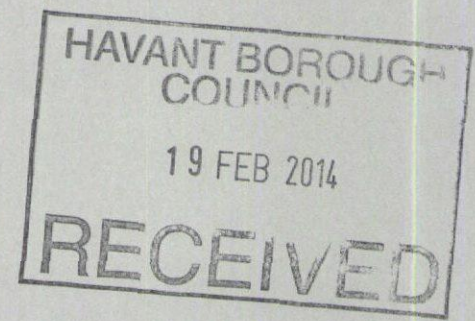
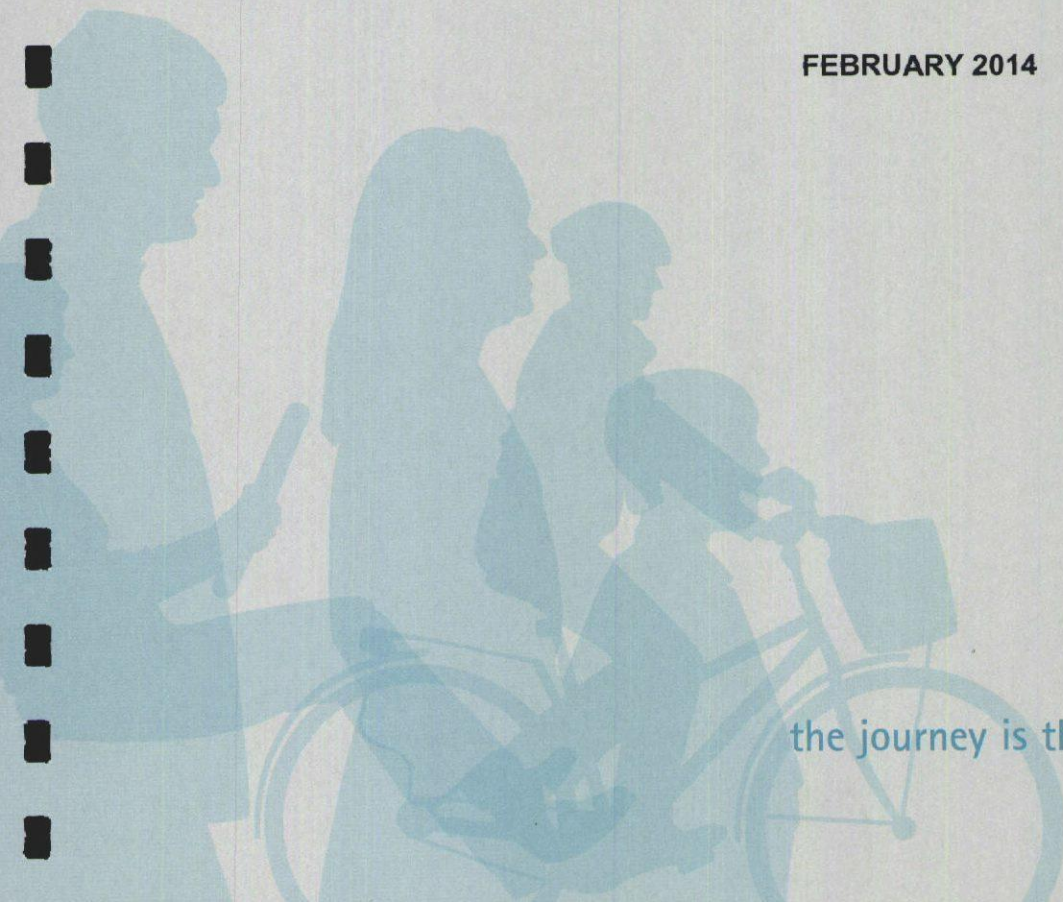




**REDROW HOMES
CONSTRUCTION ENVIRONMENTAL
MANAGEMENT PLAN
BEREWOOD, WATERLOOVILLE,
HAMPSHIRE**

CONDITION 11 CEMP REQUIREMENTS

FEBRUARY 2014



the journey is the reward

**REDROW HOMES
CONSTRUCTION ENVIRONMENTAL
MANAGEMENT PLAN
BEREWOOD, WATERLOOVILLE,
HAMPSHIRE**

CONDITION 11 CEMP REQUIREMENTS

FEBRUARY 2014

Project Code:	RHWATERLOOVILLE.9
Prepared by:	Andrea Hughes
Approved by:	Stuart Aldridge
Issue Date:	FEBRUARY 2014
Status:	FINAL V4

