



**ENVIRONMENTAL MANAGEMENT SYSTEM**

**O'REGAN QUARRY PRODUCTS LIMITED**

**TULLIGMORE**

**DRIPSEY**

**COUNTY CORK**

**WASTE LICENCE NO. W0255-01**

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**Prepared For: -**

O' Regan Quarry Products Limited,  
The Mills Commercial Park,  
Crookstown,  
County Cork.

**Prepared By: -**

O' Callaghan Moran & Associates,  
Granary House,  
Rutland Street,  
Cork.

**14<sup>th</sup> September 2010**

# TABLE OF CONTENTS

	<b><u>PAGE</u></b>
<b>1. INTRODUCTION .....</b>	<b>1</b>
EMS DOCUMENTATION .....	1
Corrective Action Procedures .....	2
Awareness and Training Procedures .....	2
Reporting Procedure .....	2
Communications Programme .....	2
Maintenance Programme .....	2
<b>2. SITE DESCRIPTION .....</b>	<b>3</b>
2.1 SITE LOCATION .....	3
2.2 SURROUNDING LANDUSE .....	3
2.3 SITE LAYOUT .....	3
2.4 SITE FACILITIES .....	5
2.5 SURFACE WATERS .....	5
2.6 GEOLOGY AND HYDROGEOLOGY .....	5
Soils .....	5
Bedrock .....	6
Hydrogeology .....	6
2.7 QUARRY .....	6
2.8 WASTE ACTIVITIES .....	7
C & D Recycling .....	7
Reinstatement Works .....	7
2.9 SITE ACCESS .....	7
2.10 CONSUMABLES .....	8
<b>3. OPERATIONS .....</b>	<b>9</b>
3.1 WASTE ACCEPTANCE & OPERATIONAL HOURS .....	9
3.2 MANAGEMENT STRUCTURE .....	9
3.3 OPERATIONAL PROCEDURES .....	9
3.4 WASTE TYPES AND VOLUMES .....	10
3.5 PLANT & MACHINERY .....	10
3.6 WASTE ACCEPTANCE PROCEDURES .....	10
3.7 MATERIALS PROCESSING .....	12
3.8 QUALITY TESTING .....	12
3.9 WASTES GENERATED .....	12
3.10 ENVIRONMENTAL NUISANCE .....	12
3.11 EMISSIONS .....	13
Surface Water .....	13
Soil and Groundwater .....	13
Noise .....	13
Dust .....	13
3.12 ENVIRONMENTAL MONITORING PROGRAMME .....	14
Dust .....	14
Noise .....	14
Groundwater .....	14
Surface Water .....	14
3.13 SAFETY AND HAZARD CONTROL .....	14
3.14 CONTINGENCY ARRANGEMENTS .....	14
<b>4. SCHEDULE OF OBJECTIVES &amp; TARGETS .....</b>	<b>15</b>

**APPENDIX 1** - Standard Operating Procedures

**Drawing 0513902** - Proposed Site Layout

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# 1. INTRODUCTION

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O'Regan Quarry Products Ltd (O'Regan's) was issued with Waste Licence Reg. No. W0255-01 on the 20<sup>th</sup> July 2010 for their site in Tulligmore, Dripsey County Cork. The site is an operational sand and gravel quarry, within which a number of waste activities will be carried out.

The Licence authorises the infill of worked out area using imported inert soils and stones and processing of inert Construction and Demolition (C&D) waste to produce aggregate which will be sold or used in the construction of site haul roads. The amount of materials that can be accepted is 280,000 tonnes per annum. Following completion of the infilling operations, the restored areas of the site will be returned to agricultural grassland. The C&D processing will continue indefinitely.

Condition 2.2.2 requires the preparation of an Environmental Management System (EMS) for the facility. The EMS must comply with the requirements specified in Conditions 2.2.2.1 to 2.2.2.7 which are:-

Management & Reporting Structure;  
Schedule of Objectives & Targets;  
Documentation;  
Corrective Action Procedures;  
Awareness & Training Procedures;  
Communications Programme;  
Maintenance Programme.

## Scope

This document describes the EMS, contains all the supporting documentation, and also comprises the site's Environmental Management Programme (EMP). It provides information on the design and operation of the facility; details of the operator; the waste types and volumes accepted for recovery; capacity; operational controls including surface water management, waste water control and management; and the environmental monitoring programme. It sets out the Management and Reporting Structure and also contains a Schedule of Objectives and Targets.

## EMS Documentation

The EMP is a core element of the EMS and is designed to facilitate the management of site activities in accordance with regulatory requirements and best practice and to achieve the EMS

Objectives and Targets. The EMP also serves as a guidance document for facility staff and describes operational control and management practices that are applied. The EMS documentation in addition to this EMP includes: -

#### *Corrective Action Procedures*

O'Regan's has prepared Standard Operating Procedures (SOP) to ensure that corrective action is taken should the requirements of the Waste Licence and the EMS not be fulfilled. Copies of the Procedures are contained in Appendix 1.

#### *Awareness and Training Procedures*

The objective of the Awareness and Training Procedure is to ensure that the awareness and training needs of the facility personnel are identified and the required training provided. A copy of this Procedure is contained in Appendix 1.

#### *Reporting Procedure*

O'Regan's has prepared a Reporting Procedure with the aim of ensuring that all of the reports specified in the Licence are prepared.

#### *Communications Programme*

The Annual Environmental Report (AER), which is required under Condition 11.10 of the Licence, forms the basis of the facility's communication programme with the general public.

#### *Maintenance Programme*

O'Regan's will prepare a documented Maintenance Programme for all key items of plant and equipment.

The EMS is supported by the various operational procedures and other reports prepared on foot of Waste Licence conditions. Any amendments to the EMS documentation arising from the experience of the implementation of the procedures and preparation of these reports will, at a minimum, be incorporated into the EMS documentation as part of an annual review of the EMS. The updates will be included in the AER.

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## 2. SITE DESCRIPTION

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### 2.1 Site Location

The site, which encompasses approximately 32 ha, is located in the townland of Tulligmore, approximately 3 kilometres north east of Coachford, as shown on Figure 2.1. It is bounded to the west by the R619 Regional Road and to the north by a county road. The southern section of the eastern boundary is formed by a tributary of the Dripsey River, which flows in a southerly direction. To the south the site is bounded by agricultural lands. The north eastern boundary is delineated by a concrete post and link fence. The northern, south eastern and western boundaries are delineated by mature hedgerows.

### 2.2 Surrounding Landuse

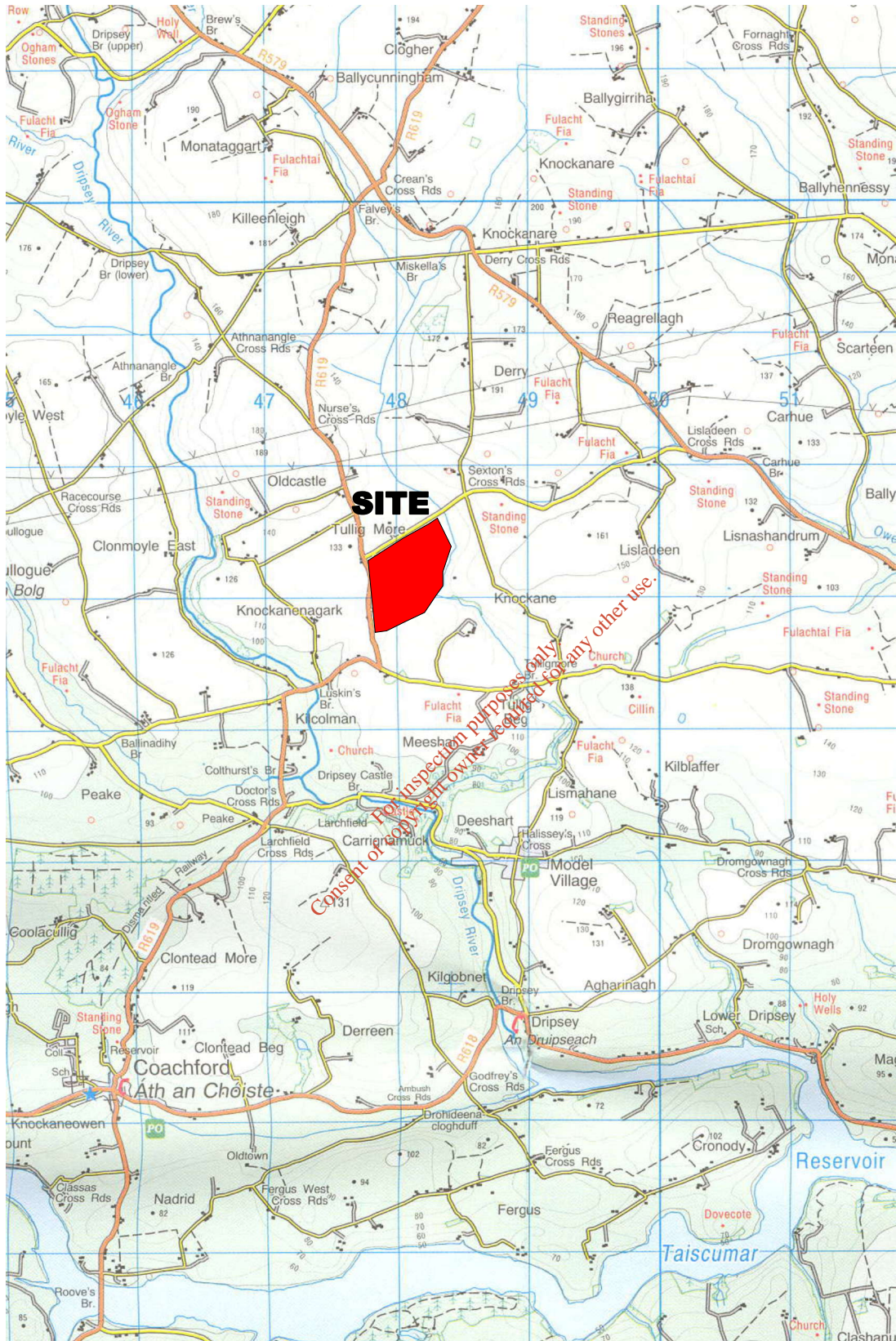
The site is located in a rural setting and the surrounding lands are mainly used for agricultural purposes; however there is a sand and gravel quarry, approximately 100 m to the west of the site.

