

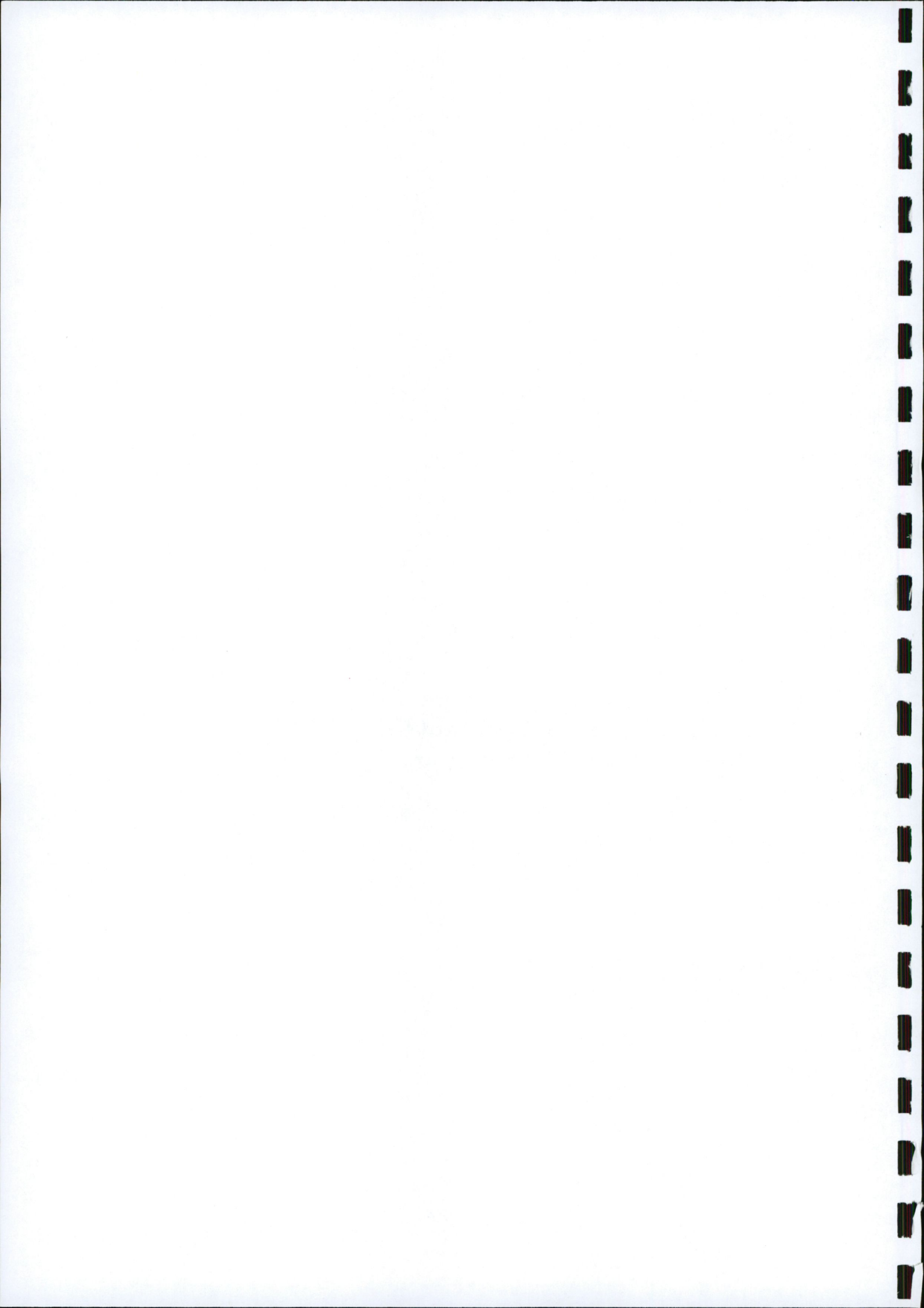
## **Resource Waste Management Plan (RWMP) for Construction & Demolition**

Proposed Phase 3 of Aderrig Development  
at Adamstown SDZ, Co. Dublin

October 2022

**Waterman Moylan Consulting Engineers Limited**

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Engineering Consultants

**Client Name:** Quintain Developments Ireland Ltd.  
**Document Reference:** 22-023.005 RWMP  
**Project Number:** 22-023

### Quality Assurance – Approval Status

This document has been prepared and checked in accordance with  
Waterman Group's IMS (BS EN ISO 9001: 2015, BS EN ISO 14001: 2015)

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<b>Issue</b>	<b>Date</b>	<b>Prepared by</b>	<b>Checked by</b>	<b>Approved by</b>
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**Comments**

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We disclaim any responsibility to the Client and others in respect of any matters outside the scope of the above.