PROJECT MANAGER: STUART ALDRIDGE, TECHNICAL DIRECTOR

[illegible]

REDROW HOMES
CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN
BEREWOOD, WATERLOOVILLE, HAMPSHIRE
CONDITION 11 CEMP REQUIREMENTS

List of Contents

Sections

1	Introduction	1
2	Condition 11 Requirements	3

Appendices

- APPENDIX A: CONSTRUCTION TRAFFIC ROUTING PLAN
- APPENDIX B: PROPOSED SITE COMPOUND
- APPENDIX C: APPROPRIATE SITE MANAGEMENT TECHNIQUES
- APPENDIX D: PROGRAMME OF WORKS
- APPENDIX E: REDROW SITE WASTE MANAGEMENT

1 Introduction

1.1 A detailed Construction Environmental Management Plan (CEMP) has been produced and approved for the Phase 2 infrastructure works at the Berewood site. It is this intention that this update CEMP is a continuation of the infrastructure CEMP and will include for the specific RMA conditions set out in the Winchester City Council Decision.

1.2 The following condition 11 relates to the requirements of the RMA CEMP.

"No development within a reserved matters area shall take place until a Construction Environmental Management Plan (CEMP) which should be in accordance with the ecological mitigation measures set out in Environmental Statement and the ecological mitigation plan submitted for that Reserved Matters Application, has been submitted for each particular reserved matters application, and approved by the Local Planning Authority, to include details of:

- i. construction traffic routes in the local area;
- ii. parking and turning of operative, construction and visitor vehicles;
- iii. loading and unloading of plant and materials;
- iv. piling techniques;
- v. storage of plant and materials;
- vi. programme of works (including measures for traffic management);
- vii. all deliveries and building works which should only be carried out between the hours of 0800 and 1800 hours Monday to Friday and 0800 and 1300 hours Saturday and no time on Sundays or recognised public holidays;
- viii. provision of boundary hoarding and lighting including construction lighting;
- ix. protection of trees, hedgerows and other natural features to be retained including their management until such time as they are adopted;
- x. details of proposed means of dust suppression and noise mitigation;
- xi. measures to protect the listed building as necessary;
- xii. details of measures to be taken to prevent mud from vehicles leaving the site during construction;
- xiii. measures to prevent pollution of the watercourse during construction;

- xiv. the handling and management of construction waste;
- xv details of surface water runoff; and
- Xvi construction lighting.

2 Condition 11 Requirements

- 2.1 The following sets out how these requirements have been achieved for the Phase 2 application, where they are applicable:

Requirement

i. construction traffic routes in the local area

Response

"A Construction Traffic Routing Plan was produced to control the impacts of the Phase 2 infrastructure works. This will be applied to the detailed works. The Construction Traffic Routing Plan is reproduced here in Appendix A."

Requirement

ii. parking and turning of operative, construction and visitor vehicles

iii. loading and unloading of plant and material

Response

"A plan of the proposed site compound is included in Appendix B. This demonstrates suitable space for the parking and turning of operative and visitor vehicles, and the loading and unloading of plant and material".

Requirement

iv. piling techniques

Response

"Two set of piling works have been identified. One involves rotary piling associated with the provision of support for the proposed bridge. Rotary piling techniques are not associated with excessive levels of noise. The second is a small amount of sheet piling for the construction of the temporary pumping station. This is anticipated to be of short duration and not in close proximity to residential areas."

All construction works will be undertaken in accordance with the requirements of the Phase 2 Infrastructure CEMP within Appendix A (reproduced here in Appendix C) and the measures set out within the Infrastructure CEMP Mitigations Matrix in Section 5."

