3447.4	65	7469.4	5	574.6
Plasterboard	901.3	30	270.4	60	540.8	10	90.1
Asphalts	225.3	0	0.0	25	56.3	75	169.0
Metals	3379.8	5	169.0	80	2703.9	15	507.0
Slate	1802.6	0	0.0	85	1532.2	15	270.4
Timber	2703.9	10	270.4	60	1622.3	30	811.2
Asbestos	7.0	0	0.0	0	0.0	100	7.0
<b>Total</b>	<b>22539.2</b>		<b>4157.2</b>		<b>15648.6</b>		<b>2731.4</b>

**Table 14.1:** Estimated off-site reuse, recycle and disposal rates for demolition waste.

#### 14.4.1.2 Construction Stage

During the construction phase, waste will be produced from surplus materials such as broken or off-cuts of timber, plasterboard, concrete, tiles, bricks, etc. Waste from packaging (cardboard, plastic, timber) and oversupply of materials may also be generated. The construction contractor will be required to ensure that oversupply of materials is kept to a minimum and opportunities for reuse of suitable materials is maximised.

In addition soil, stone, silt, sand and clay will require excavation to facilitate the basement and construction of foundations, along with the installation of underground services.

These estimates will be refined prior to commencement of construction, or in the event that the Dublin Central Masterplan is amended. If the material that requires removal from site is deemed to be a waste, removal and reuse / recycling / recovery / disposal of the material will be carried out in accordance with the Waste Management Act 1996 (as amended), the Waste Management (Collection Permit) Regulations 2007 (as amended) and the Waste Management (Facility Permit & Registration) Regulations 2007 (as amended). The volume of waste requiring recovery/disposal will dictate whether a Certificate of Registration (COR), permit or licence is required for the receiving facility. Alternatively,

the material may be classed as by-product under Regulation 27 of the European Communities (Waste Directive) Regulations 2011, as amended. In order to establish the appropriate reuse, recovery and / or disposal route for the soils and stones to be removed off-site, it will first need to be classified. Waste material will initially need to be classified as hazardous or non-hazardous in accordance with the EPA publication Waste Classification – List of Waste & Determining if Waste is Hazardous or Non-Hazardous. Environmental soil analysis will be carried out prior to removal of the material on a number of the soil samples in accordance with the requirements for acceptance of waste at landfills (Council Decision 2003/33/EC Waste Acceptance Criteria). This legislation sets limit values on landfills for acceptance of waste material based on properties of the waste including potential pollutant concentrations and leachability. It is anticipated that the surplus material will be suitable for acceptance at either inert or non-hazardous soil recovery facilities / landfills in Ireland or, in the unlikely event of hazardous material being encountered, be transported for treatment / recovery or exported abroad for disposal in suitable facilities.

Waste will also be generated from construction workers e.g. organic / food waste, dry mixed recyclables (waste paper, newspaper, plastic bottles, packaging, aluminium cans, tins and Tetra Pak cartons), mixed non-recyclables and potentially sewage sludge from temporary welfare facilities provided onsite during the construction phase. Waste printer / toner cartridges, waste electrical and electronic equipment (WEEE) and waste batteries may also be generated infrequently from site offices.

Further detail on the waste materials likely to be generated during the construction works are presented in the project-specific RWMP. The RWMP provides an estimate of the main waste types likely to be generated during the C&D phase of the Proposed Development and these are summarised in Table 14.2.

Waste Type	Tonnes	Reuse		Recycle / Recovery		Disposal	
		%	Tonnes	%	Tonnes	%	Tonnes
Mixed C&D	1691.7	10	169.2	80	1353.4	10	169.2
Timber	1435.4	40	574.2	55	789.5	5	71.8
Plasterboard	512.6	30	153.8	60	307.6	10	51.3
Metals	410.1	5	20.5	90	369.1	5	20.5
Concrete	307.6	30	92.3	65	199.9	5	15.4
Other	769.0	20	153.8	60	461.4	20	153.8
<b>Total</b>	<b>5126.3</b>		<b>1163.7</b>		<b>3480.8</b>		<b>481.9</b>

**Table 14.2:** Estimated off-site reuse, recycle and disposal rates for construction waste

In addition to Table 14.2 the project engineers (Waterman Group) have estimated 163,490m<sup>3</sup> of material will require excavation (i.e. all Sites within the Dublin Central Masterplan area). There is limited chance for reuse of material onsite and it is envisaged that all material, will need to be removed offsite due to the limited opportunities for reuse on site. These estimates will be refined prior to commencement of construction.

#### 14.4.1.3 Operational Stage

As noted in Section 14.1, an OWMP has been prepared for the development and is included as Appendix 14.2. The OWMP provides a strategy for segregation (at source), storage and collection of all wastes generated within the buildings during the operational phase including dry mixed recyclables, organic waste and mixed non-recyclable waste as well as providing a strategy for

management of waste glass, batteries, WEEE, printer / toner cartridges, chemicals, textiles, waste cooking oil and furniture.

The total estimated waste generation for the development of the Dublin Central Masterplan for the main waste types based on the AWN WGM is presented in Table 14.3 below and is based on the uses and areas as advised by the project architects in April 2022.

Waste Type	Waste Volume (m <sup>3</sup> /week)			
	Residential Units (Combined)	Retail, Cultural and Café / Restaurant Units (Combined)	Hotel Units (Combined)	Office Units (Combined)
Organic Waste	1.14	3.17	2.49	3.82
Dry Mixed Recyclables	8.06	17.15	5.08	30.04
Glass	0.22	1.73	3.52	0.69
Mixed Non-Recyclables	4.24	23.51	5.95	36.46
Confidential Paper	-	-	-	5.71
Cardboard (For Baling)	-	36.41	-	29.06
Plastic (For Baling)	-	11.60	-	24.81
<b>Total</b>	<b>13.66</b>	<b>93.57</b>	<b>14.55</b>	<b>130.60</b>

**Table 14.3:** Estimated waste generation for the Proposed Development for the main waste types.

The residents and tenants will be required to provide and maintain appropriate waste receptacles within their units to facilitate segregation at source of these waste types. The location of the bins within the units will be at the discretion of the residents and tenants. As required, the residents and tenants will need to bring these segregated wastes from their units to their allocated Waste Storage Areas (WSAs). All WSA's can be viewed on the plans submitted with the application.

The OWMP seeks to ensure the development contributes to the targets outlined in the EMR Waste Management Plan 2015 – 2021, the draft NWMPCE and the DCC waste Bye-laws.

Mitigation measures proposed to manage impacts arising from wastes generated during the operation of the Proposed Development are summarised below.

#### 14.4.2 Proposed Development – Site 2

A full description of the development can be found in Chapter 3: Description of Proposed Development. The characteristics of the development that are relevant in terms of waste management are summarised below.

##### 14.4.2.1 Demolition Stage

There will be a quantity of waste materials generated from the demolition and renovation of the existing buildings and hardstanding areas on site, as well as from the excavation of the building foundations.

Further detail on the waste materials likely to be generated during the demolition works are presented in the project-specific RWMP in Appendix 14.1. The RWMP provides an estimate of the main waste types likely to be generated during the C&D phase of the Proposed Development. The

reuse, recycling / recovery and disposal rates have been estimated using the EPA National Waste Reports and these are summarised in Table 14.4.

Waste Type	Tonnes	Reuse		Recycle / Recovery		Disposal	
		%	Tonnes	%	Tonnes	%	Tonnes
Glass	1216.2	0	0.0	85	1033.7	15	182.4
Concrete, Bricks, Tiles, Ceramics	6891.5	30	2067.5	65	4479.5	5	344.6
Plasterboard	540.5	30	162.2	60	324.3	10	54.1
Asphalts	135.1	0	0.0	25	33.8	75	101.3
Metals	2026.9	5	101.3	80	1621.5	15	304.0
Slate	1081.0	0	0.0	85	918.9	15	162.2
Timber	1621.5	10	162.2	60	972.9	30	486.5
Asbestos	2.0	0	0.0	0	0.0	100	2.0
<b>Total</b>	<b>13514.7</b>		<b>2493.1</b>		<b>9384.6</b>		<b>1637.0</b>

**Table 14.4:** Estimated off-site reuse, recycle and disposal rates for demolition waste.

#### 14.4.2.2 Construction Stage

During the construction phase, waste will be produced from surplus materials such as broken or off-cuts of timber, plasterboard, concrete, tiles, bricks, etc. Waste from packaging (cardboard, plastic, timber) and oversupply of materials may also be generated. The construction contractor will be required to ensure that oversupply of materials is kept to a minimum and opportunities for reuse of suitable materials is maximised.

In addition soil, stone, silt, sand and clay will require excavation to facilitate the basement and construction of foundations, along with the installation of underground services.

If the material that requires removal from site is deemed to be a waste, removal and reuse / recycling / recovery / disposal of the material will be carried out in accordance with the Waste Management Act 1996 (as amended), the Waste Management (Collection Permit) Regulations 2007 (as amended) and the Waste Management (Facility Permit & Registration) Regulations 2007 (as amended). The volume of waste requiring recovery / disposal will dictate whether a Certificate of Registration (COR), permit or licence is required for the receiving facility. Alternatively, the material may be classed as by-product under Regulation 27 of the European Communities (Waste Directive) Regulations 2011, as amended. In order to establish the appropriate reuse, recovery and/or disposal route for the soils and stones to be removed off-site, it will first need to be classified. Waste material will initially need to be classified as hazardous or non-hazardous in accordance with the EPA publication Waste Classification – List of Waste & Determining if Waste is Hazardous or Non-Hazardous. Environmental soil analysis will be carried out prior to removal of the material on a number of the soil samples in accordance with the requirements for acceptance of waste at landfills (Council Decision 2003/33/EC Waste Acceptance Criteria). This legislation sets limit values on landfills for acceptance of waste material based on properties of the waste including potential pollutant concentrations and leachability. It is anticipated that the surplus material will be suitable for acceptance at either inert or non-hazardous soil recovery facilities / landfills in Ireland or, in the unlikely event of hazardous material being encountered, be transported for treatment / recovery or exported abroad for disposal in suitable facilities.

Waste will also be generated from construction workers e.g. organic / food waste, dry mixed recyclables (waste paper, newspaper, plastic bottles, packaging, aluminium cans, tins and Tetra Pak cartons), mixed non-recyclables and potentially sewage sludge from temporary welfare facilities

provided onsite during the construction phase. Waste printer / toner cartridges, waste electrical and electronic equipment (WEEE) and waste batteries may also be generated infrequently from site offices.

Further detail on the waste materials likely to be generated during the construction works are presented in the project-specific RWMP. The RWMP provides an estimate of the main waste types likely to be generated during the C&D phase of the Proposed Development and these are summarised in Table 14.5.