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# **1. Introduction**

## **1.1 Background**

This Resource & Waste Management Plan (RWMP) for Construction and Demolition Waste has been prepared by Waterman Moylan on behalf of Quintain Developments Ireland Ltd. to accompany a planning application for the Phase 3 residential development at Aderrig, Adamstown, Co. Dublin.

## **1.2 Threshold for Construction Waste Management Plan**

The Plan has been prepared in compliance with Section 12.11.3 of the South Dublin County Development Plan 2022 – 2028 which requires that *'New residential development of 10 units or more should submit a Construction and Demolition Waste Management Plan'*.

## **1.3 Standards**

The Plan has been prepared for a Tier-2 project in compliance with *'Best Practice Guidelines for the preparation of Resource & Waste Management Plan for Construction and Demolition Projects'* published by the Environmental Protection Agency, Ireland in 2021.

## **1.4 Guidance for Environmental Design and Management**

*SDCC Construction and Demolition Waste Management Plan Pre-Planning Guidance* issued in September 2017 requires that the Plan should be consistent with the *"Best Practice Guidelines on the Preparation of Waste Management Plans for Construction and Demolition Projects"* published in July, 2006 by the Department of the Environment, Community and Local Government. These notes provided guidance on good practice for the preparation of this Plan.

## **1.5 Contents of Plan**

This Plan is for a Tier 2 Housing Development project with more than 10 residential units and covers the following phases:

- Design phase including the project conception, preliminary, outline and detailed design phases.
- The statutory planning phase under the Planning and Development Act 2000 (as amended).
- Procurement of contractor services and materials.

This Plan has been prepared during the planning stage prior to construction and will be updated by the Contractor for the Construction Stage of the project.

## **1.6 Structure of Plan**

The structure of this plan is set out below:

- 1.0 Background
- 2.0 Project Description
- 3.0 Roles and Responsibilities
- 4.0 Design Approach
- 5.0 Key Materials, Quantities
- 6.0 Site Management
- 7.0 Site Infrastructure

## 2. Project Description

### 2.1 Site Location

The overall Development Area 8 (Aderrig) site is approximately 21.7Ha generally sloping from the south to the north. The site subject to this planning application is Phase 3 located in the western section of the Development Area 8. The subject site, which is approximately 6.36Ha in size, with a net housing development area of 5.39Ha to the south-west and open space development area of 0.97Ha to the north. The subject site consists of agricultural lands and brown field lands. The site is accessed from Adamstown Way via Adamstown Avenue to the south and the Celbridge Link Road to the east.

### 2.2 Site Description

The subject site forms part of the larger Adamstown SDZ the development of which is ongoing.

The south-western site (5.39 Ha) is generally bound to the east by Celbridge Link Road, to the south and west by undeveloped land and an electrical substation and to the north by the Tubber Lane Development Area. The northern site (0.97 Ha) is generally bound to the east by the undeveloped Primary School site and Aderrig Park Avenue, to the south by Airlie Park Road West, to the west by Celbridge Link Road and the Tubber Lane Development Area and to the north by the Tubernaclugg Development Area.

The site is served by existing infrastructure constructed under the ASDZ Strategic Drainage Scheme and the Overall Adamstown Watermain Network Scheme. The existing infrastructure includes wastewater drainage, surface water drainage and watermains built within the existing roads around the subject site.

The existing road network in the area of interest consists of: -

- The **Celbridge Link Road** which connects the subject site north to the R403 Tubber Lane Road and then on to the N4 Leixlip Road.
- The **Adamstown Way** which connects the site east via the Stream Road to the Station Road, on to the R120 Newcastle Road.

The location of the site can be seen in Figure 2-1 below. For an exact site boundary please refer to the architect's drawings.





Figure 2-1: Site Location

### 2.3 Construction Program

At the time of writing in October 2022, it is likely that construction of the proposed development could commence in 2023 for completion in 2026.

## 2.4 Scale of Development

This application is being made in accordance with the Adamstown Planning Scheme 2014 (as amended) and relates to a proposed development within the Aderrig Development Area of the Adamstown Strategic Development Zone.

The proposed development will principally consist of 207 No. residential units (64 No. 2-bed, 127 No. 3-bed and 16 No. 4-bed), ranging in height from 2 No. storeys to 4 No. storeys, comprising 75 No. houses (59 No. 3-bed and 16 No. 4-bed) and 132 No. duplexes (64 No. 2-bed and 68 No. 3-bed).