Requirement

v. storage of plant and materials

Response

"As above (ii, iii) a plan of the proposed site compound is included in Appendix B. This demonstrates the locations for the storage of plant and materials. All materials will be stored in accordance with the requirements of Phase 2 Infrastructure CEMP within Appendix A (reproduced here in Appendix C – Section 3 specifically). Measures are also set out within the Infrastructure CEMP Mitigations Matrix in Section 5, as set out below:

- Where any pesticide use is required, refer to the strict requirements for notification of relevant bodies, secure storage, transportation, use and competences required, as set out in the Landscape Maintenance and Management Plan;*
- All materials and spoil to be stored on site to be sheeted or damped down as appropriate in dry weather to reduce dust.;*
- Stockpiling to be in accordance with best practice as in PPG6 or equivalent;*
- Stockpiles of materials not suitable for on-site re-use to be removed as soon as is practicable in accordance with applicable waste management legislation;*
- Fuels and chemicals to be stored in accordance with PPGs 1,2,7. or equivalent;*
- All tanks and containers to be labelled with nature of contents and total volume secured;*

- *Storage and delivery facilities to be on impermeable surface in a secondary containment system; use of bowzers to be restricted to relatively immobile plants;*
- *There is to be provision of spill kits at all storage areas & provision of emergency response numbers;*
- *All deliveries to be supervised and levels of tanks checked before delivery;*
- *Stockpiles to be sited so as not be subject to inundation during extreme rainfall events;*
- *Contingency plan required for temporary covering of stockpiles during adverse weather conditions;*
- *Sorted & screened material to be placed on a prepared clean granular surfacing;*

Requirement

- vi. Programme of works (including measures for traffic management);**

Response

"An outline programme of works is included in Appendix D. At this stage measures for traffic management are not included. However, these will be provided within a more detailed programme of works to be submitted prior to commencement on site."

Requirement

- vii. all deliveries and building works which should only be carried out between the hours of 0800 and 1800 hours Monday to Friday and 0800 and 1300 hours Saturday and no time on Sundays or recognised public holidays.**

Response

"This requirement is written into the Phase 2 Infrastructure CEMP within Appendix A (reproduced here in Appendix C) and within the Infrastructure CEMP Mitigation Matrix in Section 5."

Requirement

- viii. provision of boundary hoarding and lighting including construction lighting**

Response

"These requirements are written into the Phase 2 Infrastructure CEMP within Appendix A (reproduced here in Appendix C - Sections 2 and 5 respectively).

'The location of site hoarding will be agreed with Havant Borough Council before works commence on site. All existing site hoarding will be maintained until this time.'

Requirement

- ix. protection of trees, hedgerows and other natural features to be retained including their management until such time as they are adopted.**

Response

"The protection and management of site ecology and other natural features until such time as they are adopted, is set out within the Phase 2 Infrastructure Landscape Management Plan."

Requirement

- x. details of proposed means of dust suppression and noise mitigation.**

Response

"These requirements are written into Appendix A of Phase 2 Infrastructure CEMP (reproduced here in Appendix C - Sections 3 and 2 respectively) and within the Infrastructure CEMP Mitigation Matrix in Section 5 as set out below:

- Site roads to be swept and sprayed with water to prevent dust nuisance.
- Recycling activities that have the potential to generate dust (e.g. concrete crushers) to be sited in such a way to minimise dust nuisance to sensitive receptors.
- Activities found to be generating dust in conditions where dust being spread may affect the public to be stopped, rescheduled or mitigated.
- All supervisors to be familiar with the provisions of BRE Report 456: "Control of dust from construction and demolition activities"
- All plant to be fitted with diesel particulate filters.
- Site vehicles to be preferentially sought to have vertical exhausts to limit surface dust re-suspension.

- All vehicle drivers to be acquainted with agreed haulage routes selected to minimise any air quality impact arising from additional lorry movements.
- All supervisors to be familiar with provisions of BS5228, & advised on noise minimisation.
- Noise levels to be set at 75dB in the working week which will be between 0800 & 1800 on weekdays and 0900 & 1300 on Saturdays.

Silencers or mufflers as appropriate to be fitted to plant and machinery

Any specific activity related measures will be discussed in site meetings and recorded within Method Statements and Action Plans."

Requirement

xi. Measures to protect the listed building as necessary

Response

"No listed buildings are included within the Phase 2 works."

Requirement

xii. details of measures to be taken to prevent mud from vehicles leaving the site during construction.

Response

"These requirements are written into the Phase 2 Infrastructure CEMP within Appendix A and reproduce here in Appendix C (Section 3 specifically).

Measures are also included within the Infrastructure CEMP Mitigation Matrix in Section 5.

- *All vehicles leaving the site where necessary to be subjected to wheel washing*

Any specific activity related measures will be discussed in site meetings and recorded within Method Statements and Action Plans."

