


<i>Construction</i>	Horgan's Quay Development			
Site Specific WMP	Note: Always print or copy to double-sided pages	REV: 01	Date: Aug 2019	Site Specific WMP



Horgan's Quay Development

Construction Waste Management Plan

Site Revision 03

Environmental Dept. Revision No: 03			
Reason For Issue: In line with tender requirements			Client Approval
Originator	Reviewer	Approver	(if required)
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Copy	Circulation:	Name	Company	Location
1	Contract Manager	Frank Brennan	BAM	Site
2	Project manager	Oliver Ryan	BAM	Site
3	General Foreman	Gabriel Buckley	BAM	Site
4	Site Safety, Health & Environmental Officer	TBC	BAM	Site
6	Co. Environmental Coordinator	Jan Gottsche	BAM	Head Office, Kill
7	<i>Subcontractors</i>		BAM	
	<i>Client</i>			

NOTE: THIS DOCUMENT IS SUBJECT TO CHANGE UPON COMMENCEMENT



<i>Construction</i>	Horgan's Quay Development			
Site Specific WMP	Note: Always print or copy to double-sided pages	REV: 01	Date: Aug 2019	Site Specific WMP

TABLE OF CONTENTS

1. INTRODUCTION.....	3
Project Description.....	3
Purpose and Scope of the WMP	4
2. WASTE MANAGEMENT POLICY.....	6
Recycling/Waste Management Goal	6
Strategy to Achieve the Goal	6
3. ROLES AND RESPONSIBILITIES	7
4. LEGISLATION AND GUIDANCE	7
Waste License / Permit Requirements	7
5. IDENTIFICATION OF WASTE STREAMS	8
Other Items for Waste Identification	8
6. ON-SITE MANAGEMENT OF WASTE.....	8
Waste Management	8
Hazardous Wastes Management	9
7. WASTE TREATMENT PROCEDURES.....	9
8. WASTE CONTRACTOR INFORMATION.....	10
9. RECORD KEEPING – WASTE VOLUMES.....	11
10. WASTE INSPECTION AND AUDITING	12
11. COMMUNICATION AND DOCUMENTATION REQUIREMENTS.....	12
Communications	12
Cost Tracking.....	12
Responsibilities:.....	13
12. WASTE MANAGEMENT TRAINING	14
Appendix 1: Site Map (Showing waste storage areas – Yellow Highlighted Area within site boundary).....	15
Appendix 2: Waste Licenses & Permits.....	16
Appendix 3: Waste Contractor Checklist	17
Appendix 4: Definitions	18

<i>Construction</i>	Horgan's Quay Development			
Site Specific WMP	Note: Always print or copy to double-sided pages	REV: 01	Date: Aug 2019	Site Specific WMP

1. INTRODUCTION

Project Description

The site is located approximately 800m north-east of Cork City centre (**Figure 4.1**). The site is currently paved and houses a number of derelict buildings, extending to approximately 2.48 hectares. The site is bounded by Kent Station to the east, with Railway St and the Penrose Wharf commercial properties to the west. South of the site runs Horgan's Quay and the River Lee, while the north of the site is bounded by Lower Glanmire Rd. The site has approximately 195m of river frontage.

The site hosts a number of buildings of varying sizes. All of these are disused and derelict. Three of the buildings are protected structures: The Station Master's House, the Carriage Shed, and the Goods Shed. Refer to **Figure 4.2**.

There is pedestrian access to the site via a set of stairs from Lower Glanmire Rd, and vehicular access from Railway St which runs adjacent to the western boundary of the site. The parts of the site devoid of buildings are being used as overflow pay-and-display parking bays for Kent Station.

The proposed development will include the construction of a hotel, Stratig Housing Development Units, retail units and offices, incorporating the conservation of the three protected structures on the site. The existing site layout is shown in **Figure 4.2**.