The development will also include: vehicular junctions to access the development from Celbridge Link Road (2 No.) and Adamstown Way (3 No.); internal road, cycle and footpath network; 314 No. car parking spaces; cycle parking; bin storage areas; public, communal and private open space areas, with balconies and terraces facing all aspects; hard and soft landscaped areas; boundary treatments; public lighting; 2 No. sub-stations; and all associated site and development works above and below ground.

The proposed development includes, in broad terms the following: -

- Site clearance and site set up including the removal of :-
  - ❖ Any historical stockpile which is not reused on site, and
  - ❖ topsoil stripping.
- Excavating and Filling
  - ❖ historical fill removal if not suitable;
  - ❖ reusing the above excavated historic fill if deemed unsuitable.
- Construction of site access points
- Construction of infrastructure
- Construction of residential units

## 2.5 Non-Hazardous Wastes Arising

Typical construction waste which will be generated by the development is as follows: -

- General site clearance waste including tree stumps, shrubs etc.
- During a site investigation carried out on site no contaminated soil was found, but if contamination is discovered during construction, the excavated material will be required to be disposed of in a licensed landfill site.
- Surface water runoff.
- Packaging and waste construction materials generated during the construction activities.

In addition, waste will be generated by site staff throughout the construction phase. This waste will encompass general refuse, mixed dry recyclables, food wastes and wastes from any onsite portals.

## 2.6 Potentially Hazardous Wastes Arising

The potentially hazardous waste which could arise on site during the course of the construction stage of this development includes:

- Contaminated Soil – we would note no contaminated soils were identified as part of the site investigations undertaken by AECOM (2020) on the subject site
- Chemicals including Solvents
- Fuel / Oil / Waste Oil
- Batteries
- Asbestos– we would note no asbestos containing material (other than the live asbestos cement watermain) were identified as part of the site investigations undertaken by AECOM (2020) on the subject site
- Electrical and Electronic Equipment including Fluorescent Lamps
- Invasive Plant Species

In addition to the materials listed above, other materials could be identified / classified as hazardous during the construction stage of this project.

Table 2-1 below shows typical waste materials expected to be generated on a construction site with the European four-digit waste codes (EWC). For full list please refer to the latest EPA Waste Classification document *List of Waste & Determining if Waste is Hazardous or Non-hazardous*.

Table 2-1: Typical waste materials expected.

Waste Material EWC	Waste Material EWC
<b>Non-Hazardous</b>	
Concrete, bricks, tiles, ceramics	17 01
Wood, glass and plastic	17 02
Bituminous mixtures, coal tar and tarred products	17 03
Metals (including their alloys)	17 04
Soil, stones and dredged spoil	17 05
Gypsum-based construction material	17 08
Soil and stones other than those mentioned in 17 05 03 – mirror non-hazardous	17 05 04
<b>Hazardous</b>	
Electrical and Electronic Components	16 02
Batteries	16 06
Wood Preservatives	03 02
Waste hydraulic oils	13 01
Engine, gear and lubricating oils	13 02
Liquid Fuels	13 07
Soil and stones containing dangerous substances – mirror hazardous	17 05 03
Other insulation materials containing of or containing dangerous substances	17 06 03
Construction and demolition waste containing mercury - not expected banned in EU	17 09 01
Construction and demolition waste containing PCBs -not expected banned in EU	17 09 02
Other construction and demolition wastes containing dangerous substances	17 09 03
Solvents (xylene, white spirit, acetone and ethyl acetate)	20 01 13
Wastes from MFSU of adhesives and sealants (including waterproofing products)	08 04
Isocyanates (polyurethane paints, coatings, foams, glues and flooring)	08 05 01

## 2.7 Demolition Waste

Ground Investigations Ireland have completed 2 no. soil investigation reports relevant to the Aderrig Tile within Adamstown. The 2 no. reports, and distinction between the two, are to be referenced throughout this report as follows:

Report Name	Report Project No.	Date of Issue	Relevance
GII, Aderrig, Adamstown, Ground Investigation Report	7165-10-17	05 January 2018	Original ground report assessing the existing ground conditions.
GII, Adamstown Lucan, Subsoil Assessment Report	10251-12-20	15 January 2021	Subsequent ground report assessing the temporary stockpiles.

Both GII reports are submitted with this planning application under a separate cover.

The site investigation showed that the soils tested are below inert levels and are non-hazardous.

The site can be categorised as a combination of a green field and brown field site area with hedges, shrubs and trees on its western boundary. It contains a man-made mound which exists in the middle of the site north of the Adamstown Way. This mound consists of temporary stockpile generated during the construction of surrounding ASDZ developments. Refer to *Appendix 1* for the trial pit map from the GII Subsoil Assessment Report (Jan 2021) showing the stockpile areas tested within the Aderrig Tile, including the 1 no. stockpile within the proposed development.