There are twenty seven (27) private residences within 500 m of the site. Ten (10) of these are within 250 m of the site boundary. The nearest dwellings are on the western site boundary, three (3) of which are within 20 m of worked out areas and directly overlook the site. The villages of Coachford and Dripsey are approximately 3 km to the south west and south respectively.

### 2.3 Site Layout

The entire area has been quarried, with excavations extending up to the site boundaries. There are exposed sand and gravel faces along the northern, western, southern and south eastern boundaries. There are stock piles of subsoils and unsuitable granular material, and settlement lagoons in the central, western and south-eastern areas. The central and northern portions have been graded to a generally uniform level.

Sand and gravel extraction is currently on-going in the south of the site. Materials are not excavated below the water table. Water is abstracted from a large sump in the south west of the site for use in the on-site washing plant, which is located in the south central area. The Site Layout Plan is shown on Drawing No. 0513902, which includes weighbridge, maintenance building, fuel storage tanks, sand and gravel processing area, the C&D inspection and quarantine area, the C&D materials processing area, the proposed internal access road and a general outline of the proposed reinstatement stages and excavation phases.



O' Callaghan Moran & Associates,  
 Granary House, Rutland Street,  
 Cork Ireland.  
 Tel. (021) 4321521 Fax. (021) 4321522  
 email : info@ocallaghanmoran.com

CLIENT

O'Regans

TITLE

Site Location Map

Details

O.S. Licence Agreement  
 Number AR 0038702

Ordnance Survey Ireland,  
 Government of Ireland.

FIG. No

2.1

Scale

NTS

Rev.

A

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## 2.4 Site Facilities

The site entrance is off the R619 and there is a paved access road (tarmacadam) leading from the entrance to the site offices and processing plant. The offices (portacabins), toilet and canteen and a weighbridge are located adjacent to the processing plant. Site services include telephone and fax and a three-phase electricity supply. Water for the site offices is obtained from an on-site well, which is located in the south east of the site. Foul sewage from the toilets is treated in an on-site septic tank located adjacent to the offices.

There is a vehicle and plant maintenance building (approximately 380m<sup>2</sup>) in the centre of the site, where trucks and plant items are serviced and repaired. Fuel and oils (road and plant diesel and waste oils) are stored in two aboveground bunded storage tanks to the east of the building.

## 2.5 Surface Waters

The site is in the catchment of the Dripsey River, which is a sub-catchment of the River Lee. The main channel of the Dripsey is approximately 1 km to the south west. An unnamed tributary of the Dripsey forms part of the eastern site boundary.

Much of the northern and eastern area of the site has been graded to a relatively uniform level. Ponds and drainage channels have been formed in the central and western areas. Surface water run-off from the northern and central areas, which are underlain by the silty sands, flows via a series of drainage channels to a sump in the south of the site. Following periods of persistent rainfall, surface water accumulating in the central area of the site is pumped to the settling lagoons along the north east boundary to facilitate vehicle access.

Rainfall runoff from existing buildings and paved areas overflows and either percolates to ground or is directed to the sump in the south of the site. Rainfall runoff from the waste inspection area is collected in an underground storage tank.

## 2.6 Geology and Hydrogeology

### *Soils*

The topsoil and subsoils have been extracted across the entire site and all topsoils have been removed. The remaining *in-situ* subsoils are fluvio-glacial in origin and consist of a mixture of silts, sandy gravels and boulder clay that ranged from 9 - 17 m in thickness.

## *Bedrock*

The bedrock locally comprises Devonian purple mudstone and sandstone belonging to the Ballytrasna Formation.

## *Hydrogeology*

The sands and gravels are water bearing and that the overlying sandy/silts were acting as a confining layer. Incident rainfall in the northern and central parts of the site, which are underlain by the sandy silts flows via manmade drainage channels to a lagoon in the southern part of the site. Rainfall on other areas, where the layer of sandy silts is absent, infiltrates to ground and recharges the local groundwater system. Groundwater movement is from northwest to south east towards the River Dripsey, and probably being influenced by the onsite abstraction for use in the washing plant.

The GSI indicates that the bedrock aquifer is a locally important (**LI**) aquifer that is productive in local zones. There is no mains supply in the area and it appears that all of the houses in the vicinity of the site have their own individual wells which are located in the bedrock. The on-site production well used to provide water to the site offices and welfare facilities is also in the bedrock.

In the central and northern area the silts overlying the gravels are likely to have a moderate to poor permeability (between  $10^{-6}$  and  $10^{-8}$  m/s) and control the vulnerability rating. A thickness of 3 to 5 m of moderate to low permeability subsoil indicates a High vulnerability rating. In the southern area, the gravels are considered to provide additional storage capacity to the underlying bedrock and have a High vulnerability rating.

## **2.7 Quarry**

Sand and gravel extraction is on-going in the southern area. The extracted materials are washed and screened in the on-site screening plant, which is located in the south central area. The gravels are stockpiled on-site pending removal using heavy goods vehicles to point of sale. Boulders, which are occasionally encountered during the extraction works, are crushed on-site using a mobile crusher and screened using a mobile screener to produce a saleable product.

Washwater from the screening plant is obtained from a sump excavated in the south western part of the site. The washwater is pumped from the screening plant to ponds in the north east of the site, where solid materials settle out. There is one discharge point from the settlement ponds at the eastern boundary of the site to an unnamed stream which flows adjacent the sites eastern boundary. This discharge is seasonal and facilitates the control of surface water levels in the part of the site where the silts prevent infiltration of rainfall.



## 2.8 Waste Activities

### *C & D Recycling*

The facility will accept only pre-segregated non-hazardous materials - concrete rubble, bricks, tiles, soils and stones. The recycling processing area occupies a footprint of ca. 2.5 ha and will comprise a hard standing area progressively extended using the incoming C&D materials. The plant and equipment currently employed at the site will be used to process the C&D materials and a maximum of 180,000 tonnes will be processed annually.

Suitable recovered material will be sold for use as aggregate in block manufacture; the manufacture of mortar and road construction. The materials will comply with relevant quality standards and specifications that deal with the use of recycled products. Recycled materials, which are not sold will be used to construct site haul roads and the construction of retaining berms.

### *Reinstatement Works*

The long term end use for the reinstated areas is agriculture. It is proposed to progressively re-instate portions of the site starting in the north west (Stage 1) (Drawing No. 0513902). Subsequent reinstatement will extend along the boundary towards a perimeter screening bund in the north east (Stage 2) (Drawing No. 0513902). The final Stage will be carried out in the south of the site (Stage 3) although at this time it is not possible to determine the final restoration profile or landscape arrangements. These will be agreed with the Agency following the restoration of Stages 1 and 2.

As the materials used in the reinstatement works will be inert and the proposed end use is agricultural it is not envisaged that a long term aftercare maintenance and monitoring programme will be required, other than good agricultural practices. This will be confirmed with the Agency upon the completion of each Stage of the reinstatement programme.

The reinstatement materials will be brought to the working area in HGVs, off-loaded and placed using a dozer. The final top 300 mm will comprise topsoils. The topsoil placement will not be carried out in periods of persistent wet weather to avoid ground compaction. Following the completion of each Stage, the finished landform will be planted with a mixture of grasses that are suitable for animal grazing according to best agricultural practices. Internal field boundaries may be established using stock proof fencing.

## 2.9 Site Access

The site entrance is off the R619 and the main approach routes are along the R619 from the north and south. The R619 junctions with the R618 at Coachford, and with the N22 to the south of Coachford. A county road links the R619 to the R579 approximately 3 km to the north. The main access routes to the site from Cork City are via the R579 or N22 connecting to the R619. The main access from the north and south is the R619 and from the west is the R618.

## 2.10 Consumables

Table 2.1 presents the maximum quantities of consumable materials that can be stored on site. There are three (10,000 litre plant diesel, 12,000 litre road diesel and 1,000 litre waste oil) oil storage tanks located in the bund to the east of the maintenance building. Engine and hydraulic oils are stored in barrels located on banded pallets inside the maintenance building.