Waste Type	Tonnes	Reuse		Recycle / Recovery		Disposal	
		%	Tonnes	%	Tonnes	%	Tonnes
Mixed C&D	871.1	10	87.1	80	696.9	10	87.1
Timber	739.1	40	295.6	55	406.5	5	37.0
Plasterboard	264.0	30	79.2	60	158.4	10	26.4
Metals	211.2	5	10.6	90	190.1	5	10.6
Concrete	158.4	30	47.5	65	102.9	5	7.9
Other	396.0	20	79.2	60	237.6	20	79.2
<b>Total</b>	<b>2639.7</b>		<b>599.2</b>		<b>1792.3</b>		<b>248.1</b>

**Table 14.5:** Estimated off-site reuse, recycle and disposal rates for construction waste.

In addition to Table 14.5 the project engineers have estimated that c. 133,565m<sup>3</sup> of material will require excavation (i.e. for Site 2 which includes MEW). It is envisaged that all of this material will be removed offsite for appropriate reuse, recovery and / or disposal. These estimates will be refined prior to commencement of construction.

#### 14.4.2.3 Operational Stage

As noted in Section 14.1, an OWMP has been prepared for the development and is included as Appendix 14.2. The OWMP provides a strategy for segregation (at source), storage and collection of all wastes generated within the buildings during the operational phase including dry mixed recyclables, organic waste and mixed non-recyclable waste as well as providing a strategy for management of waste glass, batteries, WEEE, printer / toner cartridges, chemicals, textiles, waste cooking oil and furniture.

The tenants will be required to provide and maintain appropriate waste receptacles within their units to facilitate segregation at source of these waste types. The location of the bins within the units will be at the discretion of the residents and tenants. As required, the tenants will need to bring these segregated wastes from their units to their allocated Waste Storage Areas (WSAs). All WSA's can be viewed on the plans submitted with the application.

The OWMP seeks to ensure the development contributes to the targets outlined in the EMR Waste Management Plan 2015 – 2021, the draft NWMPCE and the DCC waste Bye-laws.

Mitigation measures proposed to manage impacts arising from wastes generated during the operation of the Proposed Development are summarised below.

The total estimated waste generation for the development of the Dublin Central Site 2 for the main waste types based on the AWN WGM is presented in Table 14.6 below and is based on the uses and areas as advised by the project architects in June 2023.

Waste Type	Waste Volume (m <sup>3</sup> /week)	
	Commercial Waste 2AB (Combined)	Commercial Waste 2C (Combined)
Organic Waste	3.42	2.98
Dry Mixed Recyclables	16.82	14.22
Glass	0.85	0.49
Mixed Non-Recyclables	20.76	16.92
Confidential Paper	8.66	9.69
Cardboard (For Baling)	22.93	15.89
Plastic (For Baling)	13.90	12.44
<b>Total</b>	<b>87.35</b>	<b>72.62</b>

**Table 14.6:** Estimated waste generation for the Proposed Development for the main waste types.

#### 14.4.3 Proposed Development – No. 61 O'Connell Street Upper

A full description of the development can be found in Chapter 3: Description of Proposed Development. The characteristics of the development that are relevant in terms of waste management are summarised below.

##### 14.4.3.1 Demolition Stage

There will be a quantity of waste materials generated from the demolition/renovation of the existing building and excavation of hardstanding areas on site.

Further detail on the waste materials likely to be generated during the demolition/renovation works are presented in the project-specific RWMP in Appendix 14.1. The RWMP provides an estimate of the main waste types likely to be generated during the C&D phase of the Proposed Development. The reuse, recycling / recovery and disposal rates have been estimated using the EPA National Waste Reports and these are summarised in Table 14.7

Waste Type	Tonnes	Reuse		Recycle / Recovery		Disposal	
		%	Tonnes	%	Tonnes	%	Tonnes
Glass	3.7	0	0.0	85	3.2	15	0.6
Concrete, Bricks, Tiles, Ceramics	21.1	30	6.3	65	13.7	5	1.1
Plasterboard	1.7	30	0.5	60	1.0	10	0.2
Asphalts	0.4	0	0.0	25	0.1	75	0.3
Metals	6.2	5	0.3	80	5.0	15	0.9
Slate	3.3	0	0.0	85	2.8	15	0.5
Timber	5.0	10	0.5	60	3.0	30	1.5
Asbestos	0.1	0	0.0	0	0.0	100	0.1
<b>Total</b>	<b>41.5</b>		<b>7.6</b>		<b>28.8</b>		<b>5.0</b>

**Table 14.7:** Estimated off-site reuse, recycle and disposal rates for demolition waste.



### 14.4.3.2 Construction Stage

During the construction phase, waste will be produced from surplus materials such as broken or off-cuts of timber, plasterboard, concrete, tiles, bricks, etc. Waste from packaging (cardboard, plastic, timber) and oversupply of materials may also be generated. The construction contractor will be required to ensure that oversupply of materials is kept to a minimum and opportunities for reuse of suitable materials is maximised.

In addition soil, stone, silt, sand and clay will require excavation to facilitate the construction of foundations, along with the installation of underground services.

If the material that requires removal from site is deemed to be a waste, removal for reuse / recycling / recovery / disposal of the material will be carried out in accordance with the Waste Management Act 1996 (as amended), the Waste Management (Collection Permit) Regulations 2007 (as amended) and the Waste Management (Facility Permit & Registration) Regulations 2007 (as amended). The volume of waste requiring recovery / disposal will dictate whether a Certificate of Registration (COR), permit or licence is required for the receiving facility. Alternatively, the material may be classed as by-product under Regulation 27 of the European Communities (Waste Directive) Regulations 2011, as amended. In order to establish the appropriate reuse, recovery and/or disposal route for the soils and stones to be removed off-site, it will first need to be classified. Waste material will initially need to be classified as hazardous or non-hazardous in accordance with the EPA publication Waste Classification – List of Waste & Determining if Waste is Hazardous or Non-Hazardous. Environmental soil analysis will be carried out prior to removal of the material on a number of the soil samples in accordance with the requirements for acceptance of waste at landfills (Council Decision 2003/33/EC Waste Acceptance Criteria). This legislation sets limit values on landfills for acceptance of waste material based on properties of the waste including potential pollutant concentrations and leachability. It is anticipated that the surplus material will be suitable for acceptance at either inert or non-hazardous soil recovery facilities / landfills in Ireland or, in the unlikely event of hazardous material being encountered, be transported for treatment / recovery or exported abroad for disposal in suitable facilities.

Waste will also be generated from construction workers e.g. organic / food waste, dry mixed recyclables (waste paper, newspaper, plastic bottles, packaging, aluminium cans, tins and Tetra Pak cartons), mixed non-recyclables and potentially sewage sludge from temporary welfare facilities provided onsite during the construction phase. Waste printer / toner cartridges, waste electrical and electronic equipment (WEEE) and waste batteries may also be generated infrequently from site offices.

Further detail on the waste materials likely to be generated during the construction works are presented in the project-specific RWMP. The RWMP provides an estimate of the main waste types likely to be generated during the C&D phase of the Proposed Development and these are summarised in Table 14.8.

Waste Type	Tonnes	Reuse		Recycle / Recovery		Disposal	
		%	Tonnes	%	Tonnes	%	Tonnes
Mixed C&D	2.7	10	0.3	80	2.2	10	0.3
Timber	2.3	40	0.9	55	1.3	5	0.1
Plasterboard	0.8	30	0.2	60	0.5	10	0.1
Metals	0.7	5	0.0	90	0.6	5	0.0
Concrete	0.5	30	0.1	65	0.3	5	0.0
Other	1.2	20	0.2	60	0.7	20	0.2
<b>Total</b>	<b>8.2</b>		<b>1.9</b>		<b>5.6</b>		<b>0.8</b>

**Table 14.8:** Estimated off-site reuse, recycle and disposal rates for construction waste.

In addition to Table 14.8 there will be a small amount of material that will require excavation (132 m<sup>3</sup>). It is envisaged that all of this material will be removed offsite for appropriate reuse, recovery and / or disposal. These estimates will be refined prior to commencement of construction.

#### 14.4.3.3 Operational Stage

As noted in Section 14.1, an OWMP has been prepared for the development and is included as Appendix 14.2. The OWMP provides a strategy for segregation (at source), storage and collection of all wastes generated within the buildings during the operational phase including dry mixed recyclables, organic waste and mixed non-recyclable waste as well as providing a strategy for management of waste glass, batteries, WEEE, printer / toner cartridges, chemicals, textiles, waste cooking oil and furniture.

The residents and tenants will be required to provide and maintain appropriate waste receptacles within their units to facilitate segregation at source of these waste types. The location of the bins within the units will be at the discretion of the residents and tenants. As required, the residents and tenants will need to bring these segregated wastes from their units to their allocated Waste Storage Areas (WSAs). All WSA's can be viewed on the plans submitted with the application.

The OWMP seeks to ensure the development contributes to the targets outlined in the EMR Waste Management Plan 2015 – 2021, the NWMPCE and the DCC waste Bye-laws.

Mitigation measures proposed to manage impacts arising from wastes generated during the operation of the Proposed Development are summarised below.

The total estimated waste generation for the development of the Dublin Central Site 61 O'Connell Street for the main waste types based on the AWN WGM is presented in Table 14.9 below and is based on the uses and areas as advised by the project architects in June 2023.

Waste Type	Waste Volume (m <sup>3</sup> /week)	
	Commercial Waste (Combined)	Residential Waste (Combined)
Organic Waste	0.06	0.05
Dry Mixed Recyclables	0.25	0.36
Glass	<0.01	0.01
Mixed Non-Recyclables	0.21	0.19
<b>Total</b>	<b>0.52</b>	<b>0.60</b>

**Table 14.9:** Estimated waste generation for the Proposed Development for the main waste types.

## 14.5 POTENTIAL IMPACTS

### 14.5.1 Dublin Central Masterplan

#### 14.5.1.1 Construction Stage

The Proposed Development will generate a range of non-hazardous and hazardous waste materials during site demolition, excavation and construction phase. General housekeeping and packaging will also generate waste materials as well as typical municipal wastes generated by construction employees including food waste. Waste materials will be required to be temporarily stored on site pending collection by a waste contractor. If waste material is not managed and stored correctly, it is likely to lead to litter or pollution issues at the development and on adjacent developments. The indirect effect of litter issues is the presence of vermin within the development and the surrounding areas. However, in the absence of mitigation, the effect on the local environment is likely to be **short term, significant and negative**.

The use of non-permitted waste contractors or unauthorised waste facilities could give rise to inappropriate management of waste and result in indirect negative environmental impacts or pollution. It is essential that all waste materials are dealt with in accordance with regional and national legislation, as outlined previously, and that time and resources are dedicated to ensuring efficient waste management practices. However, in the absence of mitigation, the effect on the local and regional environment is likely to be **long term, significant and negative**.