The volumes of earthworks within this report includes that of the stockpile. Appropriate handling measures for these earthworks have been outlined within the report.

Expected demolition waste: -

- MADE GROUND (sample taken on a mound of fill on the site) slightly sandy slightly gravelly CLAY with occasional subangular cobbles.
- COHESIVE DEPOSITS either slightly sandy slightly gravelly CLAY or slightly sandy gravelly SILT with occasional subangular cobbles.
- Gravel / capping material / mineral material

After in-situ reuse and recycling options have been fully considered the demolition waste will be disposed of off-site by licensed waste contractors. The waste categories assigned to the soil samples are outlined within the GII Report (Jan 2021), *Potential Waste Categories for Disposal/Recovery* and are listed in Table 2-2 below: -

Table 2-2: GII Report (Jan 2021) Potential Waste Categories Extract

<b>Waste Category</b>	<b>Classification Criteria</b>
Category A Unlined Soil Recovery Facilities	Soil and Stone only which are free from <sup>3</sup> anthropogenic materials such as concrete, brick, timber. Soil must be free from "contamination" e.g. PAHs, Hydrocarbons <sup>4</sup> .
Category B1 Inert Landfill	Reported concentrations within inert waste limits, which are set out by the adopted EU Council Decision 2003/33/EC establishing criteria and procedures for the acceptance of waste at landfills pursuant to Article 16 and Annex II of Directive 1999/31/EC (2002). Results also found to be non-hazardous using the HWOL <sup>5</sup> application.
Category B2 Inert Landfill	Reported concentrations greater than Category B1 criteria but less than IMS Hollywood Landfill acceptance criteria, as set out in their Waste Licence W0129-02. Results also found to be non-hazardous using the HWOL application.
Category C Non-Haz Landfill	Reported concentrations greater than Category B2 criteria but within non-haz landfill waste acceptance limits set out by the adopted EU Council Decision 2003/33/EC establishing criteria and procedures for the acceptance of waste at landfills pursuant to Article 16 and Annex II of Directive 1999/31/EC (2002). Results also found to be non-hazardous using the HWOL application.
Category C 1 Non-Haz Landfill	As Category C but containing < 0.001% w/w asbestos fibres.
Category C 2 Non-Haz Landfill	As Category C but containing >0.001% and <0.01% w/w asbestos fibres
Category C 3 Non-Haz Landfill	As Category C but containing >0.01% and <0.1% w/w asbestos fibres.
Category D Hazardous Treatment	Results found to be hazardous using HWOL Application.
Category D 1 Hazardous Disposal	Results found to be hazardous due to the presence of asbestos (>0.1%).

The final and most applicable waste categories for each sample relevant to the Aderrig Phase 3 stockpile trial pits, according to the GII Report (Jan 2021), are summarised in Table 2-3 below.

Refer to Appendix 1 for the map showing the Aderrig 3 stockpile trial pit locations and naming convention. Relevant trial pits TP01 through to TP05 have reference. It can be seen from the below table that samples range from waste category A to B1, confirming that all stockpile samples are non-hazardous.

Table 2-3: GII Report (Jan 2021) Final Waste Classification Extract

Sample ID	Sample Depth (m)	Material Type	Sample Date	LoW Code	Waste Category
TP01	Composite	Clay	08/12/2020	17 05 04	Category B1
TP03	Composite	Clay	08/12/2020	17 05 04	Category A
TP05	Composite	Clay	08/12/2020	17 05 04	Category A

## 2.8 Construction Waste

The Ground Investigation Ireland report for the Aderrig Tile, issued in January 2018, contains information relevant to the soil profiles below the temporary stockpiles.

As per the GII Report (Jan 2018), the surplus subsoil expected to be generated during the infrastructure and foundation construction as a result of cut / fill activities are as follows: -

- TOPSOIL.
- MADE GROUND brown sandy gravelly CLAY and contained occasional fragments of concrete, red brick and plastic.
- COHESIVE DEPOSITS brown grey sandy gravelly slightly silty CLAY with occasional cobbles and boulders.
- WEATHERED BEDROCK limestone/mudstone.

Table 2-4 below shows the estimated cut and fill soil volumes for reuse or removal.