**Table 2.1 Consumables**

<b>Resources</b>	<b>Quantities</b>
Road and Plant Diesel	22,000 litres
Waste Oil Tank	1,000 litres
Hydraulic and Engine Oil	400 litres

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### **3. OPERATIONS**

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#### **3.1 Waste Acceptance & Operational Hours**

Condition 1.7 of the Licence sets the Waste Acceptance Hours and Hours of Operation. Waste can be accepted between the hours of 08:00 and 1830 Monday to Friday inclusive (excluding Public Holidays), and between 08:00 and 14:00 on Saturdays, unless otherwise agreed by the Agency. The facility can be operated only between the hours of 07:30 to 1830 Monday to Friday inclusive (excluding Public Holidays), and 0730 to 14:00 on Saturdays, unless otherwise agreed by the Agency.

#### **3.2 Management Structure**

Site staff includes the Facility Manager, Deputy Manager and machine operators. O'Regan's will ensure that the staff are provided with the appropriate training to ensure that the facility is managed in accordance with the Licence conditions and in a manner that does not result in environmental pollution. The Facility Manager has attended the FAS Waste Management Training Course and the Deputy Manager will complete the course in 2011.

#### **3.3 Operational Procedures**

O'Regan's has developed the following Operating Procedures:-

- Waste Acceptance & Handling (SOP 001);
- Fuel/Oil Storage (SOP 002);
- Emergency Response (SOP 003);
- Awareness & Training (SOP 004);
- Corrective Action (SOP005);
- Facility Operation (SOP 006);
- Environmental Monitoring (SOP 007);
- Reports (SOP 008).

### 3.4 Waste Types and Volumes

The facility can accept 280,000 tonnes per annum of the waste types specified in Schedule A of the Licence: -

17 05 04 Soil and stones other than those mentioned in 17 05 03

17 01 01 Concrete

17 01 02 Bricks

17 01 03 Tiles and ceramics

17 01 07 Mixture of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06

### 3.5 Plant & Machinery

The plant and equipment use to process the sand and gravels are used to process the C&D wastes and these are listed in Table 3.1: -

**Table 3.1** Plant List

Plant Item
3 Excavators
3 Front End Loaders
2 Dumpers
2 Washing/Screening Plant
1 Bulldozer
1 Mobile Screen
2 Mobile Crushers

These provide 100% duty and 50% standby processing capacity. If there is a break down, additional plant can be hired-in for short periods to ensure continued site operations.

### 3.6 Waste Acceptance Procedures

It is expected that the majority of the materials accepted at the site will have been pre-segregated at the point of generation, in line with best practice in the construction industry. However, it is probable that occasional stray wastes (gas cylinders, empty paint tins, plastic), not suitable for processing, will be present.

It is anticipated that the majority of the C&D materials delivered to the facility will be in O'Regan's vehicles. The remainder of the materials will be delivered either by waste contractors with a valid waste collection permit, or those exempt from the permit process (i.e. producers). Casual deliveries from householders will not be accepted. This will minimise the risk of the delivery of unsuitable material.

All waste delivery vehicles are weighed at the weighbridge and accompanying documentation checked by the weighbridge operator to confirm that the material is suitable for acceptance. The following details are recorded:-

1. Date;
2. Vehicle registration number;
3. EWC code number;
4. Place of origin;
5. Weight of delivery;
6. Signature of delivery person counter signed by site staff.

Any delivery which, upon inspection, is found to contain large quantities of unsuitable materials e.g. domestic waste, paper and plastics, will not be accepted. In such event the weighbridge operator will record the name of the waste delivery contractor, the driver, the registration number of the vehicle and the nature and origin of the waste. The operator will instruct the vehicle driver to return the waste to the producer. Records of any such incidents will be maintained on-site.

Clean soils and stones will be directed to the active reinstatement areas, where the materials will be off-loaded and graded using a dozer. The dozer operator will inspect the soils and any stray contaminants e.g. timber, plastic will be manually removed and brought to the quarantine area. All other materials will be off-loaded at the C&D recycling area, where a further inspection will be carried out. Any materials identified as not suitable will, where practical, be returned to the delivery vehicle. If this is not practical the material will, depending on its nature (e.g. gas canisters, metal), either be stored in the quarantine area or be placed in the containers (skips) used to store stray contaminant.

In the event of the producer or contractor refusing to remove the unsuitable materials O'Regan's will ensure that they are removed off-site and disposed of at an appropriate facility as soon as practical. O'Regan's will also ensure that the stray contaminants removed from the incoming materials are sent to appropriate off-site recovery/disposal facilities. O'Regan's will maintain records of the waste type, quantity and destination of the materials.

### **3.7 Materials Processing**

The C&D waste will be screened to recover the fine fraction e.g. subsoil and topsoil, which will be used in the reinstatement works. The larger fraction concrete rubble, brick etc will be crushed to produce an inert recycled aggregate.

It is expected that the majority of the recycled aggregate will meet the relevant construction quality standards and will be sold as products. Any materials not sold will be used in the construction of site haul roads and berms.

### **3.8 Quality Testing**

The objective of the C&D processing is to sell the recycled materials as building products. These, depending on the quality, can be used in concrete and mortar products, roads construction and earthworks. Recycled aggregates (RA) comprise crushed, graded inorganic particles processed from materials that have been previously used in construction, e.g. crushed concrete and masonry. RA are graded into the same sizes as natural aggregates and used in exactly the same way.

A specific sub-set of recycled aggregates is recycled concrete aggregates (RCA) where the masonry content is limited to not more than 5%. The performance characteristics of RCA are better than RA and consequently there are fewer restrictions on the use of RCA in concrete. In addition to their use in concrete and mortar, RA can be used as structural fill for roads, unbound pavements and earthworks. The type of aggregate produced at the site will to a certain extent be determined by the C&D inputs. The final end use will be determined by the quality of the RA produced and this will be categorised according to Irish and internationally recognised quality standards.

### **3.9 Wastes Generated**

The wastes generated by site activities include waste oils, sanitary wastewater, silt trap and interceptor cleanings, runoff from the waste inspection area and office and canteen waste. Sanitary waste water discharges to an on site septic tank. The silt traps, wastewater sump and interceptors will be cleaned out regularly and sent to an offsite approved facility. O'Regan's operates a source segregation policy for office and canteen wastes, which are removed for treatment at appropriate facilities.

### **3.10 Environmental Nuisance**

The types of waste accepted are not attractive to birds, vermin and insects.

### 3.11 Emissions

Emissions associated with facility operations include surface water, sanitary wastewater, waste inspection area runoff, noise and dust. The site location, layout and operation are designed to eliminate, or where this is not possible to effectively mitigate any adverse environmental impacts associated with these emissions.

#### *Surface Water*

The seasonal surface water discharge to the adjoining stream is related solely to the quarrying activities. Routine surface water monitoring will be carried out to ensure the discharge complies with the Emission Limit Values set in the Licence.

The only potentially polluting emission to the internal surface water system is from an oil spill or leak. The volume of oil stored at the facility is kept to the minimum required for daily operation. Diesel and waste oils are stored in above ground bunded storage tanks. Engine and hydraulic oil are stored in drums on a bunded pallet inside the Maintenance Building.

#### *Soil and Groundwater*

The only emission to ground is the sanitary wastewater. At present this is discharged to a conventional septic tank and percolation area, which are located to the east of the canteen. It is proposed to replace this with a proprietary treatment system.

Rainfall runoff from the waste inspection/quarantine area is collected in a underground concrete storage tank. The tank will be subject to integrity testing which confirms it is fit for purpose.

Groundwater quality will be monitored in the on-site monitoring wells and the production well. The monitoring conducted to date has established that the water quality is generally good and there is no evidence that facility activities have impacted on the groundwater.

#### *Noise*

The site equipment (diggers, trucks, washing and screening plant, rock crusher and shredder) are sources of noise. The Licence requires that the ambient/environmental noise levels should not exceed 55 dB(A) during the daytime and 45dB(A) during night time hours at the nearest noise sensitive locations.

#### *Dust*

Site activities are sources of dust. Dust mitigation measures include continuous damping down the access road during dry weather conditions, which minimises the potential for wind blown dust.

### **3.12 Environmental Monitoring Programme**

The proposed monitoring locations are shown on Drawing No. 4. With the exception of the groundwater wells, the exact location of the monitoring points will be established by the consultant appointed to conduct the monitoring programme. The Drawing will, if necessary, be amended to reflect the actual positions.

#### *Dust*

Dust monitoring will be carried out at four locations on the property boundary bi-annually using Bergerhoff gauges specified in the German Engineering Institute VDI 2119 document entitled "Measurement of Dustfall Using the Bergerhoff Instrument (Standard Method).

#### *Noise*

Noise will be monitored annually at five on-site locations on the site and at nearest noise sensitive locations. The monitoring is representative of daytime 30-minute L(A)eq and is carried out in accordance with the ISO1996: Acoustics - Description and Measurement of Environmental Noise.

#### *Groundwater*

Groundwater quality is monitored quarterly in the three on-site wells.