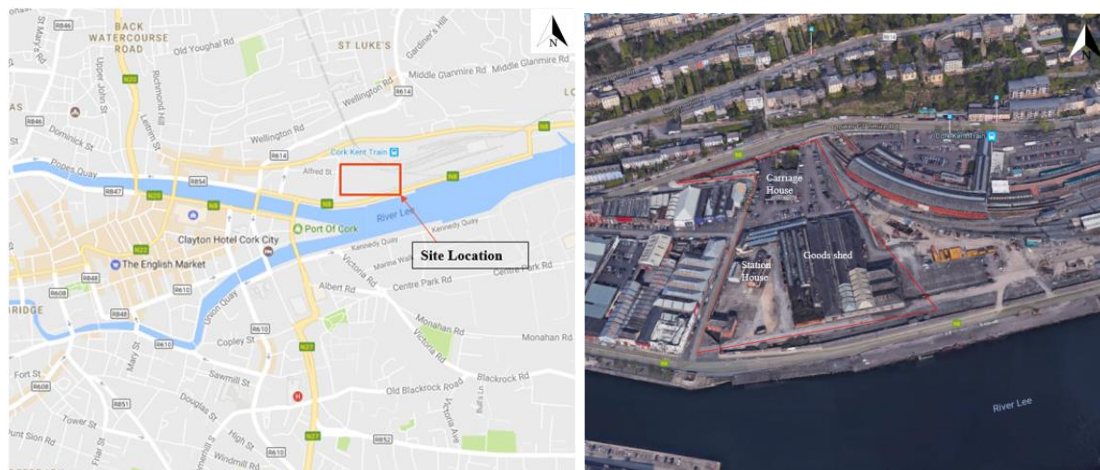



Figure 4.1 & 4.2 Site Location & Existing Layout

<i>Construction</i>	Horgan's Quay Development			
Site Specific WMP	Note: Always print or copy to double-sided pages	REV: 01	Date: Aug 2019	Site Specific WMP

Purpose and Scope of the WMP

The purpose of this plan is to ensure that all waste materials arising from the Horgan's Quay Development are managed and disposed of in accordance with the:

- Provisions of the Waste Management Acts 1996 – 2013 and associated regulations;
- Waste Management (Hazardous Waste) Regulations;
- Movement of Hazardous Waste Regulations;
- The Carriage of Dangerous Goods by Road Act.
- (Shipment of Waste) Regulations;
- Cork County Council Waste Management Plan;
- Environmental Protection Act 1990: Waste Management, the duty of Care
- Project Specific Construction Requirements (Contract Documents); and
- the Company Environmental Management System

The plan also takes into account the requirements of the

- Best Practice Guidelines on the preparation of waste management plans for construction and demolition waste projects
- “Changing our Ways” Waste Management Policy Statement

Scope of Material which may arise


Waste will arise from numerous sources from the site which include:

- Demolitions waste
- Excavated material
- Welfare Waste
- Waste material from temporary works, such as timber from formwork.

Construction Environmental Management Plan

The overall Construction Environmental Management Plan, inclusive of the Waste Management Plan, will be prepared and issued prior to the commencement on site. These Plans are working documents, clearly stating the arrangements in place to manage the significant environmental aspects and legal requirements of this project. These Plans will cover BAM activities and that of its Subcontractors when it comes to Environmental and waste management matters.


BAM are aware of the sensitive nature of works and will take diligent precautions relating to contamination, vegetation, safety and environmental concerns relevant to this particular location. All personnel will be made aware of their responsibility to notify site management about potential and obvious environmental hazards. Our Waste Management Plan will be updated regularly in particular in relation the management of disposal and the waste management on the site.

<i>Construction</i>	Horgan's Quay Development			
Site Specific WMP	Note: Always print or copy to double-sided pages	REV: 01	Date: Aug 2019	Site Specific WMP

Programme of Works (Construction Phase Schedule)

It is envisaged that the works will be undertaken from the August 2018 to Dec 2022. Waste Management will occur throughout the project.

(Note; While these dates are as accurate as can be calculated at this time, they may however be somewhat subject to change)

Construction	Horgan's Quay Development			
Site Specific WMP	Note: Always print or copy to double-sided pages	REV: 01	Date: Aug 2019	Site Specific WMP

2. WASTE MANAGEMENT POLICY

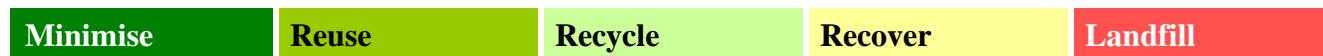
BAM's Environmental Policy is located in the main CEMP Document. This policy states we will “Develop management processes and procedures that prevent pollution, protect native species and habitat, minimise waste generation, promote recycling and the use of recyclable materials, and maximise the efficient use of material and energy resources.”