Table 2-4: Estimated soils volumes for reuse or removal

	Estimated Soils Cut Volume m <sup>3</sup>	Estimated Soils Fill Volume m <sup>3</sup>	Notes
Topsoil Removal	14,739	TBC at detail design stage	Soil fill to formation levels. Fill to be re-use assuming 200mm depth).
Made Ground (historic fill of unknown compaction)	Incl. in mounds removal	n/a	Assuming mounds as Made Ground material. Volume for removal will be determined by a site investigation after stripping when a final decision on type of foundation will be made.
Formation Level	23,173	12,355	Assumption on structural/minimum excavation to receive. Includes cutting to formation level approximately 600mm depth.  Includes cut for roads, pipe trenches, gardens and below structural slabs. Excludes topsoil removal volumes.
Under slab/top of footing	-	-	Included in Formation Level cut & fill volumes.
Gardens	-	-	General fill/topsoil. Included in Formation Level cut & fill volumes.
Roads/curtilage parking	-	-	Cut volume is included in the formation level. Fill volume refers to imported material.
Drainage & Watermain Network	-	-	Cut volume is included in the formation level. Fill volume refers to imported material.
Bio Retention Tree pits	TBC at detail design stage	n/a	Based on information supplied by the landscape architect tree pits have been identified (subject to assessment in contact with utility design) to be incorporated into the SuDS measures. In addition, drainage needs to link the bio retention tree pits as the ground has been identified in the Soils investigation as unsuitable for soak away.
<b>Total</b>	<b>37,912</b>	<b>12,355</b>	



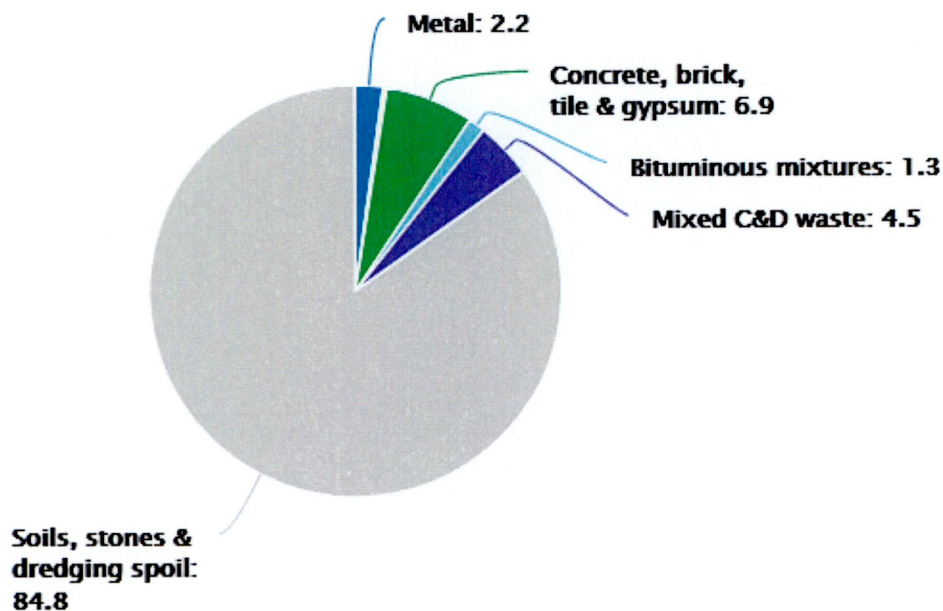
During the construction of the housing units, waste is expected to be produced from surplus materials such as broken or off-cuts of timber, concrete blocks, bricks, tiles plasterboard, glass, steel reinforcement, packaging etc.

EPA released Construction & Demolition (C&D) Waste Statistics for Ireland in October 2019 showing percentages of C&D waste material streams in reference to total C&D wastes generated.

When compared to the previous release in March 2018, the 2019 release categorises waste streams to fewer categories. The EPA reports Construction & Demolition (C&D) Waste Statistics for Ireland showing percentages of C&D waste material streams in reference to total C&D waste generated. See diagram and Table 2-5 below for details.

Table 2-5: Estimated Construction Waste Arisings on Site, EPA Data Release

### Composition of C&D waste material collected in Ireland, 2019



C & D Waste Material		Quantity (%) reported by EPA in March 2018	Quantity (%) reported by EPA in 2019
Soil and stones		74.35%	84.8%
Mineral waste		12.11%	<i>Not reported</i>
Residue from treatment of mixed wastes		6.35%	<i>Not reported</i>
Metal waste		5.24%	2.2%
Wood waste	1.95%	1.57%	0.3%
Glass waste		0.09%	
Plastic waste		0.01%	
Hazardous Materials		0.19%	<i>Not reported</i>
Mixed waste		0.08%	4.5%
Paper and cardboard waste		0.01%	<i>Not reported</i>
Concrete, Bricks tiles and similar		<i>Not reported</i>	6.9%
Bituminous mixtures		<i>Not reported</i>	1.3%