Wastes arising will need to be taken to suitably registered / permitted / licenced waste facilities for processing and segregation, reuse, recycling, recovery, and/or disposal as appropriate. There are numerous licensed waste facilities in the Eastern Midlands region which can accept hazardous and non-hazardous waste materials and acceptance of waste from the Proposed Development would be in line with daily activities at these facilities. At present, there is sufficient capacity for the acceptance of the likely C&D waste arisings at facilities in the region. The majority of demolition and construction materials are either recyclable or recoverable. However, in the absence of mitigation, the effect on the local environment is likely to be **short term, significant and negative**.

There is a quantity of excavated material which will need to be excavated to facilitate the Proposed Development. A detailed review of the existing ground conditions on a regional, local site-specific scale are presented in Chapter 6: Land, Soils & Geology. It is anticipated that c. 163,490m<sup>3</sup> of material will need to be excavated to do so (i.e. all Sites within the Dublin Central Masterplan area). There is limited chance for reuse of material onsite and it is envisaged that all material, will need to be removed offsite due to the limited opportunities for reuse on site. Correct classification and segregation of the excavated material is required to ensure that any potentially contaminated materials are identified and handled in a way that will not impact negatively on workers as well as on water and soil environments, both on and off-site. However, in the absence of mitigation, the effect on the local and regional environment is likely to be **short term, significant and negative**.

#### 14.5.1.2 Operational Stage

The potential impacts on the environment of improper, or a lack of, waste management during the operational phase would be a diversion from the priorities of the waste hierarchy which would lead to small volumes of waste being sent unnecessarily to landfill. However, in the absence of mitigation, significant effects are not likely. The effect is likely to be **long term, non-significant and negative**.

The nature of the development means the generation of waste materials during the operational phase is unavoidable. Networks of waste collection, treatment, recovery and disposal infrastructure are in place in the region to manage waste efficiently from this type of development. Waste which is not suitable for recycling is typically sent for energy recovery. There are also facilities in the region for segregation of municipal recyclables which is typically exported for conversion in recycled products (e.g. paper mills and glass recycling).

If waste material is not managed and stored correctly, it is likely to lead to litter or pollution issues at the development and on adjacent developments. The knock-on effect of litter issues is the presence of vermin within the development and the surrounding areas. However, in the absence of mitigation, the effect on the local environment is likely to be **short term, significant and negative**.

Waste contractors will be required to service the development on a regular basis to remove waste. The use of non-permitted waste contractors or unauthorised facilities could give rise to inappropriate management of waste and result in negative environmental impacts or pollution. It is essential that all waste materials are dealt with in accordance with regional and national legislation, as outlined previously, and that time and resources are dedicated to ensuring efficient waste management practices. However, in the absence of mitigation, the effect on the local environment is likely to be **long term, significant and negative**.

### 14.5.1.3 Do-Nothing Impact

If the proposed development was not to go ahead (i.e. in the Do-Nothing scenario) there would be no demolition, excavation or construction at this site. Current operational waste would continue to be generated at the same levels. There would, therefore, be a neutral effect on the environment in terms of waste.

## 14.5.2 Proposed Development – Site 2

### 14.5.2.1 Construction Stage

The Proposed Development will generate a range of non-hazardous and hazardous waste materials during site demolition, excavation and construction phase. General housekeeping and packaging will also generate waste materials as well as typical municipal wastes generated by construction employees including food waste. Waste materials will be required to be temporarily stored on site pending collection by a waste contractor. If waste material is not managed and stored correctly, it is likely to lead to litter or pollution issues at the development and on adjacent developments. The indirect effect of litter issues is the presence of vermin within the development and the surrounding areas. However, in the absence of mitigation, the effect on the local environment is likely to be **short term, significant and negative**.

The use of non-permitted waste contractors or unauthorised waste facilities could give rise to inappropriate management of waste and result in indirect negative environmental impacts or pollution. It is essential that all waste materials are dealt with in accordance with regional and national legislation, as outlined previously, and that time and resources are dedicated to ensuring efficient waste management practices. However, in the absence of mitigation, the effect on the local and regional environment is likely to be **long term, significant and negative**.

Wastes arising will need to be taken to suitably registered / permitted / licenced waste facilities for processing and segregation, reuse, recycling, recovery, and / or disposal as appropriate. There are numerous licensed waste facilities in the Eastern Midlands region which can accept hazardous and non-hazardous waste materials and acceptance of waste from the Proposed Development would be in line with daily activities at these facilities. At present, there is sufficient capacity for the acceptance of the likely C&D waste arisings at facilities in the region. The majority of demolition and construction materials are either recyclable or recoverable. However, in the absence of mitigation, the effect on the local environment is likely to be **short term, significant and negative**.

There is a quantity of excavated material which will need to be excavated to facilitate the Proposed Development.

A detailed review of the existing ground conditions on a regional, local site-specific scale are presented in Chapter 6: Land, Soil & Geology. It is anticipated that 133,565m<sup>3</sup> excavated material will need to be removed offsite from Site 2 (which includes MEW). Correct classification and segregation of the excavated material is required to ensure that any potentially contaminated materials are identified and handled in a way that will not impact negatively on workers as well as on water and soil environments, both on and off-site. However, in the absence of mitigation, the effect on the local and regional environment is likely to be **short term, significant and negative**.

### 14.5.2.2 Operational Stage

The potential impacts on the environment of improper, or a lack of, waste management during the operational phase would be a diversion from the priorities of the waste hierarchy which would lead to small volumes of waste being sent unnecessarily to landfill. However, in the absence of mitigation, significant effects are not likely. The effect is likely to be **long term, non-significant and negative**.

The nature of the development means the generation of waste materials during the operational phase is unavoidable. Networks of waste collection, treatment, recovery and disposal infrastructure are in place in the region to manage waste efficiently from this type of development. Waste which is not suitable for recycling is typically sent for energy recovery. There are also facilities in the region for

segregation of municipal recyclables which is typically exported for conversion in recycled products (e.g. paper mills and glass recycling).

If waste material is not managed and stored correctly, it is likely to lead to litter or pollution issues at the development and on adjacent developments. The knock-on effect of litter issues is the presence of vermin within the development and the surrounding areas. However, in the absence of mitigation, the effect on the local environment is likely to be **short term, significant and negative**.

Waste contractors will be required to service the development on a regular basis to remove waste. The use of non-permitted waste contractors or unauthorised facilities could give rise to inappropriate management of waste and result in negative environmental impacts or pollution. It is essential that all waste materials are dealt with in accordance with regional and national legislation, as outlined previously, and that time and resources are dedicated to ensuring efficient waste management practices. However, in the absence of mitigation, the effect on the local environment is likely to be **long term, significant and negative**.

#### 14.5.2.3 Do-Nothing Impact

If the proposed development was not to go ahead (i.e. in the Do-Nothing scenario) there would be no demolition, excavation or construction at this site. Current operational waste would continue to be generated at the same levels. There would, therefore, be a neutral effect on the environment in terms of waste.

### 14.5.3 Proposed Development – No. 61 O'Connell Street Upper

#### 14.5.3.1 Construction Stage

The Proposed Development will generate a range of non-hazardous and hazardous waste materials during site demolition/renovation, excavation and construction phase. General housekeeping and packaging will also generate waste materials as well as typical municipal wastes generated by construction employees including food waste. Waste materials will be required to be temporarily stored on site pending collection by a waste contractor. If waste material is not managed and stored correctly, it is likely to lead to litter or pollution issues at the development and on adjacent developments. The indirect effect of litter issues is the presence of vermin within the development and the surrounding areas. However, in the absence of mitigation, the effect on the local environment is likely to be **short term, significant and negative**.

The use of non-permitted waste contractors or unauthorised waste facilities could give rise to inappropriate management of waste and result in indirect negative environmental impacts or pollution. It is essential that all waste materials are dealt with in accordance with regional and national legislation, as outlined previously, and that time and resources are dedicated to ensuring efficient waste management practices. However, in the absence of mitigation, the effect on the local and regional environment is likely to be **long term, significant and negative**.

Wastes arising will need to be taken to suitably registered / permitted / licenced waste facilities for processing and segregation, reuse, recycling, recovery, and / or disposal as appropriate. There are numerous licensed waste facilities in the Eastern Midlands region which can accept hazardous and non-hazardous waste materials and acceptance of waste from the Proposed Development would be in line with daily activities at these facilities. At present, there is sufficient capacity for the acceptance of the likely C&D waste arisings at facilities in the region. The majority of demolition and construction materials are either recyclable or recoverable. However, in the absence of mitigation, the effect on the local environment is likely to be **short term, significant and negative**.

There is a quantity of excavated material which will need to be excavated to facilitate the Proposed Development.

A detailed review of the existing ground conditions on a regional, local site-specific scale are presented in Chapter 6: Land, Soil & Geology. It is anticipated that a small quantity of excavated material will need to be removed offsite from 61 O'Connell Street Upper as part of the construction phase. Correct classification and segregation of the excavated material is required to ensure that any potentially contaminated materials are identified and handled in a way that will not impact negatively on workers as well as on water and soil environments, both on and off-site. However, in the absence of mitigation, the effect on the local and regional environment is likely to be **short term, significant and negative**.

#### 14.5.3.2 Operational Stage

The potential impacts on the environment of improper, or a lack of, waste management during the operational phase would be a diversion from the priorities of the waste hierarchy which would lead to small volumes of waste being sent unnecessarily to landfill. However, in the absence of mitigation, significant effects are not likely. The effect is likely to be **long term, non-significant and negative**.

The nature of the development means the generation of waste materials during the operational phase is unavoidable. Networks of waste collection, treatment, recovery and disposal infrastructure are in place in the region to manage waste efficiently from this type of development. Waste which is not suitable for recycling is typically sent for energy recovery. There are also facilities in the region for segregation of municipal recyclables which is typically exported for conversion in recycled products (e.g. paper mills and glass recycling).

If waste material is not managed and stored correctly, it is likely to lead to litter or pollution issues at the development and on adjacent developments. The knock-on effect of litter issues is the presence of vermin within the development and the surrounding areas. However, in the absence of mitigation, the effect on the local environment is likely to be **short term, significant and negative**.

Waste contractors will be required to service the development on a regular basis to remove waste. The use of non-permitted waste contractors or unauthorised facilities could give rise to inappropriate management of waste and result in negative environmental impacts or pollution. It is essential that all waste materials are dealt with in accordance with regional and national legislation, as outlined previously, and that time and resources are dedicated to ensuring efficient waste management practices. However, in the absence of mitigation, the effect on the local environment is likely to be **long term, significant and negative**.