#### *Surface Water*

The surface water discharge and the receiving stream will be monitored quarterly when the discharge is occurring.

### **3.13 Safety and Hazard Control**

All site personnel and visitors, including waste collectors, are obliged to comply with O'Regan's safety guidelines. The guidelines regulate access to and from the site and traffic movement within facility. All personnel are provided with and obliged to wear the requisite personal protective equipment (PPE), which includes gloves, safety glasses, steel-toed footwear, overalls, reflective jackets and helmets. Fire extinguishers are provided at the site offices and in the Maintenance Building.

### **3.14 Contingency Arrangements**

O'Regan's has prepared an Emergency Response Procedure and Corrective Action Procedures to ensure a rapid response to any incident by trained staff, which will minimise the impact on the environment of any associated emissions. In the event of a fire/explosion at the facility, the Response Procedure will be activated and the emergency services called to the facility.



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## 4. SCHEDULE OF OBJECTIVES & TARGETS

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O'Regan's has not finalised any long term objectives for the facility and currently assessing market opportunities that may influence these objectives. As the Waste Licence conditions require the Schedule to be reviewed and amended annually, new objectives and targets will be included in the first AER.

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**Table 4.1 Schedule of Objective and Targets 2010**

No	Objective & Target	Method of Achievement	Responsibility	Timescale
1	<b>Maintain and Develop the Environmental Management System</b>	Maintain EMS Documentation on site	Facility Manager	On-going
		Up date procedures to reflect operational and control changes	Deputy Manager	February 2011
		Complete FAS Training Course		
2	<b>Implement Waste Acceptance Procedures</b>	Communicate with customers about the materials that are not acceptable	Facility Manager	On-going
3	<b>Environmental Monitoring</b>	Implement the Environmental Monitoring Programme	Facility Manager	On-going
		Investigate any exceedances of emission limit values	Facility Manager	
4	<b>Resource Management</b>	Prepare Energy & Resource Management Programme	Facility Manager	October 2010
5	<b>Maintenance Programme</b>	Prepare and Implement Plant and Equipment Maintenance Programme	Facility Manager	February 2011

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# **APPENDIX 1**

## Standard Operating Procedures

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<b>O'REGAN'S C&amp;D RECYCLING FACILITY TULLIGMORE, DRIPSEY COUNTY CORK</b>  <b>Waste Licence Reg. W0-255-01</b>	Issued By:	
	Approved By:	
	Ref. No:	SOP 005
	Date:	8 <sup>th</sup> September 2010
	Rev No.	1

## CORRECTIVE ACTION PROCEDURE

### Scope

O'Regan's has prepared Corrective Action Plans (CAP) to ensure that corrective action is taken should specified requirements of the Environmental Management System (EMS) not be fulfilled. This Procedure describes the content and applicability of the CAPs and assigns responsibility for their implementation, maintenance and update.

### Content

The Procedure set out the approach to be taken to identify a non-compliance with the EMS, investigate the root cause, implement corrective actions and report on the non-compliance. They also identify the need to amend the SOPs and provide training or retraining to avoid the recurrence of the non compliance. The CAPs deal with: -

Facility Operation	SOP-006
Environmental Monitoring	SOP-007
Reports	SOP-008

### Responsibilities

It shall be the responsibility of O'Regan's to ensure that the CAPs are implemented. It shall be the responsibility of the Facility Manager to revise and amend the CAP in response to findings of the root cause of a non-compliance.

It shall be the responsibility of the Facility Manager to maintain copies of the most recent CAPs at the facility, ensure that they are available to all relevant site operatives, including O'Regan's sub-contractors, and ensure that all site operatives have a thorough understanding of the CAPs relevant to their roles and areas of responsibilities.

## Applicable Documents

The following documents constitute part of the CAP to the extent specified in each Procedure (unless otherwise specified the latest issue of each document applies): -

Waste Licence Registration No. W0255-01,

Standard Operating Procedures,

Site Inspection Reports,

Environmental Management Plan (EMP),

Emergency Response Procedures (ERP),

Awareness & Training Procedure.

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	Approved By:	
	Ref. No:	SOP 006
	Date:	27 <sup>th</sup> August 2010
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## FACILITY OPERATION

### Scope

This Corrective Action Plan addresses the day to day operation of the facility to ensure that corrective action is taken should the specified requirements of the Environmental Management Programme (EMP) and/or the Waste Licence not be fulfilled.

### Application

The procedure applies to all site operations covered and includes: -

- Materials acceptance and handling,
- Condition of site entrance and access roads,
- Nuisance control, including, dusts and noise,
- Surface water management,
- Site security and environs,
- Complaints,
- Fires,
- Fuel storage,
- Record keeping.

### Responsibility

O'Regan's is responsible for ensuring the facility is operated in accordance with the EMP, the Waste Licence and facility Operating Procedures or any other procedures and plans and reports prepared in compliance with licence conditions.

It is the responsibility of the Facility Manager or nominated Deputy Manager to ensure that all site operatives, including O'Regan's sub-contractors, have a thorough understanding of the EMP, the Waste Licence and the relevant Operating Procedures.

It is the responsibility of all staff, including O'Regan's sub-contractors, to immediately notify the Facility Manager or the nominated Deputy Manager of any actual or potential non-compliance with the EMP and/or Waste Licence conditions.

The Facility Manager or nominated Deputy Manager shall be responsible for implementing a corrective action where site operations are identified as not meeting the objectives of the EMP or the Waste Licence Conditions. In implementing the corrective actions, the Facility Manager or nominated Deputy Manager shall have regard to the facility Emergency Response Procedures to ensure that the proposed actions do not present a risk to Health and Safety.

## **Corrective Action**

Where a non-compliance is identified, either by site personnel during daily operations, routine inspections by the facility personnel or in the investigation of a complaint by a member of the public, the Facility Manager or nominated Deputy Manager will immediately initiate action to bring operations into compliance.

The scope and extent of the corrective actions will be based on the nature and scale of the non-compliance, the objectives of the EMP and relevant Licence Conditions. The corrective actions will, at a minimum, be sufficient either to immediately rectify the non-compliance or minimise environmental risk pending completion of required works.

If the non-compliance constitutes an incident which might result in environmental pollution the Facility Manager or nominated Deputy Manager shall initiate any environmental monitoring considered necessary to evaluate environmental pollution.

If the non-compliance constitutes an incident requiring notification to the Agency or other regulatory bodies, the Facility Manager or nominated Deputy Manager shall notify the Agency and regulatory bodies in accordance with the Reporting Procedure and the Waste Licence Conditions.

The Facility Manager or nominated Deputy Manager shall monitor implementation of the corrective action to ensure that actions are carried out and are effective.

Following the completion of the corrective action the Facility Manager or nominated Deputy Manager will carry out an investigation to identify the root cause of the non-compliance. Where the cause is the result of inadequate or improperly applied procedures or site practices, the Facility Manager or nominated Deputy Manager will review and amend the procedures

and practices to avoid a reoccurrence of the non-compliance. If documented procedures or operational practice sheets are amended, the Facility Manager shall ensure that the superseded documents are destroyed.

If the cause of the non compliance is due to a lack of understanding of operational practices, the EMP, or licence conditions the Facility Manager or nominated Deputy Manager shall ensure that the site staff, including O'Regan's sub-contractors, receive the necessary instruction or training to ensure future avoidance of a recurrence of the non compliance.

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## ENVIRONMENTAL MONITORING

### Scope

This Corrective Action Plan addresses the environmental monitoring programme at the facility to ensure that corrective action is taken should specified requirements of the EMP and or the Waste Licence not be fulfilled.

### Application

The Procedure applies to all emissions, environmental impacts and monitoring of emissions and environmental media covered under the EMP and Waste Licence Conditions, subject to any written agreements with the Agency and includes: -

Surface water,

Groundwater,

Noise,

Dust.

### Responsibility

O'Regan's shall be responsible for providing the necessary resources to ensure the environmental monitoring programme is carried out in accordance with the EMP and the Waste Licence conditions.

It is the responsibility of the Facility Manager or nominated Deputy Manager to have a thorough understanding of the requirements of the EMP, Waste Licence, and Operating Procedures in relation to environmental monitoring.

The Facility Manager or nominated Deputy Manager will be responsible for arranging for the implementation of the specified environmental monitoring programme.

The Facility Manager or nominated Deputy Manager will be responsible for implementing corrective actions in the event that monitoring identifies an emission that exceeds emission limit/trigger level or where operations are identified as impacting on the receiving environment.

## **Corrective Action**

Where in-situ monitoring, identifies an impact on the receiving environment, the Facility Manager or nominated Deputy Manager will be immediately informed. The Facility Manager or nominated Deputy will carry out an inspection of the area surrounding the monitoring location to identify the source of the impact.

If the source of the impact is identified as an emission from the waste activities, the Facility Manager or nominated Deputy Manager shall be responsible for taking corrective action to isolate the source and identify and execute measures to minimise the effects of the emission.

The Facility Manager or nominated Deputy Manager may, depending on the nature of the impact, instruct the amendment of the routine monitoring programme to include additional monitoring to determine the extent of the impact. The number and location of these monitoring points will be established in consultation with the monitoring personnel.