To calculate the construction waste arising on site the volume of 10,818m<sup>3</sup> for soil and stone was used excluding the historic fill and topsoil. Based on the EPA information above in Table 2-5, Table 2-6 below shows estimates of construction waste which might be generated during construction of the proposed development on site. Estimated average soils density to convert the volume of soil and stone waste to tonnes was taken as 1,800kg/m<sup>3</sup>. 10,818 x 1,800/1000=19,472 Tonnes

Table 2-6: Estimated Construction Waste Quantities

<b>C &amp; D Waste Material</b>	<b>Quantity based on EPA data reported on March 2018 (Tonnes)</b>	<b>Quantity based on EPA data reported in 2019 (Tonnes)</b>
Soil and stones	19,472	19,472
Mineral waste	3,172	Not reported
Residue from treatment of mixed wastes	1,663	Not reported
Metal waste	1,372	531
Wood waste	411	72
Glass waste	24	
Plastic waste	3	
Hazardous Materials	50	Not reported
Mixed waste	21	1,087
Paper and cardboard waste	3	Not reported
Concrete, Bricks tiles and similar	Not reported	1,667
Bituminous mixtures	Not reported	314

### 3. Roles and Responsibilities

#### 3.1 Overview of Client and Advisory Team

Client	:	Quintain Developments Ireland Ltd., Fitzwilliam Court, Leeson Close, Dublin D02 YW24.
Architect		bkdarchitects 6 / 7 Harcourt Terrace, Dublin 2:
Landscape Architects		Doyle & O'Troithigh Landscape Architects, Pembroke House, 28-23 Upper Pembroke St., Dublin 2
Civil Engineer	:	Waterman Moylan Block S, EastPoint Business Park, Alfie Byrne Road, Dublin 3
Environmental Consultant:		Brady Shipman Martin Mountpleasant Business Centre Ranelag Dublin D06 X7P8
Waste Consultant		To be appointed by the Client
Quantity Surveyor	:	To be appointed by the Client
Contractor	:	To be appointed by the Client.
Resource Manager	:	To be nominated by the Contractor
Sub-Contractors	:	To be appointed by the Contractor

### **3.2 Client**

The Client will finance the project and is responsible for the following:-

- Establishing the ambition and the performance targets for the project.
- Setting out these commitments and targets in relation to prevention and minimisation in the project brief, tender documentation including pre-qualification requirements, invitation to tender, etc.
- Requiring the preparation and submission of an RWMP as part of the design and planning submission, even if not requested by the planning authority for planning.
- Requiring the preparation and submission of an updated RWMP as part of the construction tendering process.
- Ensuring that the RWMP is agreed and submitted to the local authority prior to commencement of works on site; and
- Requesting the end-of-project RWMP from the Contractor

### **3.3 Design Team**

The Client Advisory Team (engineers, architects, consultants, etc) has been procured by the Client and is responsible for the following:

- Drafting and maintaining the RWMP through the design, planning and procurement phases of the project.
- Appointing a Resource Manager (RM) to track and document the design process, inform the Design Team and prepare the RWMP.
- Including details and estimated quantities of all projected waste streams. This should also include data on waste types (e.g. waste characterisation data, contaminated land assessments, site investigation information) and prevention mechanisms (such as by-products) to illustrate the positive circular economy principles applied by the Design Team.
- Incorporating relevant conditions imposed in the planning permission into the RWMP.
- Handover of the RWMP to the Contractor at commencement of construction for the development of the RWMP in a similar fashion to how the safety file is handed over to the Contractor.
- Working with the Contractor as required to meet the performance targets for the project.

### **3.4 Local Authority**

The Local Authority (or An Bord Pleanála) as the planning regulator is responsible for the following tasks: •

- Ensuring that the requirement for an RWMP for C&D Projects (as specified in these guidelines) is required for all planning applications (through setting this requirement as an objective of the County Development Plan or local planning policy) for development where construction or demolition is proposed.

- Ensuring that any RWMP submitted with planning complies with the requirements of these guidelines.
- Setting appropriate planning conditions as required in line with the requirements of Section 34(4)(l) of the Planning and Development Acts, as amended.
- Ongoing enforcement of these conditions through the construction phase.