Requirement

xiii. measures to prevent pollution of the watercourse during construction

Response

"These requirements are written into the Phase 2 Infrastructure CEMP within the Infrastructure CEMP Mitigation Matrix in Section 5 and include:

- A system of temporary drainage to be installed to ensure that no polluted surface runoff enters the River Wallington. Any surface water collected to be directed via treatment before discharge;*
- Any existing surface water drains to be bunded to ensure that no surface water enters them."*

Requirement

xiv. the handling and management of construction waste;

Response

"These requirements are written into the Phase 2 Infrastructure CEMP within Appendix A (reproduced here in Appendix C - Section 6 specifically).

Redrow's detailed Waste Policy is also included in the Phase 2 Infrastructure CEMP within Appendix Q (reproduced here in Appendix F)"

Requirement

xv. details of surface water runoff;

Response

"See response to requirement xiii."

Requirement

xvi. construction lighting.

Response

"See response to requirement viii."

APPENDIX A: CONSTRUCTION TRAFFIC ROUTING PLAN

BEREWOOD DEVELOPMENT

**Phase 2 Construction Traffic
Management Plan**

January 2013

1st Issue

BEREWOOD DEVELOPMENT

Phase 2 Construction Traffic Management Plan

January 2013

Project Code:	GTWville6.2
Prepared by:	PAS
Position:	Associate
Approved by:	
Issue Date:	January 2013
Status:	1st Issue

BEREWOOD DEVELOPMENT

Construction Traffic Management Plan for Phase 2

Contents

1.	INTRODUCTION.....	1
2.	CONSTRUCTION TRAFFIC ROUTEING AND SITE ACCESS	2
	Delivery Times	3
3.	ENFORCEMENT OF MANAGEMENT PLAN	4
4.	MONITORING AND REVIEW	5

BEREWOOD DEVELOPMENT

Phase 2 Construction Traffic Management Plan

List of Drawings

Drawing Number GTWVILLE6TP01 – Phase 2 Construction Routeing Plan

1. INTRODUCTION

- 1.1 This document sets out a management plan for the Phase 1 construction phase of the Berewood Development, which has outline planning consent, subject to a S106 agreement, for up to 2650 residential units and 19.25ha of employment land.
- 1.2 Phase 2 includes the construction of the second tranche of housing.
- 1.3 Construction vehicles accessing the Phase 2 development will do so via the Milk Lane Access to the development, at the existing junction with London Road.

2. CONSTRUCTION TRAFFIC ROUTEING AND SITE ACCESS

- 2.1 Permitted routeing for Berewood Phase 2 construction traffic is shown in Drawing Number GTWVILLE6TP01.
- 2.2 Construction vehicles travelling to Berewood Phase 2 development site will be required to take the following route from the A3(M):-
- Turn left (if northbound) or right (if southbound) at J3 of the A3(M) onto Hulbert Road (B2150),
 - Head in a north westerly direction, continuing onto the A3 Maurepas Way to the A3 Maurepas Way / B2150 roundabout (Berewood Main Access),
 - Turn left at the A3 Maurepas Way / B2150 roundabout.
 - Turn right at the Maurepas Way / London Road roundabout onto London Road
 - Turn right into the Phase 2 development site at Milk Lane.
- 2.3 Construction vehicles travelling from Berewood Phase 2 development site will be required to take the above route in reverse to the A3(M)

3. DELIVERY TIMES

- 3.1 Construction vehicles are not permitted to make deliveries to the site between the weekday hours of 08:00 and 09:00 and 17:00 and 18:00.