#### 14.5.3.3 Do-Nothing Impact

If the proposed development was not to go ahead (i.e. in the Do-Nothing scenario) there would be no demolition, excavation or construction at this site. Current operational waste would continue to be generated at the same levels. There would, therefore, be a neutral effect on the environment in terms of waste.

#### 14.5.4 Cumulative

As has been identified in the receiving environment section all cumulative developments that are already built and in operation contribute to our characterisation of the baseline environment. As such any further environmental impacts that the proposed development may have in addition to these already constructed and operational cumulative developments has been assessed in the preceding sections of this chapter.

#### 14.5.4.1 Construction Stage

Multiple permissions remain in place for both residential and commercial developments within the vicinity of the development. Due to the high number of waste contractors in the Dublin region there would be sufficient contractors available to handle waste generated from a large number of these sites simultaneously, if required. Similar waste materials would be generated by all the developments.

Other developments in the area will be required to manage waste in compliance with national and local legislation, policies and plans which will minimise / mitigate any potential cumulative effects associated with waste generation and waste management. As such the effect will be **short-term, not significant and negative**.

#### 14.5.4.2 Operational Stage

There are existing residential and commercial developments close by, along with the multiple permissions remaining in place. All of the current developments will generate similar waste types during their operational phases. Authorised waste contractors will be required to collect waste materials segregated, at a minimum, into recyclables, organic waste and non-recyclables. An increased density of development in the area is likely improve the efficiencies of waste collections in the area.

Other developments in the area will be required to manage waste in compliance with national and local legislation, policies and plans which will minimise / mitigate any potential cumulative impacts associated with waste generation and waste management. As such the effect will be a **long-term, imperceptible and neutral**.

#### 14.5.4.3 Do-Nothing Impact

If the proposed development was not to go ahead (i.e. in the Do-Nothing scenario) there would be no demolition, excavation or construction at this site. Current operational waste would continue to be generated at the same levels. There would, therefore, be a neutral effect on the environment in terms of waste.

### 14.6 MITIGATION MEASURES (AMELIORATIVE, REMEDIAL OR REDUCTIVE MEASURES)

#### 14.6.1 Dublin Central Masterplan

This section outlines the measures that will be employed in order to reduce the amount of waste produced, manage the wastes generated responsibly and handle the waste in such a manner as to minimise the effects on the environment.

##### 14.6.1.1 Construction Stage

As previously stated, a project specific RWMP has been prepared in line with the requirements of the requirements of The EPA, Best Practice Guidelines for the Preparation of Resource and Waste Management Plans for Construction & Demolition Projects' (2021) and the Best Practice Guidelines for the Preparation of Waste Management Plans for Construction and Demolition Projects (DoEHLG, 2006) and is included as Appendix 14.1. The mitigation measures outlined in the RWMP will be implemented in full and form part of mitigation strategy for the site. The mitigation measures presented in this RWMP will ensure effective waste management and minimisation, reuse, recycling, recovery and disposal of waste material generated during the excavation and construction phases of the proposed development.

Prior to commencement, the appointed Contractor(s) will be required to refine / update the RWMP (Appendix 14.1) in agreement with DCC and in compliance with any planning conditions, or submit an addendum to the RWMP to DCC, detailing specific measures to minimise waste generation and resource consumption, design for maintenance and replacement and provide details of the proposed waste contractors and destinations of each waste stream.

The Contractor will be required to fully implement and update the RWMP throughout the duration of the proposed construction and demolition phases.

A quantity of soil, stone, silt, sand and clay which will need to be excavated to facilitate the Proposed Development. Correct classification and segregation of the excavated material is required to ensure that any potentially contaminated materials are identified and handled in a way that will not impact negatively on workers as well as on water and soil environments, both on and off-site.

In addition, the following mitigation measures will be implemented: -

- Building materials will be chosen with an aim to 'design out waste'.
- On-site segregation of waste materials will be carried out to increase opportunities for off-site reuse, recycling and recovery. The following waste types, at a minimum, will be segregated: -
  - Concrete rubble (including ceramics, tiles and bricks).
  - Plasterboard.
  - Metals.
  - Glass.
  - Timber.
- Left over materials (e.g. timber off-cuts, broken concrete blocks / bricks) and any suitable construction materials shall be re-used on-site, where possible.
- All waste materials will be stored in skips or other suitable receptacles in designated areas of the site.
- Any hazardous wastes generated (such as chemicals, solvents, glues, fuels, oils) will also be segregated and will be stored in appropriate receptacles (in suitably bunded areas, where required).
- A Resource Manager will be appointed by the main Contractor(s) to ensure effective management of waste during the demolition, excavation and construction works.
- All construction staff will be provided with training regarding the waste management procedures.
- All waste leaving site will be reused, recycled or recovered, where possible, to avoid material designated for disposal.
- All waste leaving the site will be transported by suitably permitted contractors and taken to suitably registered, permitted or licenced facilities.
- All waste leaving the site will be recorded and copies of relevant documentation maintained.

Nearby sites requiring clean fill material will be contacted to investigate reuse opportunities for clean and inert material, if required. If any of the material is to be reused on another site as by-product (and not as a waste), this will be done in accordance with Article 27 of the EC (Waste Directive) Regulations (2011). EPA approval will be obtained prior to moving material as a by-product. However, it is not currently anticipated that Article 27 will be used.

These mitigation measures will ensure that the waste arising from the construction phase of the Proposed Development is dealt with in compliance with the provisions of the Waste Management Act 1996, as amended, associated Regulations and the Litter Pollution Act 1997, the EMR Waste Management Plan 2015 – 2021, the draft NWMPCE (2023). It will also ensure optimum levels of waste



reduction, reuse, recycling and recovery are achieved and will promote more sustainable consumption of resources.

#### 14.6.1.2 Operational Stage

As previously stated, a project specific OWMP has been prepared and is included as Appendix 14.2.

- The Operator / Facilities Manager of the masterplan during the operational phase will be responsible for ensuring – allocating personnel and resources, as needed – the ongoing implementation of this OWMP, ensuring a high level of recycling, reuse and recovery.

In addition, the following mitigation measures will be implemented: -

- The Operator / Facilities Manager will ensure on-Site segregation of all waste materials into appropriate categories, including (but not limited to): -
  - Organic waste.
  - Dry Mixed Recyclables.
  - Mixed Non-Recyclable Waste.
  - Glass.
  - Waste electrical and electronic equipment (WEEE).
  - Batteries (non-hazardous and hazardous).
  - Cooking oil.
  - Light bulbs.
  - Cleaning chemicals (pesticides, paints, adhesives, resins, detergents, etc.).
  - Furniture (and from time to time other bulky waste).
  - Abandoned bicycles.
- The Operator / Facilities Manager will ensure that all waste materials will be stored in colour coded bins or other suitable receptacles in designated, easily accessible locations. Bins will be clearly identified with the approved waste type to ensure there is no cross contamination of waste materials.
- The Operator / Facilities Manager will ensure that all waste collected from the Site of the Proposed Development will be reused, recycled or recovered, where possible, with the exception of those waste streams where appropriate facilities are currently not available.
- The Operator / Facilities Manager will ensure that all waste leaving the Site will be transported by suitable permitted contractors and taken to suitably registered, permitted or licensed facilities.

These mitigation measures will ensure the waste arising from the Proposed Development during the operational phase is dealt with in compliance with the provisions of the Waste Management Act 1996, as amended, associated Regulations, the Litter Pollution Act 1997, the EMR Waste Management Plan 2015 – 2021, the DCC Waste Management (Storage, Presentation and Segregation of Household and Commercial Waste) Bye-Laws 2018 and the draft NWMPCE (2023). It will also ensure optimum levels of waste reduction, reuse, recycling and recovery are achieved.

### 14.6.2 Proposed Development – Site 2

#### 14.6.2.1 Construction Stage

As previously stated, a project specific RWMP has been prepared in line with the requirements of the requirements of The EPA, Best Practice Guidelines for the Preparation of Resource and Waste Management Plans for Construction & Demolition Projects' (2021) and the Best Practice Guidelines for the Preparation of Waste Management Plans for Construction and Demolition Projects (DoEHLG, 2006) and is included as Appendix 14.1. The mitigation measures outlined in the RWMP will be

implemented in full and form part of mitigation strategy for the site. The mitigation measures presented in this RWMP will ensure effective waste management and minimisation, reuse, recycling, recovery and disposal of waste material generated during the excavation and construction phases of the proposed development.

Prior to commencement, the appointed Contractor(s) will be required to refine / update the RWMP (Appendix 14.1) in agreement with DCC and in compliance with any planning conditions, or submit an addendum to the RWMP to DCC, detailing specific measures to minimise waste generation and resource consumption, design for maintenance and replacement and provide details of the proposed waste contractors and destinations of each waste stream.

The Contractor will be required to fully implement and update the RWMP throughout the duration of the proposed construction and demolition phases.

A quantity of soil, stone, silt, sand and clay which will need to be excavated to facilitate the Proposed Development. Correct classification and segregation of the excavated material is required to ensure that any potentially contaminated materials are identified and handled in a way that will not impact negatively on workers as well as on water and soil environments, both on and off-site.

In addition, the following mitigation measures will be implemented: -

- Building materials will be chosen with an aim to 'design out waste'.
- On-site segregation of waste materials will be carried out to increase opportunities for off-site reuse, recycling and recovery. The following waste types, at a minimum, will be segregated: -
  - Concrete rubble (including ceramics, tiles and bricks).
  - Plasterboard.
  - Metals.
  - Glass.
  - Timber.
- Left over materials (e.g. timber off-cuts, broken concrete blocks / bricks) and any suitable construction materials shall be re-used on-site, where possible.
- All waste materials will be stored in skips or other suitable receptacles in designated areas of the site.
- Any hazardous wastes generated (such as chemicals, solvents, glues, fuels, oils) will also be segregated and will be stored in appropriate receptacles (in suitably bunded areas, where required).
- A Resource Manager will be appointed by the main Contractor(s) to ensure effective management of waste during the demolition, excavation and construction works.
- All construction staff will be provided with training regarding the waste management procedures.
- All waste leaving site will be reused, recycled or recovered, where possible, to avoid material designated for disposal.
- All waste leaving the site will be transported by suitably permitted contractors and taken to suitably registered, permitted or licenced facilities.
- All waste leaving the site will be recorded and copies of relevant documentation maintained.

Nearby sites requiring clean fill material will be contacted to investigate reuse opportunities for clean and inert material, if required. If any of the material is to be reused on another site as by-product (and not as a waste), this will be done in accordance with Article 27 of the EC (Waste Directive) Regulations (2011). EPA approval will be obtained prior to moving material as a by-product. However, it is not currently anticipated that Article 27 will be used.