Recycling/Waste Management Goal

Under the Waste Framework Directive (Directive 2008/98/EC) the relevant target for the project for the construction and demolition waste is a minimum of 70% to be reused, recycled or otherwise recovered.

The recycling / waste management goal for the project is to manage all waste in accordance with the relevant statutory provisions and the waste hierarchy:

The waste management strategy for the project will follow the accepted waste hierarchy.




Waste & Recycling Targets:

- ≤ 9.5t C&D waste generated per 100m² (gross internal floor area) (construction phase only)
- 100% recycling of surplus reinforcement where possible
- Reuse of all earthworks materials on site – Zero export where possible (excluding contaminated materials)
- No contamination of skips – No additional costs due to inappropriate materials being placed in skips designated for particular waste streams

Strategy to Achieve the Goal

The waste management goal shall be achieved through the implementation of several guiding principles in accordance with the waste hierarchy, namely:

- Giving preference to the purchase of materials with minimum packaging;
- Storing materials in designated areas and separate from wastes to minimise damage;
- Returning packaging to the producer where possible;
- Maximising the reuse of soils and rock on site during the construction of the project;
- Segregating construction and demolition wastes into reusable, recyclable and non-recyclable materials;
- Reusing and recycling materials on site during construction where practicable;

<i>Construction</i>	Horgan's Quay Development			
Site Specific WMP	Note: Always print or copy to double-sided pages	REV: 01	Date: Aug 2019	Site Specific WMP

- Recycling other recyclable materials through appropriately permitted / licensed contractors and facilities; and
- Disposing of non-recyclable wastes to licensed landfills.

3. ROLES AND RESPONSIBILITIES

Roles and Responsibilities for Implementation of Waste Management and Minimisation:

The Waste Management operation on Site will be overseen by BAM's Contract's Manager Frank Brennan, though the day to day implementation will be managed by Kaylee Want, who is BAM's Safety, Health, Quality and Environmental officer for the project.

BAM's Environmental Coordinator, Jan Gottsche, who oversees the company waste policies, will also be on site regularly to assist Catriona in the performance of the role.

4. LEGISLATION AND GUIDANCE

Waste License / Permit Requirements


The following statutory restrictions apply with regard to the collection and treatment of waste in Ireland:

Waste Management (Collection Permit) Regulations 2008

- All types of waste may only be collected and transported from site by a contractor who holds a Waste Collection Permit for the type of waste being collected. (Attached in Appendix 2)
- Waste shall only be disposed of or recovered at a site which holds a Licence or Permit under the Waste Management (Facility, Permit and Registration) (amend) Regs 2008.
- We must obtain a copy of the 'end disposal site' Licence or Permit for the waste we are disposing of.
- Copies of all relevant licenses and permits shall be kept on site and attached to this plan in Appendix 2

Waste Management (Hazardous Waste) Regulations 1998

- Hazardous waste removed from site must be accompanied by a Waste Transfer Form (WTF) as per European Communities (Shipments of Hazardous Waste Exclusively within Ireland) Regulations 2011.
- Hazardous waste to be removed from Ireland for treatment elsewhere must be accompanied by a Transfrontier Shipment Form in accordance with the Waste Management (Shipment of Waste) Regulations 2007

<i>Construction</i>	Horgan's Quay Development			
Site Specific WMP	Note: Always print or copy to double-sided pages	REV: 01	Date: Aug 2019	Site Specific WMP

5. IDENTIFICATION OF WASTE STREAMS

Waste will arise from numerous sources from the site. The majority of the waste will be the typical inert waste that arises during excavation works. There will be arising material mainly from the bulk excavations for the building, ducting & chambers and attenuation tanks.


Other Items for Waste Identification

- Waste material from Temporary works, such as timber from formwork for temporary works, such as handrails and hoarding.
- There will be waste from the site offices.
- Excess material/ cut-offs from the permanent works operation (excess geotextile, pipes, concrete, steel).
- General construction waste.