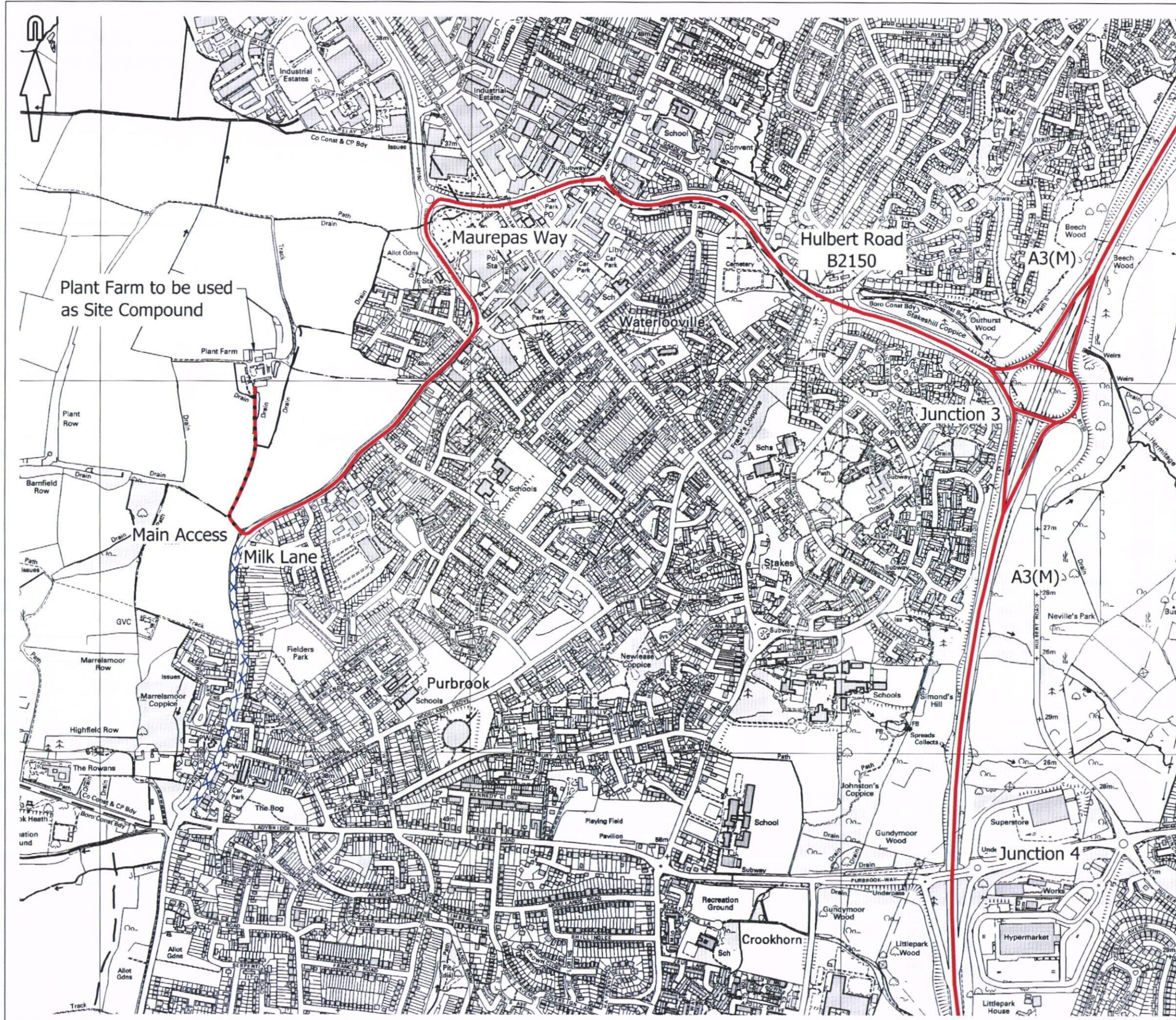
4. ENFORCEMENT OF MANAGEMENT PLAN

- 4.1 Construction traffic accessing the site must adhere to the compulsory routing set out in this document. Construction vehicle drivers who do not comply with these access arrangements will be given a warning for a first offence. Any repeat offender will be banned from accessing the site.
- 4.2 The Contractor will ensure that their employees adhere to this Management Plan.

5. MONITORING AND REVIEW

- 5.1 An appointed personnel (AP) will be required to implement the Construction Traffic Management Plan (CTMP) and undertake daily monitoring and review as part of the Construction Environmental Management Plan processes.

Drawings



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A3 ORIGINAL

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KEY:

- 2-WAY CONSTRUCTION TRAFFIC TO PHASE 2
- ROUTE AVAILABLE TO HOUSE BUILDING CONTRACTORS

XXXX NO CONSTRUCTION TRAFFIC PERMITTED

Notes:

- Purbrook village is a traffic sensitive location and it is a planning obligation that no construction traffic passes through Purbrook village. As such, construction traffic through Purbrook village is forbidden under the contract.