### **3.5 Contractor**

The principal Contractor to be procured by the Client to undertake the construction operations will be responsible for the following:

- Preparing, implementing and reviewing the RWMP through the Construction Stage (including the management of all suppliers and sub-contractors) as per the requirements of the RWMP Guidelines.
- Identifying a designated and suitably qualified Resource Manager (RM) who will be responsible for implementing the RWMP.
- Identifying all hauliers to be engaged to transport each of the resources / wastes off-site. Note that any resource that is legally a 'waste' must only be transported by a haulier with a valid Waste Collection Permit.
- Identifying all destinations for resources taken off-site. As above, any resource that is legally a 'waste' must only be transported to an authorised waste facility.
- Addressing end-of-waste and by-product notifications with the EPA as required.
- Clarification of any other statutory waste management obligations, which could include on-site processing.
- Maintaining full records of all resources (both wastes and other resources) for the duration of the project.
- Preparing a RWMP Implementation Review Report at project handover.

## 4. Design Approach

### 4.1 Design Workshops

At the time of writing in October 2022, the project is at the planning stage with an application programmed to be lodged with SDCC in October 2022. Discussions have been held among the design team in relation to the concept, preliminary and outline design phases of the project to establish the location, land use size and appearance of the project for the purposes of preparing a planning application. As part of these workshops, we have identified a design approach that minimises waste through design. No workshops have been held in relation to the detailed design phase which is not expected to commence before receipt of planning permission.

### 4.2 Reuse and Recycling

Prior to the preparation of this Plan, it was decided by the Client that

- (a) The existing brownfield site should be adapted for reuse.
- (b) There are no existing buildings on the site that could be directly adapted, reused or refurbished in whole or in part to meet the Clients requirements.
- (d) There are no existing buildings on the site for use as site accommodation, welfare facilities and / or materials storage during the Construction Stage.
- (e) Further consideration of re-use and recycling will be incorporated in the detailed design phase which is not expected to commence until after completion of the planning stage.

### 4.3 Key Performance Indicators

The project specific targets set by the Client to be used as Key Performance Indicators (KPIs) for this project are set out in Table 1.

Table 7 Project Specific Targets

Indicator	Target
Weight (tonnes) or Volume (cum) of waste generated per construction value	See note below
Weight (tonnes) or Volume of waste generated per construction floor area (sqm)	
Fraction of resource used on site	
Fraction of resource notified as by-product	
Fraction of resource used which was recycled material	
Fraction of waste generated at source before being sent off -site for recycling / recovery	
Fraction of waste recovered, fraction of waste recycled, or fraction of waste disposed	

Note: In the absence of historical data from a similar completed project, it has not been possible to set performance targets in this edition of the RWMP.

#### **4.4 Green Procurement**

During the detailed design and pre-tender phases, tender specifications, selection and award criteria, and contract conditions will be drafted with the objective of procuring products and services that will prevent and reduce waste. The detailed design and pre-tender phase are not expected to commence until after completion of the planning stage.

#### **4.5 Off-Site Construction**

Consideration of off-site construction will be incorporated in the detailed design phase which is not expected to commence until after completion of the planning stage.

#### **4.6 Materials Optimisation**

Consideration of materials optimisation will be incorporated in the detailed design phase which is not expected to commence until after completion of the planning stage.

#### **4.7 Flexibility and Deconstruction**

Consideration of flexibility and de-construction will be incorporated in the detailed design phase which is not expected to commence until after completion of the planning stage.



## **5. Key Materials, Quantities**

### **5.1 Residual Resource Stream**

Each residual resource stream predicted will be identified and described during the detailed design phase and updated by the Resource Manager during the Construction Stage.

### **5.2 List of Waste (LoW) Codes**

A list of the appropriate waste codes will be included in the Resource Inventory to be prepared during the detailed design phase and updated by the Resource Manager during the Construction Stage.

### **5.3 Predicted Quantity of Material**

The predicted quantity of materials (in tonnes) will be estimated by the Quantity Surveyor during the detailed design phase during the detailed design phase and updated by the Resource Manager during the Construction Stage.

### **5.4 Resource Management Routes**

The identified resource management options from prevention, reuse, recycling, recovery and disposal for each material will be identified during the detailed design phase and updated by the Resource Manager during the Construction Stage.

### **5.5 Cost of Resource Management**

The estimated cost of resource management will be prepared by the Quantity Surveyor during the detailed design phase and updated by the Resource Manager during the Construction Stage.

## **6. Site Management**

### **6.1 Resource Manager**

A suitably qualified Resource Manager will be nominated by the contractor at the commencement of the Construction Stage.

### **6.2 Site Induction Training**

All training and induction in relation to resource management will be delivered by the Resource Manager.

### **6.3 Tool Box Talks**

The Resource Manager will be responsible for the provision of toolbox talks on resource management on a continuous basis.