The Facility Manager or nominated Deputy Manager will notify the Agency using the Incident Notification Report and, in the case of off-site surface water impacts, the Southern Regional Fisheries Board in accordance with the Waste Licence notification requirements.

Where the in-situ monitoring indicates satisfactory conditions, but subsequent laboratory test results indicate an impact by an emission from site activities e.g. surface water or groundwater quality, the Facility Manager or nominated Deputy Manager will carry out a visual inspection of the monitoring points to identify a possible source. If a source cannot be identified the Facility Manager or nominated Deputy Manager may, depending on the nature of the results, either immediately initiate further monitoring or await the following scheduled sampling event to obtain more information on the cause of the impact.

The Facility Manager or nominated Deputy Manager will monitor implementation of the corrective action to ensure that actions are carried out and are effective.

Following the completion of the corrective action the Facility Manager or nominated Deputy Manager will investigate and document the cause of the emission. The Facility Manager or

nominated Deputy Manager will submit a report on the investigation to the Agency in accordance with the Waste Licence notification and reporting requirements.

Where the cause is the result of failure or inadequacy of the design or implementation of specified engineering works, O'Regan's shall ensure that the design or construction deficiencies are rectified to avoid a reoccurrence of the non-compliance.

Where the cause is the result of inadequate or improperly applied procedures or site practices the Facility Manager shall review and amend the procedures and practices to avoid a reoccurrence of the non-compliance. If documented procedures or work instructions are amended the Facility Manager shall ensure that the superseded documents are destroyed.

If the cause of the non compliance is due to a lack of understanding of operational practices or licence conditions the Facility Manager or nominated Deputy Manager shall ensure that the site operatives, including O'Regan's sub-contractors, receive the necessary instruction or training to ensure future avoidance of a recurrence of the non compliance.

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## Environmental Protection Agency - Incident Report

Facility Name	Address	Waste Licence Number	Send Report To:

### *Classification of Environmental Incident*

Category	Category Description	Type of Incident
Category 1	An environmental incident, which is causing, has caused or could have caused <i>Significant</i> environmental damage or <i>Significant</i> environmental risk or hazard to the public or to the general environment.	<input type="checkbox"/>
Category 2	A minor environmental incident.	<input type="checkbox"/>
Category 3	An environmental incident where there was never at any time any damage injury or significant risk or exposure to hazard to the public or the general environment.	<input type="checkbox"/>

### *Cause of Incident*

Date and Time	Incident Description	Cause of Incident

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### *Remedial Action*

### *Corrective Action*

Signed:

Dated:

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## REPORTS

### Scope

This Corrective Action Plan addresses reporting to ensure that corrective action is taken should specified requirements of the Waste Licence not be fulfilled.

### Application

The Procedure applies to all reports and notifications required under the EMP and the Waste Licence, subject to any written agreements with the Agency.

### Responsibility

O'Regan's shall be responsible for ensuring the resources are provided to complete the required reports in accordance with the schedules specified in the EMP and set in the individual conditions and *Schedule E* of the Waste Licence.

It is the responsibility of the Facility Manager or nominated Deputy Manager to have a thorough understanding of the EMP and Waste Licence Conditions in relation to reporting requirements.

The Facility Manager or nominated Deputy Manager shall be responsible for arranging the completion of the stipulated reports and submission to the Agency within the timeframe set in the EMP and the Waste Licence.

The Facility Manager or nominated Deputy shall be responsible for implementing corrective actions in the event that reports will not be prepared or submitted to the Agency within the specified timeframe.

## **Corrective Action**

If the Facility Manager or nominated Deputy Manager identifies that a report will not be prepared and submitted to the Agency by the scheduled date he (she) shall identify the cause of the delay.

The Facility Manager or nominated Deputy Manager will inform the Agency in writing that the report will not be submitted by the due date. This notification will be submitted to the Agency preferably before, but at a minimum no later than the report due date.

The Facility Manager or nominated Deputy Manager will include in the written notification the reason(s) for the failure to submit the report on time and provide a revised submission date for the Agency's agreement.

Following the submission of the report the Facility Manager or nominated Deputy Manager shall review that particular report preparation process to identify the root cause of failure to meet the deadline. Based on the review the Facility Manager or nominated Deputy shall if necessary revise the report preparation process to avoid a recurrence of the non-compliance.

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## **AWARENESS AND TRAINING PROCEDURE**

### **Scope**

O'Regan's has prepared this Awareness and Training Procedure (Procedure) to ensure that the awareness and training needs of all relevant facility personnel are identified and the required training provided.

### **Application**

This Procedure applies to all personnel whose work is related to the Dripsey facility, including O'Regan's staff and any subcontractors working at the facility on behalf of O'Regan's.

### **Applicable Documents**

The following documents constitute part of the Procedure to the extent specified. Unless otherwise specified the latest issue of each document applies: -

Waste Licence Registration No. W0255-01,

Standard Operating Procedures,

Site Inspection Reports,

Environmental Management Plan (EMP),

Emergency Response Procedures,

Corrective Action Procedures.

## Responsibilities

It shall be the responsibility of O'Regan's to ensure that this Procedure is implemented.

It shall be the responsibility of the Facility Manager and/or nominated Deputy Manager(s) to identify training needs and arrange for the provision of the appropriate awareness and training programmes to all relevant personnel.

It shall be the responsibility of the Facility Manager and/or nominated Deputy Manager(s) to maintain written records of all awareness and training programmes received by site personnel.

## Programmes

The Facility Manager shall identify the awareness and training needs of all personnel by means of Management Structure documents and the Training Evaluation Matrix. The Management Structure document assigns responsibilities to site personnel. The Matrix sets out positions, training needs and a programme delivery timeframe.

The Facility Manager or nominated Deputy Manager(s) will arrange for the delivery of the awareness and training programmes. The programme may include internal training provided by O'Regan's personnel who have the necessary skills and experience to deliver the programmes, and external training provided by appropriately experienced and recognised training organisations.

The programmes shall include education and instruction on: -

Compliance with Waste Licence conditions, Operating Procedures and EMP objectives and targets relating to site operation,

Awareness of the implications of non compliance with EMP objectives and Licence conditions,

Environmental Monitoring Programmes,

Dealing with Complaints,

Corrective Action Procedures,

Health & Safety,

Emergency Response Procedures.



The Facility Manager or Nominated Deputy Manager(s) shall ensure that all personnel receive the required training and shall maintain records of training provided. The records shall include the names of the trainees, the date of the training and the topics covered.

The Facility Manager shall review and amend the awareness and training programmes based on the corrective action investigation of non-compliances.

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## Awareness & Training Matrix

**Date:**

Programme	Scope	
	Person Affected	Frequency
Operations	All personnel.	Annual.
Environmental Monitoring	Facility Manager, Nominated Deputy.	Initial and following licence review.
Complaints	Facility Manager, Nominated Deputy, Receptionist.	Initial and following licence review.
Corrective Action Procedures	Facility Manager, Nominated Deputy.	Initial and following any licence amendments.
Health & Safety	All personnel.	Initial and following any licence amendments.
Emergency Response Procedures	All personnel.	Initially and following any procedure amendments.

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## FUEL/OIL STORAGE

### Scope

Ensure that fuel/oil is stored and used in a manner that does not lead to environmental pollution.

### Responsibility

The Facility Manager (FM) shall be responsible for implementing this procedure. Site staff are responsible for correctly storing and handling all fuel/oils used on-site.

### Procedure

#### Storage of Fuel /Oils

All fuels must be stored within an impervious bunded storage area. Only designated areas may be used. The bunded area must be capable of holding 110% of the volume of fuel, which could be stored within the bunded area. All tanks and drums shall be labelled to clearly indicate their contents.

Fuel / hazardous liquid storage areas at the include a 10,000 L and 8,000 L diesel tanks and 1,000 L waste oil tank located in a bund to the east of the vehicle maintenance building. The diesel is used to fuel all site owned plant, e.g. excavator, dumper & tractor and the road fleet (trucks). The dispenser pumps are located inside the bund. A bunded storage pallet is provided within the maintenance shed for storage of 205 L drums of engine and hydraulic oils.

Spill containment and clean up equipment is provided and stored in the maintenance building. All spills will be immediately cleaned up and the absorbent material shall be categorised as hazardous waste and stored in a dedicated sealed container pending consignment to an appropriate waste treatment/disposal facility.

## **Delivery of Fuel**

The 10,000 L and 8,000 L Diesel tanks are refilled when required. The refuelling will be supervised by site staff to ensure that any indicants are immediately addressed.

## **Inspections**

Daily checks are to be carried out on the condition of all fuel storage areas and the spill containment equipment and any problems or the need to replenish the equipment shall be brought to the attention of the Facility Manager/Deputy Manager.

## **Water Removal**

Rainwater accumulating in the bund shall be removed at regular intervals to ensure that the required storage capacity is maintained. The water shall be disposed of off-site at an appropriately approved waste treatment facility.

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## WASTE ACCEPTANCE & HANDLING

### Scope

This Procedure has been prepared to ensure that only suitable wastes are accepted at the facility. It based on best practice applied in the recovery and recycling of C&D materials including the draft EPA BAT Guidance Note for the Waste Sector: Waste Recovery and Transfer.