Berewood®

HAMPSHIRE

PRELIMINARY
NOT FOR CONSTRUCTION

rev.	amendment	checked	date
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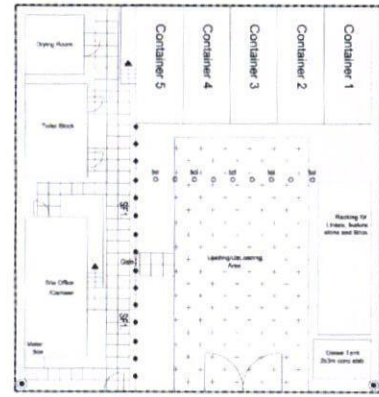
project **BEREWOOD, WATERLOOVILLE
PHASE 2 INFRASTRUCTURE**

scale 1:10000 drawn by NT checked by PAS
date JANUARY 2013 cad file TP_01.dwg

title **PHASE 2 INFRASTRUCTURE
CONSTRUCTION ROUTEING PLAN**

drawing number **GTWVILLE6/TP/01**

APPENDIX B: PROPOSED SITE COMPOUND



TYPICAL COMPOUND LAYOUT (NTS)

REVISIONS

NO.	DESCRIPTION	DATE
1	Issue for approval	16/12/13
2	Issue for construction	16/12/13

CON-COMP-01

REDROW HOMES

Redrow Homes (South) Ltd

100001359

NOTES

Permission is granted to scale from the drawing for the purpose of Local Authority Planning Approval only. In all other circumstances DO NOT scale from the drawing. Please contact the office for any additional information required.

Contractors, Sub Contractors and Suppliers are to check all relevant dimensions and levels of the site and building before commencing any shop drawings or building work. Any discrepancies should be reported to the Architect.

Where applicable this drawing is to be read in conjunction with the Consultants' drawings.

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REV.	DESCRIPTION	DATE	AUTHOR	CHKD
A	Revised in accordance with layout	06/01/14	SC	~
B	Compound Plan added	17/02/14	SC	~

- KEY**
- Site Car Park
 - Material Store
 - Haul Road
 - 1st Compound
 - 2nd Compound

TETLOW KING

ARCHITECTS · URBAN DESIGNERS · SUSTAINABILITY CONSULTANTS

Building 300, The Grange, Romsey Road, Michelmarsh, Romsey, Hampshire, SO51 0AE

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PROJECT

Berewood, Phase 2

Waterlooville, Hampshire

For: Redrow Homes (Southern)

DRAWING

Compound Location Plan -01

SCALE	DATE	AUTHOR	CHKD
1:1000 @ A2	16/12/13	RB/AK	~
JOB NO	DRAWING NO	REV	
REDR130524	CLP-01	B	

APPENDIX C: APPROPRIATE SITE MANAGEMENT TECHNIQUES

1. APPROPRIATE SITE MANAGEMENT PRACTICES

- 1.1 All site works will be carried out using “best practicable means” (BPM) in order to comply with relevant legislation under the Environmental Protection Act 1990 and the Control of Pollution Act 1974 to prevent statutory nuisance.

- 1.2 The contractor will ensure that any construction lighting is appropriate for Health and Safety requirements and not intrusive to residents or sensitive site fauna.

Prior to any works that may have environmental impacts, the relevant Statutory Authorities will be consulted.

Monitoring

- 1.3 Where local residents are likely to be affected, good practice working methods that minimise noise, dust, and air pollution impacts will be used at all times.

- 1.4 The effectiveness of all measures will be monitored frequently by the main contractor and Site Manager and reviewed at least weekly. Officers of the relevant Council departments may be consulted to ensure compliance with relevant legislation.

Publicity

- 1.5 There will be regular liaison with local residents who may be affected by construction works. Local residents will be informed of the nature of works, proposed hours of work and their expected duration.
- 1.6 Communication with local residents will include publicity, including the name and telephone number of a main contact. The contact person will be able to give further information to the caller and deal with any complaints or emergencies that may arise periodically. The Council’s Environmental Health Department will be notified of any complaints made about the site.