These mitigation measures will ensure that the waste arising from the construction phase of the Proposed Development is dealt with in compliance with the provisions of the Waste Management Act 1996, as amended, associated Regulations and the Litter Pollution Act 1997, the EMR Waste Management Plan 2015 – 2021 and the draft NWMPCE (2023). It will also ensure optimum levels of waste reduction, reuse, recycling and recovery are achieved and will promote more sustainable consumption of resources.

#### 14.6.2.2 Operational Stage

As previously stated, a project specific OWMP has been prepared and is included as Appendix 14.2.

- The Operator / Facilities Manager of the Site 2 during the operational phase will be responsible for ensuring – allocating personnel and resources, as needed – the ongoing implementation of this OWMP, ensuring a high level of recycling, reuse and recovery.

In addition, the following mitigation measures will be implemented: -

- The Operator / Facilities Manager will ensure on-Site segregation of all waste materials into appropriate categories, including (but not limited to): -
  - Organic waste.
  - Dry Mixed Recyclables.
  - Mixed Non-Recyclable Waste.
  - Glass.
  - Waste electrical and electronic equipment (WEEE).
  - Batteries (non-hazardous and hazardous).
  - Cooking oil.
  - Light bulbs.
  - Cleaning chemicals (pesticides, paints, adhesives, resins, detergents, etc.).
  - Furniture (and from time to time other bulky waste).
  - Abandoned bicycles.
- The Operator / Facilities Manager will ensure that all waste materials will be stored in colour coded bins or other suitable receptacles in designated, easily accessible locations. Bins will be clearly identified with the approved waste type to ensure there is no cross contamination of waste materials;
- The Operator / Facilities Manager will ensure that all waste collected from the Site of the Proposed Development will be reused, recycled or recovered, where possible, with the exception of those waste streams where appropriate facilities are currently not available; and
- The Operator / Facilities Manager will ensure that all waste leaving the Site will be transported by suitable permitted contractors and taken to suitably registered, permitted or licensed facilities.

These mitigation measures will ensure the waste arising from the Proposed Development during the operational phase is dealt with in compliance with the provisions of the Waste Management Act 1996, as amended, associated Regulations, the Litter Pollution Act 1997, the EMR Waste Management Plan 2015 – 2021, the DCC Waste Management (Storage, Presentation and Segregation of Household and Commercial Waste) Bye-Laws 2018 and the draft NWMPCE (2023). It will also ensure optimum levels of waste reduction, reuse, recycling and recovery are achieved.

### 14.6.3 Proposed Development – No. 61 O'Connell Street Upper

#### 14.6.3.1 Construction Stage

As previously stated, a project specific RWMP has been prepared in line with the requirements of the requirements of The EPA, Best Practice Guidelines for the Preparation of Resource and Waste Management Plans for Construction & Demolition Projects' (2021) and the Best Practice Guidelines for the Preparation of Waste Management Plans for Construction and Demolition Projects (DoEHLG, 2006) and is included as Appendix 14.1. The mitigation measures outlined in the RWMP will be implemented in full and form part of mitigation strategy for the site. The mitigation measures presented in this RWMP will ensure effective waste management and minimisation, reuse, recycling, recovery and disposal of waste material generated during the excavation and construction phases of the proposed development.

Prior to commencement, the appointed Contractor(s) will be required to refine / update the RWMP (Appendix 14.1) in agreement with DCC and in compliance with any planning conditions, or submit an addendum to the RWMP to DCC, detailing specific measures to minimise waste generation and resource consumption, design for maintenance and replacement and provide details of the proposed waste contractors and destinations of each waste stream.

The Contractor will be required to fully implement and update the RWMP throughout the duration of the proposed construction and demolition phases.

A quantity of soil, stone, silt, sand and clay which will need to be excavated to facilitate the Proposed Development. Correct classification and segregation of the excavated material is required to ensure that any potentially contaminated materials are identified and handled in a way that will not impact negatively on workers as well as on water and soil environments, both on and off-site.

In addition, the following mitigation measures will be implemented: -

- Building materials will be chosen with an aim to 'design out waste'.
- On-site segregation of waste materials will be carried out to increase opportunities for off-site reuse, recycling and recovery. The following waste types, at a minimum, will be segregated: -
  - Concrete rubble (including ceramics, tiles and bricks).
  - Plasterboard.
  - Metals.
  - Glass.
  - Timber.
- Left over materials (e.g. timber off-cuts, broken concrete blocks / bricks) and any suitable construction materials shall be re-used on-site, where possible.
- All waste materials will be stored in skips or other suitable receptacles in designated areas of the site.
- Any hazardous wastes generated (such as chemicals, solvents, glues, fuels, oils) will also be segregated and will be stored in appropriate receptacles (in suitably bunded areas, where required).
- A Resource Manager will be appointed by the main Contractor(s) to ensure effective management of waste during the demolition, excavation and construction works.
- All construction staff will be provided with training regarding the waste management procedures.
- All waste leaving site will be reused, recycled or recovered, where possible, to avoid material designated for disposal.
- All waste leaving the site will be transported by suitably permitted contractors and taken to suitably registered, permitted or licenced facilities.

- All waste leaving the site will be recorded and copies of relevant documentation maintained.

Nearby sites requiring clean fill material will be contacted to investigate reuse opportunities for clean and inert material, if required. If any of the material is to be reused on another site as by-product (and not as a waste), this will be done in accordance with Article 27 of the EC (Waste Directive) Regulations (2011). EPA approval will be obtained prior to moving material as a by-product. However, it is not currently anticipated that Article 27 will be used.

These mitigation measures will ensure that the waste arising from the construction phase of the Proposed Development is dealt with in compliance with the provisions of the Waste Management Act 1996, as amended, associated Regulations and the Litter Pollution Act 1997, the EMR Waste Management Plan 2015 – 2021, and the draft NWMPCE (2023). It will also ensure optimum levels of waste reduction, reuse, recycling and recovery are achieved and will promote more sustainable consumption of resources.

#### 14.6.3.2 Operational Stage

As previously stated, a project specific OWMP has been prepared and is included as Appendix 14.2.

- The Operator / Facilities Manager of 61 O'Connell Street Upper during the operational phase will be responsible for ensuring – allocating personnel and resources, as needed – the ongoing implementation of this OWMP, ensuring a high level of recycling, reuse and recovery.

In addition, the following mitigation measures will be implemented: -

- The Operator / Facilities Manager will ensure on-Site segregation of all waste materials into appropriate categories, including (but not limited to): -
  - Organic waste.
  - Dry Mixed Recyclables.
  - Mixed Non-Recyclable Waste.
  - Glass.
  - Waste electrical and electronic equipment (WEEE).
  - Batteries (non-hazardous and hazardous).
  - Cooking oil.
  - Light bulbs.
  - Cleaning chemicals (pesticides, paints, adhesives, resins, detergents, etc.).
  - Furniture (and from time to time other bulky waste).
  - Abandoned bicycles.
- The Operator / Facilities Manager will ensure that all waste materials will be stored in colour coded bins or other suitable receptacles in designated, easily accessible locations. Bins will be clearly identified with the approved waste type to ensure there is no cross contamination of waste materials;
- The Operator / Facilities Manager will ensure that all waste collected from the Site of the Proposed Development will be reused, recycled or recovered, where possible, with the exception of those waste streams where appropriate facilities are currently not available; and
- The Operator / Facilities Manager will ensure that all waste leaving the Site will be transported by suitable permitted contractors and taken to suitably registered, permitted or licensed facilities.

These mitigation measures will ensure the waste arising from the Proposed Development during the operational phase is dealt with in compliance with the provisions of the Waste Management Act 1996, as amended, associated Regulations, the Litter Pollution Act 1997, the EMR Waste Management Plan 2015 – 2021, the DCC Waste Management (Storage, Presentation and Segregation of Household and Commercial Waste) Bye-Laws 2018 and the draft NWMPCE (2023). It will also ensure optimum levels of waste reduction, reuse, recycling and recovery are achieved.

## 14.7 RESIDUAL IMPACT

### 14.7.1 Dublin Central Masterplan

#### 14.7.1.1 Construction Stage

A carefully planned approach to waste management as set out in Section 14.6 and adherence to the RWMP during the demolition, excavation and construction phase will ensure that the effect on the environment will be short-term, imperceptible and neutral.

#### 14.7.1.2 Operational Stage

During the operational phase, a structured approach to waste management as set out in Section 14.6 and adherence to the OWMP will promote resource efficiency and waste minimisation. Provided the mitigation measures are implemented and a high rate of reuse, recycling and recovery is achieved, the predicted effect of the operational phase on the environment will be long-term, imperceptible and neutral.

#### 14.7.1.3 Worst Case Impact

In a worst-case scenario, if no mitigation measures found in section 14.6 are followed, poor onsite waste management, non-permitted waste contractors or unauthorised waste facilities could give rise to inappropriate management of waste offsite and result in negative environmental impacts or pollution as shown in section 14.5.

### 14.7.2 Proposed Development – Site 2

#### 14.7.2.1 Construction Stage

A carefully planned approach to waste management as set out in Section 14.6 and adherence to the RWMP during the demolition, excavation and construction phase will ensure that the effect on the environment will be **short-term, imperceptible and neutral**.

#### 14.7.2.2 Operational Stage

During the operational phase, a structured approach to waste management as set out in Section 14.6 and adherence to the OWMP will promote resource efficiency and waste minimisation. Provided the mitigation measures are implemented and a high rate of reuse, recycling and recovery is achieved, the predicted effect of the operational phase on the environment will be **long-term, imperceptible and neutral**.

#### 14.7.2.3 Worst Case Impact

In a worst-case scenario, if no mitigation measures found in section 14.6 are followed, poor onsite waste management, non-permitted waste contractors or unauthorised waste facilities could give rise to inappropriate management of waste offsite and result in negative environmental impacts or pollution as shown in section 14.5.

### 14.7.3 Proposed Development – No. 61 O'Connell Street Upper

#### 14.7.3.1 Construction Stage

A carefully planned approach to waste management as set out in Section 14.6 and adherence to the RWMP during the demolition, excavation and construction phase will ensure that the effect on the environment will be **short-term, imperceptible and neutral**.

#### 14.7.3.2 Operational Stage

During the operational phase, a structured approach to waste management as set out in Section 14.6 and adherence to the OWMP will promote resource efficiency and waste minimisation. Provided the mitigation measures are implemented and a high rate of reuse, recycling and recovery is achieved, the predicted effect of the operational phase on the environment will be **long-term, imperceptible and neutral**.

#### 14.7.3.3 Worst Case Impact

In a worst-case scenario, if no mitigation measures found in section 14.6 are followed, poor onsite waste management, non-permitted waste contractors or unauthorised waste facilities could give rise to inappropriate management of waste offsite and result in negative environmental impacts or pollution as shown in section 14.5.