### Waste Types

Only non-hazardous materials - concrete, bricks, tiles, timber, soils and stones will be accepted. Wastes with the potential to give rise to odour, vermin and pest nuisance will not be accepted. The majority of the incoming materials will have been pre-segregated at the source construction sites. However, it is probable that occasional stray wastes (e.g. gas cylinders, empty paint tins, plastic), not suitable for processing, will be present.

The majority of the materials will be delivered in O'Regan's Ltd. vehicles. The remainder will be delivered either by waste contractors who have a valid and up to date waste collection permit, or those exempt from the permit process (i.e. producers). A register of the Waste Contractors who use the site will be prepared, which will include the details of the Waste Collection Permits. Casual deliveries from skip hire contractors or individual householders will not be accepted. This will minimise the risk of the delivery of unsuitable material e.g. plasterboard.

### Waste Acceptance

The delivery vehicles will be weighed on the weighbridge and the materials inspected by the weighbridge operator, who will direct the driver to the appropriate off-loading area, which will comprise:-

C&D Processing Area;  
 Inspection/Quarantine Area;  
 Reinstatement Area.

Any deliveries which, upon inspection at the weighbridge, are found to contain large quantities of unsuitable materials e.g. gypsum, domestic waste, paper and plastics, will not be accepted. In such cases the weighbridge operator will record the name of the waste delivery contractor, the driver, the registration number of the vehicle and the nature and origin of the waste. The operator will instruct the vehicle driver to return the waste to the producer. Records of any such incidents will be maintained on-site and reported to the Council.

Where the weighbridge operator is unable to ascertain the nature of the materials in a load he will instruct the driver to off-load the materials at the waste inspection/quarantine area where they will be inspected. Any materials identified as not suitable will be immediately removed and, where practical, returned to the delivery vehicle. If this is not possible the material will, depending on its nature (e.g. gas canisters, metal), either be stored in the inspection/quarantine area or placed in the containers used to store stray contaminants.

All clean C&D wastes will be off-loaded at the C&D processing area, where a further inspection will be carried out. Site staff will inspect the materials and any stray contaminants e.g. gas cylinders will be manually removed and brought to the quarantine area.

Clean soils and stones will be directed to the active reinstatement areas, where the materials will be off-loaded and graded using a dozer. The dozer operator will inspect the soils and any stray contaminants e.g. timber, plastic will be manually removed and brought to the quarantine area at the end of the working day.

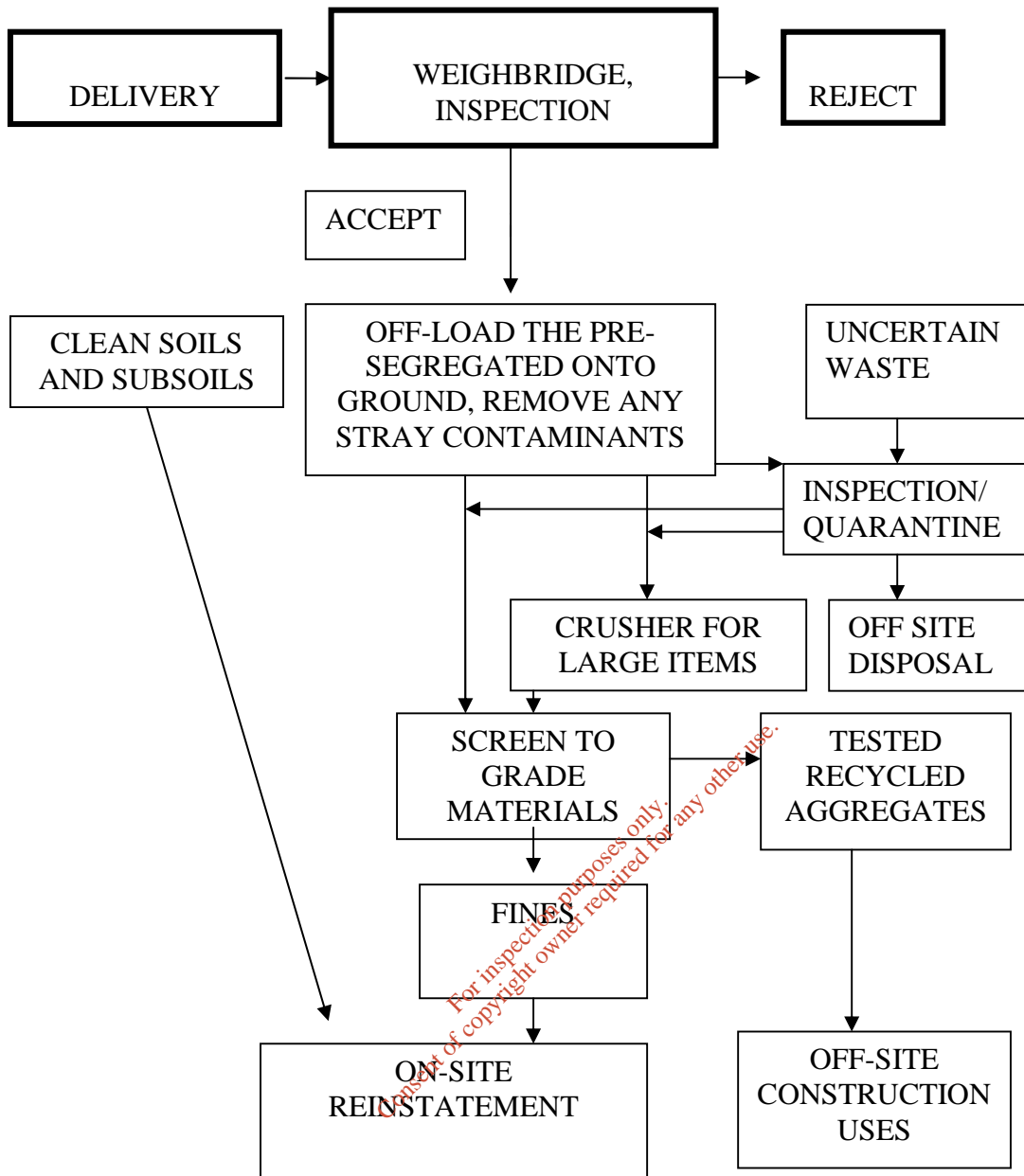
O'Regan's Ltd. will ensure that the stray contaminants removed from the incoming materials are sent to appropriate off-site recovery/disposal facilities and those records of the waste type, quantity and destination of the materials are maintained at the site.

## Materials Handling

Figure 1 is a process flow chart of the handling activities. Timber, which may present, will be manually removed. The material will then pass through a mechanical screen to remove the fine fraction e.g. subsoil and topsoil. This fine fraction will be used on-site for reinstatement purposes. The larger fraction containing concrete, brick etc will pass through a crusher to produce an inert recycled aggregate.

It is expected that the majority of the recycled aggregate will meet the relevant construction quality standards and will be sold as products. The testing criteria that will be applied to determine suitability for use are described in Section 4. Records of all of the materials sent off-site will be maintained. The residual inert materials, which do not meet these standards, will be used on site in the reinstatement works.

**Figure 1** Process Flow Diagram



The worked out areas of the quarry will be reinstated using a combination of non-commercial materials won on-site; inert materials from the on-site C&D recycling that are not suitable for sale, and imported clean soils and subsoils. In the northern area it is intended to raise the levels to those of the road ways that form the western and northern site boundaries. There will be a gentle fall to the south east to encourage field drainage.

### Materials Testing

It is intended to sell the majority of recycled materials as building products. Depending on the quality, which will be established by testing, such materials are suitable for use in the manufacture of concrete and mortar products and use in roads construction and earthworks.

Recycled aggregates (RA) comprise crushed, graded inorganic particles processed from materials that have been previously used in construction, e.g. crushed concrete and masonry. RA are graded into the same sizes as natural aggregates and used in exactly the same way. A specific sub-set of recycled aggregates is recycled concrete aggregates (RCA) where the masonry content is limited to not more than 5%. The performance characteristics of RCA are better than RA and consequently there are fewer restrictions on the use of RCA in concrete.

In addition to their use in concrete and mortar, RA can be used as structural fill for roads, unbound pavements and earthworks. The type of aggregate produced at the site will, to a certain extent, be determined by the C&D inputs.

## Standards

The final end use of the materials produced at the facility will be determined by the quality of the materials produced, which will be categorised in accordance with the following Irish and internationally recognised quality standards.

### Concrete Manufacture

IS EN 206: Part 1: 2002 '*Concrete – Part 1; Specification, Performance, Production and Conformity*' permits the use of recycled aggregate in the manufacture of concrete Ireland. IS EN 12620:2002 '*Concrete Aggregates*' sets out the physical, chemical, mechanical and grading requirements for aggregates (including recycled aggregate) to be used in the manufacture of concrete. I.S. EN 13139 Aggregates For Mortar: describes the properties of RA for use in mortar.