- 1.7 A site notice board will be provided adjacent to the main site entrance at a point convenient for public access. This will display the following information:

- name, address and telephone number of the Contractor
- out-of-hours contact number in case of emergency
- description of site project
- timetable of works
- commitment to comply with the Council’s Code of Practice for site works

- statement that any work at anti-social hours shall be agreed in advance with the Council and communicated to residents by way of a letter drop
- Council contact number in case of complaints

Operation

1.8 Where noise, dust and air pollution are likely to affect local residents the contractor shall be responsible for ensuring that:

- all plant and equipment, including any on hire, is checked to ensure it is in good working order and conforms to the manufacturers' standards. Equipment will be properly silenced and meet statutory emission standards;
- effective methods of work are adopted to prevent dust from becoming airborne at source. As dust is harder to suppress once it has become airborne, careful consideration at the design stage will be required to deal with the enclosure of fixed plant, addition of moisture, or provision of effective exhaust ventilation and filtering;
- measures are taken to protect listed buildings as necessary; and
- prior to the commencement of site works, the workforce will be fully briefed on environmental standards on site through the provision of training. All staff will be made aware of the CEMP and Considerate Constructors Scheme and carry out work to the relevant standards.

2. NOISE MANAGEMENT AND CONTROL

- 2.1 Where residential occupiers are likely to be affected by noise, the hours of work will normally be restricted to the following:-

Monday to Friday	08:00 hrs to 18:00 hrs
Saturday	08:00 hrs to 13:00 hrs
Saturday from 13:00 hrs	No work where noise is audible at the site boundary
Sunday & Bank Holiday	No work on site except by prior agreement with the local authority

- 2.2 All vehicles and plant arriving at and leaving the site shall comply with the same restrictions on hours. Vehicles shall not be parked off-site in the vicinity outside these hours except in properly designated 'lay up' parking places. The main contractor and Site Manager will ensure that instruction is given to all drivers including those delivering materials or removing waste to and from the site.

- 2.3 Any work outside of the stipulated hours above will only be carried out on prior approval of the Havant Borough Council Pollution Control Departments. Local residents will also be informed in advance of the proposed activity.

Plant and Equipment

- 2.4 Noisy plant and equipment will be sited as far away as is practicable from sensitive receptors. The use of barriers, such as soil mounds, site huts, acoustic sheds and partitions to deflect noise away from noise sensitive areas will be employed wherever practicable. Rapid access to portable acoustic screens such as those specified in British Standard BS5228:1997:Part 1 will be provided.
- 2.5 Where necessary, site hoardings will be provided. These aid with egress of noise and dust. Hoarding may take the form of existing buildings, security hoards, or purpose built noise screens. Specific noise reduction hoarding is available where noise impact is a particular issue, or effective hoarding can be constructed on site from two sheets of 12mmmm board filled with a sound absorbing material such Rockwool.
- 2.6 Effective screening/hoarding must be appropriately sited between the noise source and the potential receptor, contain no holes and ensure that the screening material overlaps with minimal gaps.

- 2.7 Wherever practicable all plant and machinery will be powered by mains electricity in preference to locally powered sources such as diesel generators. Hand tools will be electrically powered rather than diesel or petrol driven where practicable.
- 2.8 All plant and machinery will comply with relevant statutory and manufactures' requirements. Vehicles and plant used for the purpose of the works will be fitted with effective exhaust silencers, maintained in good and efficient working order and operated to minimise noise emissions.
- 2.9 Machinery in intermittent use will be shut down in the intervening periods between work or throttled down to a minimum. Noise emitting equipment required to run continuously e.g. generators, will be housed in suitable noise reducing enclosures.
- 2.10 Where potentially noisy operations such as piling is required, the least intrusive method in terms of noise and vibration will be selected.
- 2.11 Only "sound reduced" compressors shall be used. Models will be fitted with properly lined and sealed acoustic covers that shall be kept closed whenever the machinery is in use.
- 2.12 Pneumatic percussive tools will be fitted with mufflers or silencers of the type recommended by the manufacturers. Equipment that breaks concrete, brickwork or masonry by bending or by bursting shall be used in preference to percussive tools as far as practicable.
- 2.13 Where practicable rotary drills bursters actuated by hydraulic, chemical or electrical power will be used for excavating hard or extrusive materials.
- 2.14 Plant will be maintained in good working order so that extraneous noise from mechanical vibration, creaking and squeaking is kept to a minimum.
- 2.15 Care will be taken when loading or unloading vehicles, or moving materials etc to reduce noise impact.