### 14.7.4 Cumulative

#### 14.7.4.1 Construction Stage

During the demolition, excavation and construction phase waste management will be carefully managed as set out in Section 14.6 and the RWMP. Other developments in the area will be required to manage waste in compliance with national and local legislation, policies and plans which will minimise / mitigate any potential cumulative impacts associated with waste generation and waste management. As such it is considered that the cumulative effect relating to waste management will be **short-term, imperceptible and neutral**.

#### 14.7.4.2 Operational Stage

During the Operational phase waste management will be carefully managed as set out in Section 14.9 and the OWMP. Other developments in the area will be required to manage waste in compliance with national and local legislation, policies and plans which will minimise / mitigate any potential cumulative impacts associated with waste generation and waste management. As such it is considered that the cumulative effect relating to waste management will be **long-term, imperceptible and neutral**.

#### 14.7.4.3 Worst Case Impact

In a worst-case scenario, if no mitigation measures found in section 14.6 are followed, poor onsite waste management, non-permitted waste contractors or unauthorised waste facilities could give rise to inappropriate management of waste offsite and result in negative environmental impacts or pollution as shown in section 14.5.

## **14.8 MONITORING**

### **14.8.1 Dublin Central Masterplan**

The management of waste during the demolition, excavation and construction phase should be monitored to ensure compliance with relevant local authority requirements, and effective implementation of the RWMP including maintenance of waste documentation.

The management of waste during the operational phase should be monitored to ensure effective implementation of the OWMP by the building management company and the nominated waste contractor(s).

#### **14.8.1.1 Construction Stage**

The objective of setting targets for waste management is only achieved if the actual waste generation volumes are calculated and compared. This is particularly important during the demolition, excavation and construction phase where there is a potential for waste management to become secondary to progress and meeting construction schedule targets. The RWMP specifies the need for a resource manager to be appointed who will have responsibility to monitor the actual waste volumes being generated and to ensure that contractors and sub-contractors are segregating waste as required. Where targets are not being met, the waste manager should identify the reasons for targets not being achieved and work to resolve any issues. Recording of waste generation during the project will enable better management of waste contractor requirements and identify trends. The data should be maintained to advise on future projects.

#### **14.8.1.2 Operational Stage**

During the operational phase, waste generation volumes should be monitored against the predicted waste volumes outlined in Table 14.3. There may be opportunities to reduce the number of bins, waste collections and equipment required in the WSAs where estimates have been too conservative. Reductions in bin and equipment requirements will improve efficiency and reduce waste contractor costs.

Waste legislation should also be consulted on a regular basis in case of any changes which may impact on waste management procedures.

### **14.8.2 Proposed Development – Site 2**

The management of waste during the demolition, excavation and construction phase should be monitored to ensure compliance with relevant local authority requirements, and effective implementation of the RWMP including maintenance of waste documentation.

The management of waste during the operational phase should be monitored to ensure effective implementation of the OWMP by the building management company and the nominated waste contractor(s).

#### **14.8.2.1 Construction Stage**

The objective of setting targets for waste management is only achieved if the actual waste generation volumes are calculated and compared. This is particularly important during the demolition, excavation and construction phase where there is a potential for waste management to become secondary to progress and meeting construction schedule targets.

The RWMP specifies the need for a waste manager to be appointed who will have responsibility to monitor the actual waste volumes being generated and to ensure that contractors and sub-contractors are segregating waste as required. Where targets are not being met, the waste manager should identify the reasons for targets not being achieved and work to resolve any issues. Recording



of waste generation during the project will enable better management of waste contractor requirements and identify trends. The data should be maintained to advise on future projects.

#### **14.8.2.2 Operational Stage**

During the operational phase, waste generation volumes should be monitored against the predicted waste volumes outlined in Table 14.6. There may be opportunities to reduce the number of bins, waste collections and equipment required in the WSAs where estimates have been too conservative. Reductions in bin and equipment requirements will improve efficiency and reduce waste contractor costs.

Waste legislation should also be consulted on a regular basis in case of any changes which may impact on waste management procedures.

#### **14.8.3 Proposed Development – No. 61 O'Connell Street Upper**

The management of waste during the demolition, excavation and construction phase should be monitored to ensure compliance with relevant local authority requirements, and effective implementation of the RWMP including maintenance of waste documentation.

The management of waste during the operational phase should be monitored to ensure effective implementation of the OWMP by the building management company and the nominated waste contractor(s).

##### **14.8.3.1 Construction Stage**

The objective of setting targets for waste management is only achieved if the actual waste generation volumes are calculated and compared. This is particularly important during the demolition, excavation and construction phase where there is a potential for waste management to become secondary to progress and meeting construction schedule targets. The RWMP specifies the need for a waste manager to be appointed who will have responsibility to monitor the actual waste volumes being generated and to ensure that contractors and sub-contractors are segregating waste as required. Where targets are not being met, the waste manager should identify the reasons for targets not being achieved and work to resolve any issues. Recording of waste generation during the project will enable better management of waste contractor requirements and identify trends. The data should be maintained to advise on future projects.

##### **14.8.3.2 Operational Stage**

During the operational phase, waste generation volumes should be monitored against the predicted waste volumes outlined in Table 14.8. There may be opportunities to reduce the number of bins, waste collections and equipment required in the WSAs where estimates have been too conservative. Reductions in bin and equipment requirements will improve efficiency and reduce waste contractor costs.

Waste legislation should also be consulted on a regular basis in case of any changes which may impact on waste management procedures.

### **14.9 REINSTATEMENT**

#### **14.9.1 Dublin Central Masterplan**

In the event that the Proposed Development is discontinued, there is not likely to be any significant impacts on waste management at the site.

### 14.9.2 Proposed Development – Site 2 & No. 61 O'Connell Street Upper

In the event that the Proposed Development is discontinued, there is not likely to be any significant impacts on waste management at the site.

### 14.10 DIFFICULTIES ENCOUNTERED

Until final materials and detailed construction methodologies have been confirmed, it is difficult to predict with a high level of accuracy the construction waste that will be generated from the proposed works as the exact materials and quantities may be subject to some degree of change and variation during the construction process.

While it is possible to initially select a licensed waste facility for soil disposal, there is potential to encounter contaminated material or material with naturally occurring variations in minerals and chemicals that necessitates sending it to a different suitably licensed facility. The sampling and testing carried out in the Site Investigation (SI) process provides spot samples, and further testing is required during the excavation process, as the true condition of all excavated materials cannot be ascertained with certainty until this is undertaken.

There is a number of licensed, permitted and registered waste facilities in the Dublin region and in the surrounding counties. However, these sites may not be available for use when required or may be limited by the waste contractor selected to service the development in the appropriate phase. In addition, there is potential for more suitably placed waste facilities or recovery facilities to become operational in the future which may be more beneficial from an environmental perspective.

Licensed waste facilities have annual limitations on material that they can import as part of their license agreements. Because of this it would not make it possible to commit to a singular specific receiving facility as it is not available throughout the excavation phase. It would not be viable to cease a development and wait until a receiving facilities annual receiving quotas are reset. In a normal development waste facilities would switch between facilities with available capacity.

The ultimate selection of waste contractors and waste facilities would be subject to appropriate selection criteria proximity, competency, capacity, serviceability, and cost.

## 15 CULTURAL HERITAGE (ARCHITECTURAL)

### 15.1 Introduction

#### 15.1.1 Background

Molloy & Associates were engaged as architectural heritage consultants to identify, describe and assess the direct and indirect significant effects of the proposed development of the Dublin Central Masterplan Area on the site's inherent and enclosing architectural heritage.

The Dublin Central Masterplan Area is divided into six distinct sites intended to be developed by Dublin Central GP Limited, who acquired the lands in 2016, with the benefit of an inherited permission to develop the site under DCC Reg. Ref. 2479/08/ An Bord Pleanála Reg. Ref. PL29N.232347

The development of design proposals for each of the six sites (Sites 1, 2AB, 2C, 3, 4 and 5) within the Dublin Central Masterplan Area was based on a masterplan designed by Acme. The masterplan area broadly reflects the red line boundary of the permitted development, with some notable deviations; the State ownership of Nos 14-17 (and 18a) Moore Street, the addition of Patrick Conway's Public House at No.70 Parnell Street and the omission of Nos 59 (part) and No.60 O'Connell Street.

The scope of this section of the Environmental Impact Assessment Report focuses principally on the proposed development of Site 2 (combining Sites 2AB and 2C comprising Nos.43-59 (in part) O'Connell Street), together with No.61 O'Connell Street, yet broadly considers their development in context with the intended future development of Sites 1, 3, 4 and 5.

The subject Site 2 (2AB and 2C) is bounded to the north by Site 1 (made up of the entirety of the boundary shared with No.42 O'Connell Street), to the east by O'Connell Street, to the west by Moore Lane and to the south by O'Connell Street buildings outside the site and Henry Place.

Sites 3, 4 and 5 are bounded by Henry Street to the south, Moore Lane and Henry Place to the east, Moore Street to the west and O'Rahilly Parade to the north.

Site 1 in turn is bounded to the north by Parnell Street, to the east by O'Connell Street, to the west by Moore Lane and to the south by Site 2C. Whilst it is proposed to submit a planning application for the sensitive redevelopment of a protected structure at No.42 O'Connell Street in the near future, the remainder of the Site 1 scheme is at an early design development stage.

The mixed-use development of the combined sites proposes the introduction of commercial offices, retail, hotel, residential accommodation, residential support and amenities encompassing selected and conserved retained structures within an improved public realm. In June 2021, three separate applications for Site 3 (Planning Reference Number 2861/21), Site 4 (Planning Reference Number 2862/21) and Site 5 (Planning Reference Number 2863/21) were lodged with Dublin City Council together with a EIAR assessing the cumulative impacts of all three sites. Dublin City Council made decisions to grant permissions. Those decisions are under appeal to An Bord Pleanála (Planning Reference Nos ABP-312603-22, ABP-312642-22 and ABP-313947-22).

The delivery of all six sites, together with extensive sections of enclosing public realm in the ownership of the applicant, will realise the all-encompassing ambition of the masterplan.