B.S. 8500:2002 Parts 1 and 2, which is the British Annex to supplement BS EN 206. B.S. 8500 and includes guidelines on using recycled aggregates in concrete manufacture. Both IS EN 12620 and B.S. 8500 Parts 1 and 2 are now being revised, and in each the use of recycled aggregates is given further encouragement by widening the range of applications in which recycled aggregates can be used.

### Civil Engineering Works

Guidance on the use of RCA in civil engineering work and road construction is given in BS 13242:2002 '*Aggregates for unbound and hydraulically bound materials for use in civil engineering work and road construction*'. A specification for aggregates (including recycled) are given in Series 800 '*Specification for Highway Works: Road pavements – Unbound, Cement and other Hydraulically bound mixtures*'. Both these documents have formed the basis for similar documentation published by the DELGH and the National Roads Authority (NRA).



## Reinstatement Materials

The processed materials that are not suitable for sale will be used in the on-site reinstatement works. Representative samples of the materials will be collected and tested to confirm that they are inert and suitable for use.

## Testing Laboratories

The RA and RCA will be sampled and sent for testing at an Irish National Accreditation Board Construction Materials Testing Laboratory. The testing methodologies will be as specified in the relevant guidance documents e.g. IS EN 12620:2002 and Series 800 '*Specification for Highway Works*, copies of which are included in Appendix 4. The test results will be maintained on site and provided to customers to confirm that the materials meet the required manufacturing/construction use specification.

The reinstatement materials will be analysed at an ILAB or equivalent accredited testing laboratory. The methodologies used will all be ISO or equivalent. The results will be maintained on site and submitted to the Council annually as required under the Waste Permit.

## Records

The following records will be maintained at the facility:-

- The names and collection permit numbers of the carriers and the vehicle registration numbers,
- The names of the producers of the waste as appropriate, source of the waste,
- A description of the waste including the associated EWC codes,
- The quantities of waste accepted at the site recorded in tonnes,
- The name of the person checking the load,
- Where loads of waste are removed or rejected details of the date of occurrence; the types of waste and the facility to which they were removed to,
- The quantity of waste leaving the facility recorded in tonnes,
- The dates and times of all waste delivered to and from the site.

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## EMERGENCY RESPONSE PROCEDURE

### Scope

The scope is to identify the actions to be taken in response to an emergency. An emergency is defined as an incident or accident that results in injury to employees or the risk of environmental pollution. The main emergency risks associated the facility are fire and spills. The Procedure provides for the minimisation of the effects of any emergency.

### Responsibilities

The Facility Manager is responsible for ensuring that all site staff are aware of the Procedure and for overseeing the response actions, if present on site. In the absence of the Facility Manager, the Deputy Manager is responsible for overseeing the response.

### Emergency

An emergency may include:

- Personnel (staff, customers or visitors) involved in a serious accident,
- Personnel involved in a medical emergency,
- Fires, explosion, fuel/ oil spills.

### General Response Actions

If an employee sees any person in difficulties he/she should: -

Consider own safety - employee may need to withdraw from the area immediately.

Contact the Facility Manager as soon possible.

The Facility Manager will then (not necessarily in the order given): -

Give instructions to the person making the report regarding assistance and possible evacuation of the person in difficulties.

Instruct the Weighbridge Operator to control vehicle entry to the site to prevent traffic problems.

Instruct trained First Aid staff to attend the incident.

Arrange for the evacuation of other personnel if appropriate. This may involve the abandoning of certain vehicles or plant.

Arrange for safe transportation to hospital or the attendance of an ambulance.

Close off any relevant areas of the site and inform the Weighbridge of any temporary arrangements for traffic movement on the site.

Inform the Environmental Protection Agency as appropriate.

Inform the Health and Safety Authority about the incident if appropriate.

Where a person involved in the incident is not a member of our workforce, their employer should be informed as soon as possible.

Take statements from persons witnessing the incident.

A report should be compiled including all the witness statements.

## **Site Closure/Suspension of Site Operations**

Under certain conditions it may be necessary to close the site either partially or completely to customers and/or visitors. Possible situations where site closure may be necessary include: -

Emergency situation/accident on site,

Site fire.

The EPA and other appropriate bodies will be informed of the closure and the reasons. Where possible, customers will be telephoned with as much advance notice as possible to inform them that the site will close. If known, re-opening information will also be given.

## Incident Response

### Explosions & Fires

Due to the type of wastes accepted it is unlikely that waste loads arriving at the site or waste placed at the site are a fire risk. There is the potential for fires in the Maintenance Workshop when welding. Any fires in this area will be controlled by site staff using the fire extinguishers.

The most likely location of a serious fire/explosion on the site is the fuel storage area. In the event of a fire/explosion at this area, the Emergency Services will be called and the EPA notified.

### Overturned Vehicles

If a tipping (or other) vehicle should overturn:

Remove all other vehicles and personnel from the immediate area.

Call for assistance and emergency services as necessary

Inform Facility Manager

Check the location of all personnel and their conditions. Remember to check under and inside the overturned vehicle

If injured parties complain of back/chest/neck pain do not move them unless absolutely necessary as this could cause further injuries. Only move the casualty in situations where they are in immediate danger, for example, fire etc.

Switch off the ignition in all vehicles to reduce the risk of fire.

Check for leaking fuel, fire etc.

If vehicles are on fire, ensure all personnel are clear and retreat to a safe distance. Remember, burning tyres, fuel tanks, air tanks etc can suddenly explode without warning.

Once area is made safe, consult with the Facility Manager to arrange the most suitable method of removing the overturned vehicles.

Once the situation has been stabilised and the overturned vehicle (s) removed the Facility Manager will arrange for an investigation into the incident to be carried out as soon as possible.

## **Fuel/Oil Spillage**

The most likely cause of a minor spill is the overturning of the oil drums in the Maintenance Workshop. The only source of a significant spill is an accident involving vehicles or uncontained release during refuelling or filling of the diesel tanks.

In the case of a minor spill and if safe to do so, contain the spillage using the spill containment equipment. In the case of a large spill place containment booms around the spillage if appropriate. Immediate priority is to prevent contamination of surface water channels and settlement ponds.

Immediately inform the Facility Manager or Deputy Manager, who will then take responsibility for the response actions.

Used containment materials must be placed in a suitable container and stored in a safe location until appropriate disposal can be arranged. As oil contaminated materials are classified as Hazardous Waste, this may involve the use of specialist contractors.

## **Incident Investigation**

All accidents and incidents shall be investigated. The investigation shall include the following:

Full name, address and age of the person(s) involved,

Photographs of the area and/or vehicles and plant involved,

Record date and time of the incident,

Confirm if the person involved had any safety training,

Confirm if the person involved wearing the correct PPE,

If the incident involved vehicles, plant or machinery, was the equipment in a serviceable condition at the time of the incident,

Where the incident gave rise to the risk of environmental pollution confirm the appropriate response actions specified in SOP 002 were carried out.

## Regulatory Contacts

**Emergency Services - Fire Brigade/Ambulance** - To be contacted in the event of serious injury, fire or explosion.

999 or 112

**EPA - Inniscarra** – To be contacted as soon as practical and no later than 10 am the following day in the event of any incident that leads to a breach or potential breach of the Licence conditions.

Phone: 021-4875540

Fax: 021-4875545

**Southern Fisheries Board** - To be contacted in the event of any pollution of an off site watercourse.

Phone: 052 618035

Fax: 052 612391

**Cork County Council, Environment Directorate** - To be contacted in the event of any pollution of groundwater or an off-site water course.

Phone: 021-4532700

Fax: 021-4532722

**Health and Safety Authority** - To be contacted by phone with a follow up fax or on-line report in the event of any reportable injury or incident.

Phone: 1890 289389

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## 1. ACCIDENT PREVENTION POLICY

### 1.1 Scope

This document outlines O'Regan's Quarry Products Ltd overall aims and principles of action with respect to the prevention of accidents and any associated environmental impacts.

### 1.2 Health and Safety Policy

O'Regan's is committed to providing a safe environment to all persons working or visiting the site, including employees, subcontractors, waste contractors and the general public. O'Regan's will comply with all applicable Safety & Health legislation and make available the resources to ensure that appropriate preventative and control measures are provided.

### 1.3 Safety Statement

A Site Safety Statement and supporting Risk Assessments will be prepared to identify and evaluate the major potential on-site hazards on site and describe the control measures provide to eliminative or minimise the risk of accidents occurring. The safety Statement and Risk Assessments will be subject to regular review and amendment to reflect changes in legislation, new work practices and the findings of any accident investigations

### 1.4 Emergency Response Procedure

An Emergency Response Procedure will be prepared that specifies the actions to be taken in the event of an emergency to ensure that the emergency is dealt with in an appropriate manner and that minimises the risk of environmental pollution. The procedure will be reviewed as required to reflect changes in work practices or the findings of any accident/incident investigations.

### 1.5 Training

All staff will be provided with the appropriate training to ensure that they are aware of all potential on-site hazards and the actions to be taken in the event of an emergency.