6. ON-SITE MANAGEMENT OF WASTE

Waste Management

- Whenever possible materials for construction activities shall be ordered as to prevent the minimum storage time and kept in the storage area before release to site for use.
- Materials shall be ordered, where possible, in sizes to prevent wastage e.g. in form of offcuts and waste to be able to be returned to the original supplier e.g. plastic pipe.
- Materials delivered to the project will be received and controlled by the Stores Manager (or similar). Materials will be stored to minimise the potential of damage or wastage. Measures will include off-ground storage e.g. on pallets, remaining in original packaging, protection from rain damage or collision by plant or vehicles.
- The materials storage area will be secured during out of hours to prevent unauthorised access.

<i>Construction</i>	Horgan's Quay Development			
Site Specific WMP	Note: Always print or copy to double-sided pages	REV: 01	Date: Aug 2019	Site Specific WMP

Hazardous Wastes Management

- Hazardous wastes pose a risk to the health and safety of personnel as well as the environment. The Site Safety, Health & Environmental Officer should be notified of any hazardous waste or suspected hazardous waste, and consulted for assistance with handling procedures. Under the health and safety plan risk assessments and procedures are available for:

Duty of Care

- Responsibility for waste management lies with the principal contractor unless a contractual agreement with sub-contractors to manage their own waste arising's exists


7. WASTE TREATMENT PROCEDURES

A waste management compound shall be set up to handle incoming waste from construction activities. This will be designed to facilitate the segregation of key waste streams to maximise the opportunity to re-use, recycle and return wastes generated on site. The segregated waste will be placed in skip containers. Waste will be placed in the skips in such a way to minimise 'empty' space.

The skips will be labelled to clearly highlight waste stream for each skip. As a minimum skips and containers will be provided for segregating of the following key waste streams:


Mixed Metal	Timber	General	Packaging (cardboard)	Hazardous
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Hazardous waste will be kept in a secure area away from other wastes to ensure no contamination takes place. Separate areas within the waste compound shall also be allocated for the storage of plastic piping awaiting return to supplier, waste tyres and WEEE (where applicable). The layout of the waste compound will be provided in Appendix 1 of the contract-stage version of this Plan.

<i>Construction</i>	Horgan's Quay Development			
Site Specific WMP	Note: Always print or copy to double-sided pages	REV: 01	Date: Aug 2019	Site Specific WMP

8. WASTE CONTRACTOR INFORMATION

Type of Waste Contractor	Name of waste Contractor	National Waste Collection Permit (NWCP) Number	Waste Facility Permit No./Waste License No./COR No.	
General Waste Contractor(s)	Midleton Skip Hire	NWCPO-10-04759-02	WFP-CK-10-0052-01-A1	
C&D Waste Contractors(s)	Midleton Skip Hire	NWCPO-10-04759-02	WFP-CK-10-0052-01-A1	
Hazardous Waste Contractors(s)	TBC			
Excavated Materials Waste Contractors(s)	TBC			
Specialist Asbestos Removal Contractor	TBC			
Recyclables/ Mixed Waste Contractor(s)	Paper	Midleton Skip Hire	NWCPO-10-04759-02	WFP-CK-10-0052-01-A1
	Plastic	Midleton Skip Hire	NWCPO-10-04759-02	WFP-CK-10-0052-01-A1
	Timber	Midleton Skip Hire	NWCPO-10-04759-02	WFP-CK-10-0052-01-A1
	Metal	Midleton Skip Hire	NWCPO-10-04759-02	WFP-CK-10-0052-01-A1
	Gypsum			
	Mixed	Midleton Skip Hire	NWCPO-10-04759-02	WFP-CK-10-0052-01-A1
	<i>Other (specify)</i>			

Construction	Horgan's Quay Development			
Site Specific WMP	Note: Always print or copy to double-sided pages	REV: 01	Date: Aug 2019	Site Specific WMP


9. RECORD KEEPING – WASTE VOLUMES

Waste reports from individual waste contractors are used throughout the company to fulfil our Corporate Social Responsibility (CSR) requirements with regard to identifying and recording waste, energy emissions and CO₂ production. Each quarter, waste contractor for all sites are asked to issue report detailing the volumes of waste generated and the waste destination for their sites.