Site 2 proposals accommodate a structural box beneath ground floor level that has been designed to accommodate the independent construction and operation of the planned O'Connell Street MetroLink Station by Transport Infrastructure Ireland (TII), including provision of the structural envelope and co-ordinated voids to accommodate station entrances, ventilation and fire escape shafts through this part of the proposed development. These MetroLink Enabling Works (MEW) ensure that the Dublin Central proposed development is structurally independent of, and not prejudicial to, the MetroLink project. This application does not include any request for permission for railway works, the use of railway works or the operation of a railway. The MetroLink project will be the subject of a separate application for Railway Order to be made by TII. In the event that MetroLink project is delayed or does not proceed, the Dublin Central proposed development can be completed, occupied and used regardless. The proposed Dublin Central development is not dependent on the MetroLink project. Whilst the MetroLink project is not the subject of this EIAR, this chapter broadly considers the intended provision of MEW under Nos.43-59 O'Connell Street (in part), as presented in

a report entitled 'O'Connell Street Options Assessment Briefing Note', dated August 2022, which provides an assessment and rationale by TII for locating a station (the proposed MetroLink O'Connell Street station) on this site. The report acknowledges known architectural heritage impacts arising from the various station options assessed, resulting in the proposed location and design.



**Figure 15.1.1:** The Proposed Development (Site 2 and No. 61 O'Connell Street) shown within the context of the Dublin Central Masterplan.

Please note, that in the interest of clarity, commentary on the inclusion of a vacant plot at No.14 Moore Lane within the Site 2 development is excluded from this assessment as it is already referred to under Site 5 descriptions.

#### **Note on adopted Dublin City Development Plan 2022-2028**

At the time of writing of the original EIAR chapter in 2022, both the extant 2016-2022 City Development Plan and Draft 2022-2028 City Development Plan were referred to. In June 2023, in response to a request for further information in respect of planning applications for the development of Site 2 and No.61 O'Connell Street, the report's content was updated to focus to a greater extent on policies contained in the adopted Dublin City Development Plan 2022-2028, with the previous 2016-2022 Plan referenced where required.

### 15.1.2 Purpose of the Assessment

Chapter 15 of this EIAR qualifies existing inter-relationships between extant fabric and assesses potential impacts in respect of setting and character arising from the combined development of Site 2 (Sites 2AB and 2C).

It identifies buildings and other features of heritage significance within the masterplan area as part of the preparation of an overarching dedicated Dublin Central Masterplan Area Conservation Management Plan. Detailed inventories of each building and plot in Site 2 are submitted with the planning applications as a baseline for establishing architectural heritage impacts arising from its development. Correspondingly detailed inventories for building fabric in Sites 1, 3, 4 and 5 has or will accompany their existing /future planning applications.

The Chapter also refers to architectural fabric afforded statutory protection within the environs as a basis for assessment of wider architectural heritage impacts of works peripheral to adjoining protected structures and extending into the public realm.

The assessment further takes into account the partial position of the masterplan site within a designated Architectural Conservation Area and reviews potential impacts the masterplan development may present for its character.

### 15.1.3 Architectural Heritage Assessment team

This assessment was conducted by Molloy & Associates Conservation Architects, collectively authored by the following consultants:

#### Archive and field research/ recording and documentation

Sunni Goodson BA, Msc Conservation of Historic Buildings, HNC Interior Designer

#### Conservation architects

Maol Íosa Molloy B.Arch., BSc.Arch., MUBC, Dip.Arb., MRAI, RIBA, MCI.Arb., Grade 1 Conservation Architect

Michael O'Boyle B.Arch., MUBC, MRAI, Grade 1 Conservation Architect

Shelley O'Donovan B.Arch., PGDip., MRAI, RIBA accredited Conservation Architect, Grade 2 Conservation Architect

External consultants are as follows:

#### Historic urban landscape assessment

Dr. John Olley BEng, PhD

#### Forensic archaeologist

Dr. Jason Bolton MA, MIAI, PhD

## 15.2 Assessment Methodology

### 15.2.1 General Methodology

The assessment of any potential architectural heritage effect of the development of Site 2 in terms of Quality, Significance, Magnitude, Probability, Duration, and Types are explored within this Chapter to accord with requirements in the EIA Directive (2011/92/EU) as amended by Directive 2014/52/EU, the Planning and Development Act, 2000 (as amended), the Planning and Development Regulations, 2001 (as amended), including as amended by S.I. No. 296 of 2018, European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018.

The EPA Guidelines (May 2022), cite on page 47, *“the description of the likely significant effects on the [environmental] factors should cover the direct effects and any indirect, secondary, cumulative, transboundary, short-term, medium-term and long-term, permanent and temporary, positive and*

*negative effects of the project.*" The description and criteria for rating impacts and effects are thus outlined in greater detail in the following sections of this report.

The chapter in summarising the identification and categorisation of significance of existing buildings/plots within the masterplan area as expanded in appendices attached to Architectural Heritage Impact Assessments submitted with the planning applications for Site 2 and No.61 O'Connell Street, describes interactions of the proposed masterplan development with its receiving architectural heritage environment and comments on potential impacts arising from those interactions.

It references in its assessment method, the Department of the Environment, Community and Local Government (2018) Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessments. It also has been written cognisant in particular of Appendix B of the Architectural Heritage Protection Guidelines for Planning Authorities (Department of Arts, Heritage, and the Gaeltacht, 2011). As part of the preparation of the subject assessment, buildings and open spaces within the masterplan area were inspected and recorded in the period between June 2020 and June 2022.

The research process adopted a robust strategy for building recording and physical investigation to scientifically establish the origin of building fabric insofar as possible. Archival research referencing known architectural, historical and cartographic resources was aligned with measured survey drawings and scans. Detailed land surveys were measured against earlier cartographic records to trace plot developments and inform detailed chronological assessments and inventories specific for each building and plot, which are in turn appended with Architectural Heritage Impact Assessment reports accompanying each planning submission, informing the parameters of the proposed masterplan development.

The resulting records form a body of work central to an understanding of the value of existing structures on the masterplan area and how it's reimagining might sit within its important urban context.

A Statement of Significance for each structure, building on baseline documentation, is contained in each application and summarised in Appendix A2 of the Dublin Central Masterplan Area Conservation Management Plan, see 15.2.2. below.

The chapter includes details of mitigation measures adopted during the design development of the proposed scheme to minimise impacts together with conservation-led recommendations to be adopted in the implementation of the proposed masterplan development. These measures and recommendations reflecting established good conservation practice are informed by national guidelines and international conservation charters.

### **15.2.2 Dublin Central Masterplan Area Conservation Management Plan**

In recognition of the cultural and architectural complexity of the Dublin Central masterplan area, Molloy&Associates following their appointment in May 2020, sought to prepare a Conservation Management Plan (aligned with the boundaries of the masterplan area) to set site-specific objectives and recommended policies as a mechanism to frame its appropriate development.

Whilst not having a formal statutory basis, the Plan identifies specific characteristics of the masterplan area to an extent that was not addressed in the statutory mechanisms of either the Dublin City Development Plan 2016-2022 (current at the time of writing of the CMP) or O'Connell Street Architectural Conservation Area policies. Following review of the later City Development Plan 2022-2028, the scope of the CMP is considered aligned if not more expansive than the same updated policy.

As cited above, all buildings and plots within the masterplan area have been interrogated to inform a detailed appraisal of built fabric, as summarised in Appendix A2 of the Plan.

The concept of voluntarily commissioning a Plan for the masterplan area is an endorsement of a design intention to best reflect the character of the receiving environment in the careful retention of building fabric of interest and in converse facilitate the selection of buildings/ plots that can be sensitively redeveloped, with both conditions merging to generate diverse, but cohesive urbanism.

A Conservation Management Plan is an internationally recognised mechanism used to identify, quantify, and address, complex and sometimes conflicting demands, vulnerabilities and opportunities on buildings and sites of heritage value. In the instance of providing a baseline heritage narrative for the development of the masterplan design, it was deemed a fitting tool to frame an understanding of heritage complexities particular to the masterplan area.

In any Conservation Management Plan, three central issues are explored – What is the significance of the site? What are the vulnerabilities and threats facing the site? What policy recommendations should be adopted to mitigate or address these vulnerabilities and threats?

While an overarching masterplan concept preceded the preparation of the Dublin Central Masterplan Area Conservation Management Plan, the introduction of recommendations in the Plan helped refine the masterplan over the course of wider design team engagement.

The use of the standardised Conservation Management Plan methodology is thus valid as an impartial mechanism to interrogate conservation issues across the masterplan area, and was instrumental in the completion of the masterplan design process, with the resulting policies and recommendations providing a valuable baseline against which impacts of the proposed development can be and have been assessed.

Mindful of the interdependence between the masterplan and Conservation Management Plan, Chapter 15 should be read in conjunction with the Dublin Central Masterplan Area Conservation Management Plan, including its appendices. Assessment of impacts, recommendations and mitigation measures contained in this Chapter, are duly informed by the policies contained in the Plan.

### 15.2.3 References consulted

The architectural heritage assessment component of an EIAR examines the character and heritage significance of buildings and other structures within the masterplan area and in its immediate and wider receiving environs, anticipating potential impacts that the proposed development may present to these structures and places.

Primary sources to ascertain the historic development of the urban environment enclosing the masterplan area together with the chronological development of each individual plot, with findings in turn determining the significance of all structures include the following;

- Dublin Central Masterplan Area Conservation Management Plan and its appendices (Molloy&Associates Conservation Architects)
- Architectural Heritage Impact Assessment reports for Site 2 and No.61 O'Connell Street (Molloy&Associates Conservation Architects)
- Planning applications for Sites 3 (DCC Reg. Ref. 2861/21 – ABP Ref. ABP-312603-22), Site 4 (DCC Reg. Ref. 2862/21 21 – ABP Ref. ABP-312642-22) and Site 5 (DCC Reg. Ref. 2863/21 – ABP Ref. ABP-313947-22) which are the subject of separate applications

Definitive findings determined by relevant design team consultants were reviewed to corroborate architectural heritage-centric research and opinion, with mitigating measures informing the proposed design.