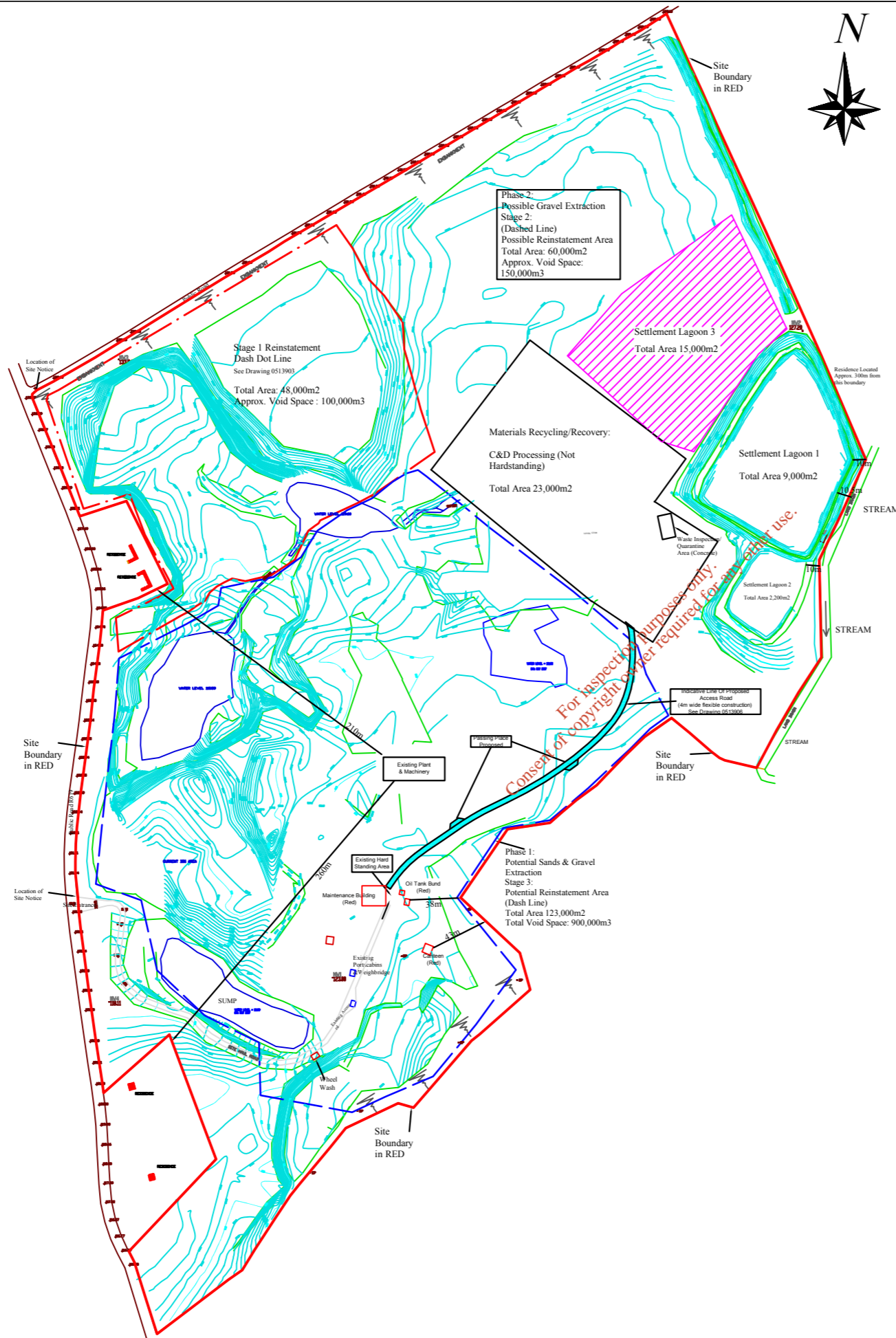
Signed: \_\_\_\_\_

Date: \_\_\_\_\_

# **DRAWINGS**

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NOTES

C	13/09/10	FI ISSUE	MW	JOC	JOC
REV	DATE	DESCRIPTION	DRN	CHKD	APP

**O'Callaghan Moran & Associates.**  
Granary House, Rutland Street,  
Cork, Ireland.  
Tel. (021) 4321521 Fax. (021) 4321522  
email : info@ocallaghanmoran.com

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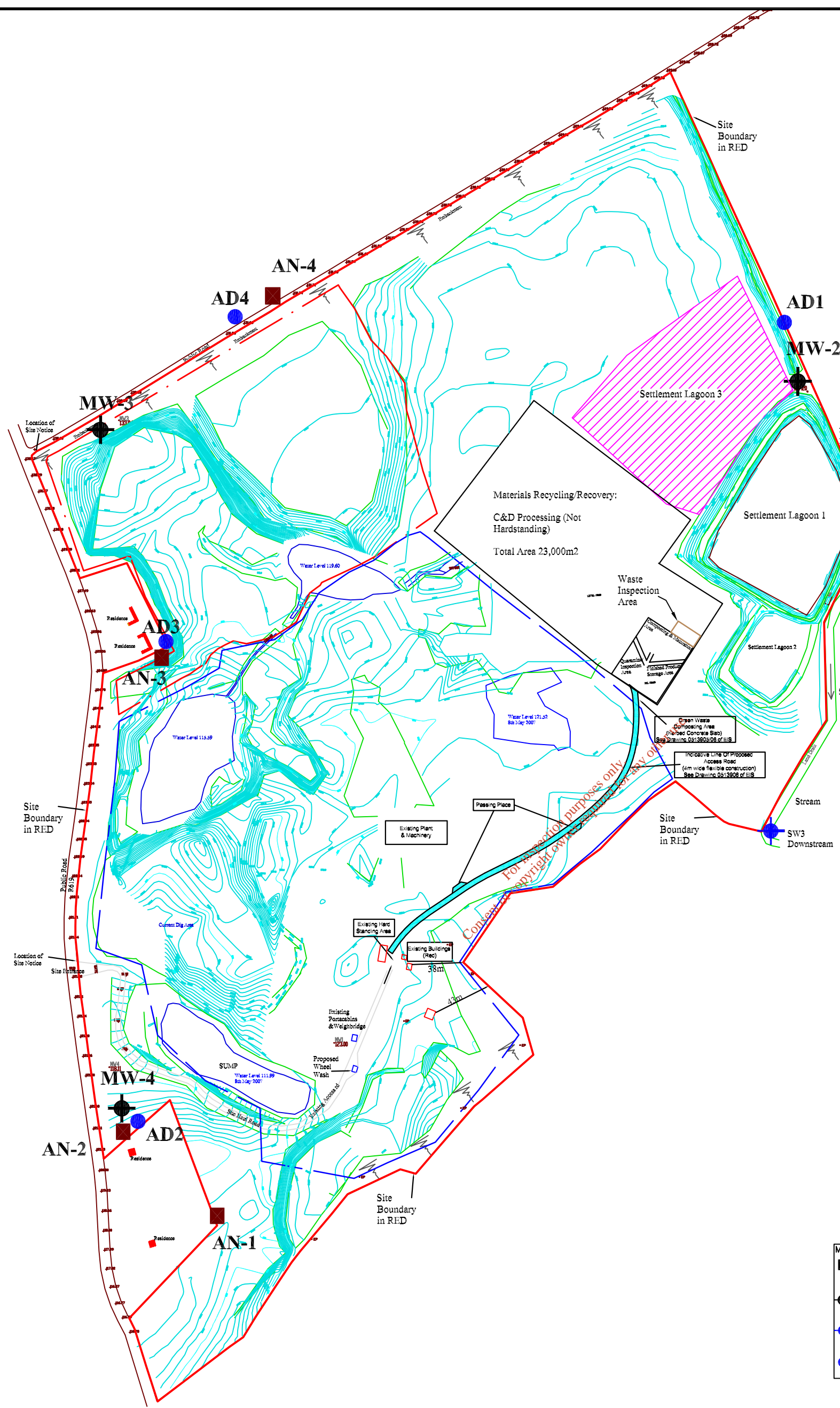
TITLE  
**SITE LAYOUT PLAN MASTER**

SCALE	DRAWING No.	REV.
A3 NTS	0513902 - 5	D

DOS Filename : \*\*\*\*\*



AN-5



No	Id	Eastings	Northings
<b>DUST</b>			
1	AD1	148283	77459
2	AD2	147803	76865
3	AD3	147823	77221
4	AD4	147874	77462
<b>GROUNDWATER</b>			
5	MW-2	148292	77414
6	MW-3	147775	77379
7	MW-4	147791	76875
<b>SURFACE WATER</b>			
8	SW1	148353	77300
9	SW2	148361	77333
10	SW3	148272	77082
<b>NOISE</b>			
11	AN1	147861	76796
12	AN2	147791	76856
13	AN3	147822	77210
14	AN4	147902	77479
15	AN5	148489	77603

**MONITORING LOCATIONS LEGEND:**

- Denotes dust monitoring location
- Denotes groundwater monitoring location
- Denotes surfacewater monitoring location
- Denotes noise monitoring location



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 Granary House, Rutland Street,  
 Cork, Ireland.  
 Tel. (021) 321521 Fax. (021) 321522  
 email : info@ocallaghanmoran.com

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 4

TITLE  
**PROPOSED MONITORING LOCATIONS**

SCALE  
 1:3,000

REV.  
 A

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