However, the following information should be added to a Waste Matrix (see EB-16- Appendix 8) on a **monthly** basis to ensure all movements are recorded on site for Local Authority Inspections:-

- Waste codes for all waste streams
- Waste streams (*as per the European Waste Catalogue (EWC)**)
- Waste collectors
- Waste disposal sites
- Tonnages
- Site specific details

Waste Matrix Documentation						
Waste Stream	Site Name and No	Date of Collection	EWC Code	Tonnes cu3	Waste Collection Company name, address and Permit no.	Final Disposal Site name, address and License no
Mixed metals			17 04 07			
Other construction & demolition wastes			17 09 04			
Construction materials containing asbestos			17 06 05* (hazardous)			
Dredging spoils containing dangerous substances			17 05 05* (hazardous)			
Soil and stone containing dangerous substances			17 05 03* (hazardous)			
Wood			17.02.01			
Soil and stone other than those mentioned in 17 05 03*			17 05 04			

<i>Construction</i>	Horgan's Quay Development			
Site Specific WMP	Note: Always print or copy to double-sided pages	REV: 01	Date: Aug 2019	Site Specific WMP

10. WASTE INSPECTION AND AUDITING

Monitoring of the waste management plan will be undertaken at various levels. The Project Manager (or similar) is responsible for tracking quantities of material sent for recycling, recovery or disposal and costs associated with each waste stream.

Monitoring the onsite implementation of waste handling procedures shall be undertaken by the General Foreman on an ongoing basis and should be reported weekly as part of the Foreman's Weekly Safety & Environment checklist. Monitoring of the skips in the main compound is undertaken by the Stores Manager or General Foreman as detailed before, and this is checked by the Safety, Health & Environmental Officer once a week as part of the general environmental inspection. Inspection reports are kept in a file on site by the Site Safety, Health & Environmental Officer. In consultation with the Site Safety, Health & Environmental Officer the General Foreman shall be responsible for any action required as a result of the weekly inspection to ensure compliance with the waste management procedures.

An audit of the waste management plan and procedures will be conducted by the Environmental Coordinator at three to six month intervals, as specified in the Site EMP.

11. COMMUNICATION AND DOCUMENTATION REQUIREMENTS


Communications

All employees and contractors are required to undertake a site induction prior to conducting any work on site. At this induction the waste management goals and strategy shall be made clear and the employees shall be made aware that they are responsible for ensuring the management of waste in accordance with this management plan. 3 Toolbox talks on environmental and waste issues shall be conducted quarterly. For further details refer to the Site Environmental Management Plan.

Progress on the implementation of the waste management plan will be communicated to staff at the monthly safety meeting and at internal progress meetings.

Cost Tracking

The Site Agent (or similar) is responsible for tracking the costs associated with the implementation of the waste management plan. It is essential that waste costs are communicated back to personnel, particularly if additional charges are incurred due to contamination of skips with other wastes.


<i>Construction</i>	Horgan's Quay Development			
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Responsibilities:

BAM's Contracts Manager is responsible for the implementation of this Waste Management Plan and for ensuring that activities on site comply with the requirements of the Waste Management Acts, 1996 to 2013 and associated regulations.

All site engineers and foreman shall be responsible for monitoring the implementation of this management plan through regular site inspections. Monitoring should be recorded on the relevant checklists (refer to Section 7).

Task	Frequency	Responsible	Name & Number
Waste Management Plan Implementation	Ongoing	Site Agent or Foreman	
Tracking costs	Ongoing (updated monthly)	Site Agent	
Notification of skip contamination	At least weekly	General Foreman	
Inspections of skips, maintenance of skip area	At least weekly	General Foreman	
Order and exchange skips	As required	General Foreman	
Monitoring waste management implementation	Ongoing	General Foreman/ Site Safety, Health & Environmental Officer	
Issuing warning for illegal dumping in skips	As required	General Foreman	
Liaising with Client, Neighbours, other contractors and regulatory bodies	As required	Site Agent	
Return printer / copier cartridges	As required	Site Administrator / Receptionist	
Provide advice on hazardous waste handling and disposal	Ongoing	Environmental Coordinator	
Undertaking toolbox talks on waste procedures	3 per quarter	Site Safety, Health & Environmental Officer	
Keeping records (eg checklists)	Weekly	Site Safety, Health & Environmental Officer	
Completing hazardous waste consignment note	As required	Specialist Hazardous Waste Contractor	
Internal audit	Quarterly	BAM Environmental Coordinator & Site Safety, Health & Environmental Officer	