### **6.4 Waste Collection Operators**

The Resource Manager will be responsible for ensuring that all residual resources legally classified as 'waste' moved off-site including soil and stone must be collected by authorised waste collectors.

### **6.5 Waste Collection Sites**

The Resource Manager will be responsible for ensuring that all residual resources legally classified as 'waste' taken from site must be sent to suitably authorised waste facilities for disposal or recover.

### **6.6 Supply Chains**

The Resource Manager will engage with a team or individuals tasked with the procurement of materials and services to ensure best practice procedures are employed to prevent residual resources at the site.

### **6.7 Record Keeping – Off-Site Export**

Site records for waste and resources exported off-site will be maintained by the Resource Manager.

### **6.8 Record Keeping– On-Site Resource Uses**

Site records for on-site resource uses will be maintained by the Resource Manager.

### **6.9 Reporting**

The Resource Manager will be responsible for internal reporting of resource statistics to the Client and Contractor management.

On completion of construction, the Resource Manager will prepare a final report summarising the outcome of the resource management processes adopted, the total reuse and recovery figures and the final destination of all resources taken off-site.

## **6.10 Communications**

Communication tasks to be carried out by the Resource Manager will include internal reporting, engaging with the relevant local authority, engaging with other stakeholders and preparing the final report.

## **6.11 Audits and Inspections**

The Resource Manager will be responsible for periodic audits and inspection of work practices, reviewing all records of waste and resources generated on-site or transported off-site and comparison of resource records with established targets.

## **7. Site Infrastructure**

### **7.1 Site Signage**

For the duration of the Construction Stage, labelling is adequate to provide information to assist good resource practice across the site.

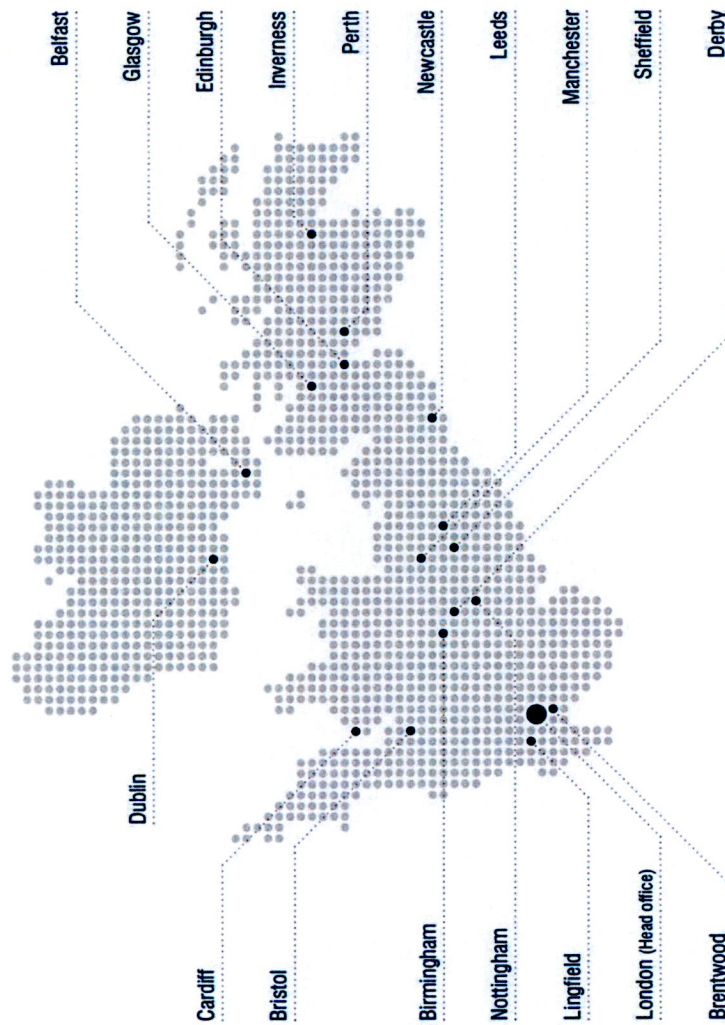
### **7.2 Resource Storage**

For the duration of the Construction Stage, the Resource Manager will be responsible for ensuring that the proposed Waste Storage Areas (WSAs) have adequate space for storage and handling.

### **7.3 Handling and Export of Resources**

For the duration of the Construction Stage, the Resource Manager will be responsible for the on-site handling and export of resources in compliance with the Guidelines.

# UK and Ireland Office Locations



at Adamstown SDZ, Co. Dublin  
Project Number: 22-023  
Document Reference: 22-023.005 RWMP