As such, this chapter should also be read in conjunction with related documents identified below, submitted with each planning application and referred to in other chapters of this EIAR: -

- Dublin Central Masterplan Design Statement (Acme)
- EIAR Chapter 12 - Landscape and Visual Impact (ARC Architectural Consultants Limited)
- EIAR Chapter 16 - Cultural Heritage - Archaeology (Courtney Deery Heritage Consultancy Ltd)
- Outline Construction & Demolition Management Plan – Masterplan (Waterman Moylan Consulting Engineers Limited)

- Dublin Central Site 2AB Architectural Design Statement
- ACME, Architects and Urban Designers
- RKD, Architects
- Dublin Central Site 2C Architectural Design Statement
- Grafton Architects
- Planning Application Report for Site 2
- Stephen Little & Associates, Planning Consultants
- Site 2 Landscape Planning Report
- Gross Max, Landscape Architects
- Site 2 Sunlight Shadow & Daylight Analysis Report
- BDP, Services and MEP
- Site 2AB Energy and Sustainability Statement
- BDP, Sustainability
- Dublin Central Site 2: Structural Report
- Waterman Structures Ltd., Structural Engineering
- Dublin Central Site 2: Outline Construction and Demolition Management Plan
- Waterman Moylan Consulting Engineers, Structural and Civil Engineering
- Dublin Central Site 2: Subterranean Construction Method Statement
- Waterman Moylan Consulting Engineers, Structural and Civil Engineering
- Dublin Central Site 2: Basement Impact Assessment
- Waterman Moylan Consulting Engineers, Structural and Civil Engineering
- Site 2 Lighting Planning Report
- Studio Fractal, Lighting Consultant
- 'Urban Baseline Study-Pedestrian impact assessment- Pedestrian movement forecast' for Dublin Central, Space Syntax
- Transport Infrastructure Ireland; 'O'Connell Street Options Assessment Briefing Note'

Multiple external sources were consulted but not limited to the following: -

- EIA Directive (2011/92/EU) as amended by Directive 2014/52/EU, the Planning and Development Act, 2000 (as amended), the Planning and Development Regulations, 2001 (as amended), including as amended by S.I. No. 296 of 2018, European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018
- Guidelines on the Information to be contained in Environmental Impact Statements Assessment Reports (EPA, 2022)
- Guidance on the preparation of Environmental Impact Assessment Report (Directive 2011/92/EU as amended by 2014/52/EU) (European Commission, 2017)
- Environmental Protection Agency (2003) Advice Notes for preparing Environmental Impact Assessment Reports (September 2003)
- Guidelines for Planning Authorities and An Bord Pleanála on carrying out environmental impact assessment (Department of Housing, Planning and Local Government , August 2018)



- Architectural Heritage (National Inventory) and Historic Monuments (Miscellaneous Provisions) Act, 2000; and the National Inventory of Architectural Heritage
- Planning and Development Act 2000, as amended
- Dublin City Development Plan 2016-2022 (superseded)
- Dublin City Development Plan 2022-2028
- Record of Protected Structures (Volume 4 of the 2022-2028 Dublin City Plan)
- Various historic cartographic sources of the masterplan area's chronological development

The rich historical contribution of the combined site to the changing character of the city arising from its connections with the urban battlefield of 1916 and 1922 merits adherence with the principles of certain international architectural heritage protection charters and standards in its redevelopment. Consideration under the following charters is integral to an assessment of impact, in their embedment with statutory policies and the Conservation Management Plan;

- Council of Europe Convention for the Protection of the Architectural Heritage of Europe (Granada) 1985, ratified by Ireland in 1991.
- ICOMOS Xi'an Declaration on the Conservation of the Setting of Heritage Structures, Sites and Areas, 2005.
- International Charter for the Conservation and Restoration of Monuments and Sites (Venice Charter 1964)
- Washington Charter for the Conservation of Historic Towns and Urban Areas (1987)
- The Burra Charter: the Australia ICOMOS Charter for Places of Cultural Significance (2013)

### 15.3 Receiving Environment

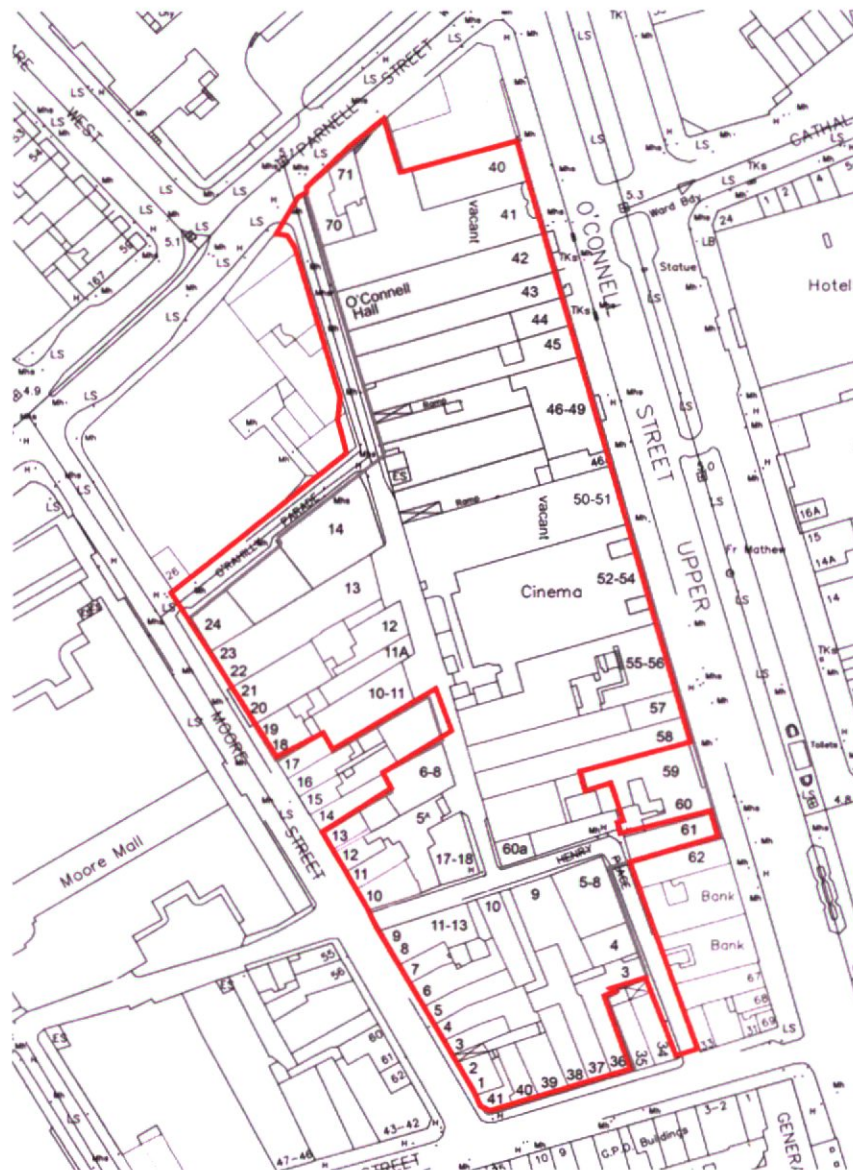
#### 15.3.1 Dublin Central Masterplan

##### 15.3.1.1 Context

The Dublin Central masterplan area comprises an expansive (c.2.2 Ha) site presenting a complex regeneration project, to be delivered in stages to overcome site and project constraints, the second stage of which is statutory consideration of Sites 2 and No.61 O'Connell Street. A first suite of planning submissions were made in May 2021 for Sites 3,4 and 5. For the purposes of this EIA chapter and as stated above, the development of Site 1 is not under detailed consideration given that it is still at design stage.

The site-wide cumulative masterplan has been prepared by Dublin Central GP Limited to set out the overall development vision, encompassing almost entirely of the regeneration of three city centre blocks. The area is bounded generally by O'Connell Street Upper and Henry Place to the east, Henry Street to the south, Moore Street to the west and O'Rahilly Parade and Parnell Street to the north. Moore Lane extends south from Parnell Street through the centre of the masterplan area, as far as its junction with Henry Place.

The masterplan site is of particular regional and national importance. Its links to the early-eighteenth century urban expansion of the capital city was central to the formation of its distinctive character and indeed the wider city.



**Figure 15.3.1:** Masterplan area boundary outlined (red line is for visual demarcation only).

The subsequent growth of industrial and retail uses in the introduction of purpose-built shops, markets, factories and associated warehouses all fused with domestic accommodation, encapsulated a vibrant, diverse city in the nineteenth century.

The historic events of 1916 and 1922 centred around this area, with the aftermath of both radically transforming buildings and terraced streetscapes in their subsequent reconstruction.

The architectural and functional importance of O'Connell Street as the national main street and the retail importance of Henry and Moore Streets were pivotal in the emergence and consolidation of commercial activity synonymous with the area's urban and building character. Severely impacted by gradual decline in the last decades of the twentieth century, the area now requires a response to collective and appropriate redevelopment that will balance its urban and historic character with viable uses, amenities and infrastructure.



**Figure 15.3.2:** Aerial photograph of the masterplan area (red line is for visual demarcation only).

#### 15.3.1.2 Chronological Development of the Masterplan Area

*Please refer to Appendix A3 of the Dublin Central Masterplan Area Conservation Management Plan (Appendix 15.1) for further detail on the evolution of the enclosing environs.*

##### ***Summary of the development of the city enclosing the masterplan area prior to and including the 17th Century***

During the medieval period the lands around what is now Moore Street and O'Connell Street were part of St Mary's Abbey. The abbey was located in the Capel Street area and owned substantial lands on the northern side of the River Liffey in Dublin as well as extensive properties elsewhere.

Thomas Phillips's map of the city, prepared in 1685, shows that the development on the northern side of the Liffey spread eastward as far as Liffey Street, with Abbey Street continuing eastward to meet the river. The map was prepared with west at the top and has been turned to orientate northward in the detail reproduced below. The streets seen on the northern side of the river were laid out by Humphrey Jervis in the 1670s.

With the dissolution of the abbey in the sixteenth century the property was correspondingly offered piecemeal to prosperous families loyal to the crown.

Lands to the east of the abbey came into the ownership of the Moore family – probably in the time of Queen Elizabeth, who granted the lands of Millionth Abbey to Sir Edward Moore<sup>1</sup> Moore's son, Sir Garret Moore, was elevated to the peerage as Baron Moore of Mellifont, subsequently Viscount Moore of Drogheda. Two generations later the third viscount, Henry Moore, was advanced to an earldom, as Earl of Drogheda.



Figure 15.3.3: Detail of Thomas Phillips's map of Dublin, 1685 (British Library)

#### ***Summary of the development of the masterplan area in the 18th Century***

The third Earl of Drogheda, also named Henry, suffered severe losses in the war of 1688-90. It may have been this that spurred the decision to develop the Dublin estates or it may have been seen as an appropriate move given the expansion of the population of the city in the years of peace following that war. Estimates of the population of the city suggest that it rose from 47,000 in 1695 to 75,000 in 1710 and 89,000 in 1715.<sup>2</sup> Whatever the reason, a substantial area was laid out for development in the opening years of the eighteenth century. From 1707 leases were granted of development sites along a grid of newly laid out streets, including Henry Street and Earl Street, as a continuation of Jervis's Mary Street, and an entirely new set of north-south streets to be known as Coles Lane, Moore Street, Prince Eugene Street, Drogheda Street and Marlborough Street. Also included were new east-west streets of modest size such as Melvill's Lane. Most of these names honoured the ground landlord – Henry, Moore, Earl, Drogheda, while Cole was his wife's family name. Marlborough Street and Prince

<sup>1</sup> Burke, 1830, p. 234

<sup>2</sup> Lennon, 2008, p. 10.