<i>Construction</i>	Horgan's Quay Development			
Site Specific WMP	Note: Always print or copy to double-sided pages	REV: 01	Date: Aug 2019	Site Specific WMP

12. WASTE MANAGEMENT TRAINING

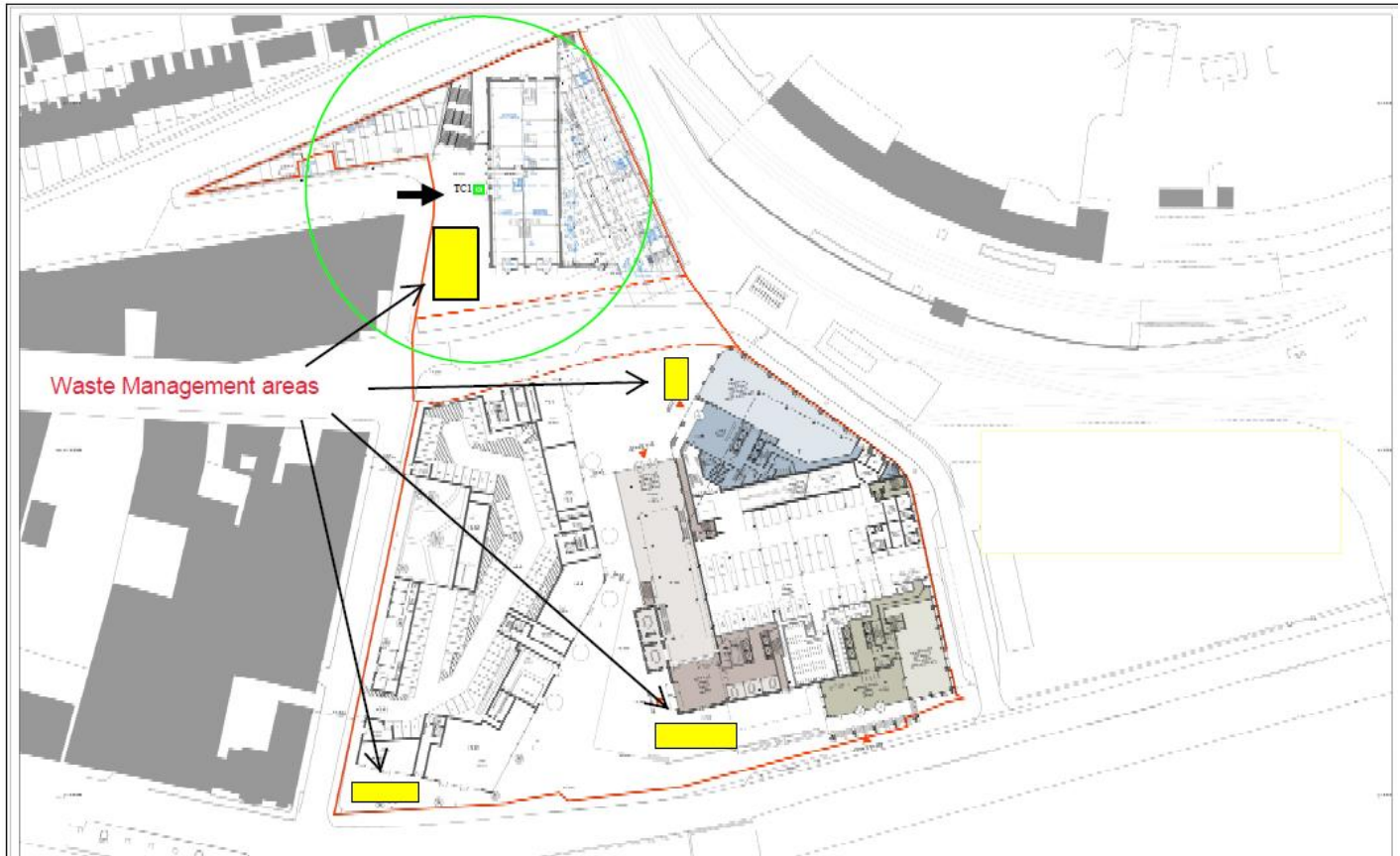
The Environmental Manager and HSE Manager will identify individual and group training needs and establish and implement a training programme. The site, in conjunction with the HSE Department, will identify the best methods of raising awareness for persons working for or on behalf of BAM Contractors, who have the potential to cause a significant impact. Awareness training on site shall be carried out in conjunction with health and safety and include:


- The importance of conformance with the waste policy and procedures, and with the requirements of the environmental management system.
- The significant environmental aspects and related actual or potential impacts associated with the waste on site and activities, and the environmental benefits of improved personal performance
- Their roles and responsibilities in achieving conformity with the requirements of the environmental management system
- The potential consequences of departure from the WMP and specified operating procedures.

This training shall be delivered via inductions and toolbox talks as well as training sessions organised in consultation with the Environmental Manager and HSE Manager. Training will be documented in the CEMP for the site, including a schedule of toolbox talks.

Construction	Horgan's Quay Development			
Site Specific WMP	Note: Always print or copy to double-sided pages	REV: 01	Date: Aug 2019	Site Specific WMP

Appendix 1: Site Map (Showing waste storage areas – Yellow Highlighted Area within site boundary)



<i>Construction</i>	Horgan's Quay Development			
Site Specific WMP	Note: Always print or copy to double-sided pages	REV: 01	Date: Aug 2019	Site Specific WMP

Appendix 2:

Waste Licenses & Permits


PLEASE CLICK ON HYPERLINKS TO VIEW PERMITS

[Midleton Waste Collection Permit](#)

[Midleton Waste Facility Permit](#) – Site Waste – Refuse – Timber

TBC – Inert Construction Material

TBC – Asbestos and other Hazardous Material

<i>Construction</i>	Horgan's Quay Development			
Site Specific WMP	Note: Always print or copy to double-sided pages	REV: 01	Date: Aug 2019	Site Specific WMP

Appendix 3:

Waste Contractor Checklist

Waste Contractor Checklist

Yes No

1. Do you have a Waste Collection Permit (WCP) for EVERY Waste Contractor that collects ANY waste from the site (full copies)


2. Is the waste contractor permitted to collect the type of waste in question? Is the specific waste type being collected detailed in the waste collection permit?

3. Have you contacted the waste contractor and asked what licensed / permitted facility our waste is being brought to?

4. Is this licensed / permitted facility stated in the waste collection permit? If not, the waste contractor should be contacted and asked.

5. Have you checked the waste facility permit / license to see if they can accept the waste in question? (It is very important to check this if the waste is hazardous)

6. Have you checked the waste transfer notes comply with EA-20 Waste Transfer Notes

Construction	Horgan's Quay Development			
Site Specific WMP	Note: Always print or copy to double-sided pages	REV: 01	Date: Aug 2019	Site Specific WMP

Appendix 4: Definitions

Re-use

Products or components that are not waste are used again for the same purpose for which they were conceived;

Recycling

Any recovery operation by which waste materials are reprocessed into products, materials or substances.

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 fulfill a particular function, or waste being prepared to fulfil that function, in the plant or in the wider economy.

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.

Inert Waste

Waste that -

- does not undergo any significant physical, chemical or biological transformations,
- will not dissolve, burn or otherwise physically or chemically react, biodegrade or adversely affect other matter, or be adversely affected by other matter, including waters, with which it comes into contact in a way that causes or is likely to cause environmental pollution, or
- will not endanger the quality of surface water or groundwater;

Hazardous Waste

Waste which displays one or more of the hazardous properties listed below:-

- Explosive
- Oxidizing
- Highly flammable (liquids, substance, solid liquid, gaseous substance)
- Flammable liquid substances
- Irritant
- Harmful
- Toxic
- Carcinogenic
- Corrosive
- Infectious
- Toxic for reproduction
- Mutagenic
- Waste which releases toxic or very toxic gases in contact with water, air or an acid
- Sensitizing substances
- Eco-toxic
- Waste capable by any means, after disposal, of yielding another substance, e.g. a leachate, which possesses any of the characteristics listed above