3. DUST MANAGEMENT AND CONTROL

- 3.1 In assessing the need for dust control measures regard shall be paid to:
- the nature of works
 - proximity of dust sensitive receptors (e.g. houses, specific crops, utilities)
 - effects on the general public and road user
- 3.2 Where necessary methods of dust prevention will be agreed with the Pollution Control Department of Havant Borough Council in advance of works starting on site.
- 3.3 A mains water supply will be available on site from commencement of works. Watering down of the area will be carried out whenever dry or windy conditions pose a risk of dust blowing off site, affecting neighbouring occupied properties.
- 3.4 The choice of plant and equipment and the method of work will reflect the necessity to employ "best practicable means" (BPM).
- 3.5 Where adequate dust control cannot be achieved by the choice of appropriate plant, equipment and work method the most common means of dust suppression using water and/or containment by screening and enclosure will be adopted.
- 3.6 Water suppression of dust will be employed for operations such as cutting or sandblasting of stone or concrete as well as in more general applications where dampening will prevent wind whipping of dust from stockpiles and operational areas of the site, or from demolition.
- 3.7 Where dust is likely to be a persistent problem water spray systems will be available from the commencement of works. The use of these systems will be applied in operations such as demolition and soil removal during construction.
- 3.8 Finely divided materials such as sand and cement products will be stored where practicable under cover or in sealed containers. In some circumstances screening or enclosure may be required in addition to water suppression.
- 3.9 As far as practical constraints will allow, obvious sources of dust such as spillages of finely divided materials will be removed using a wet cleaning technique.
- 3.10 The importance of cleaning will be applied to internal roads and the highway which may become coated with dust from other operations and can become a secondary source of dust emissions.
- 3.11 A speed limit will be applied to vehicles operating on the Site during dry conditions.

- 3.12 Easily cleaned hard-standing areas will be provided within the site for vehicles entering, parking and leaving.
- 3.13 Wheel washing facilities adjacent to the egress points used by vehicles leaving the site will be provided.
- 3.14 Personnel and mechanical road sweepers will be used to clean the hard-standing area and to clean any mud or debris deposited by works vehicles on internal roads and the public highway in the vicinity of the site.
- 3.15 All vehicles carrying potentially dusty materials (skips and removal vehicles) to or from the site will be required to be fully sheeted on the public highway. Watering of any rubble chutes shall be undertaken whenever necessary to prevent excessive dust emissions. Chutes will be fitted with a 'sock' enclosing the discharge into the skip or truck. Socks will be maintained in position at all times when the chutes are in use.
- 3.16 Any plant used for crushing of materials must have a permit, issued by the appropriate local authority under the Pollution Prevention and Control Regulations 2000 (prescribed processes). All works will be carried out in accordance with the conditions of such a permit. Plant used to recycle materials will require a permit/licence from the Environment Agency. The relevant Regulatory Authority will be notified prior to the equipment being brought on site.
- 3.17 Water bowsers will be provided for use in suppressing surface dust generated from unpaved roads or other sources during periods of dry weather, use of sprinklers and water carts, and re-vegetation of stockpiles will be applied where appropriate.
- 3.18 Materials and storage/stockpiling areas will be located away from sensitive locations, such as residential properties, as far as reasonably practicable. Stockpiles will be screened or bunded where practicable. Stockpiles of all potentially dusty materials shall be damped down or covered to prevent emissions of dust from the site. Stockpile sites will be planned, sited and profiled to minimise the potential for dust generation. Handling of material should be kept to a minimum and when deposited onto a stockpile it should be dropped from the minimum possible height.
- 3.19 Particularly dusty activities such as soil stripping will be carried out in suitable weather conditions when practical (i.e. when the ground is damp and during periods of low wind speed) to minimise dust impact on receptors.
- 3.20 Care will be taken to control dust arising from the waste or recycled materials being deposited, handled, processed and stored on the Site.
- 3.21 Monitoring of dust by means of a daily site walk-over will be carried out to inspect the perimeter and check for dust deposition on fencing and any trees close to the edge of the area of the site being worked on. A daily inspection of the local area will

also be carried out to check for any evidence of excessive levels of dust deposition that may be a result of the construction site activities. This will confirm the effectiveness of adopted dust management procedures and allow any problems to be identified so that remedial action can be employed as necessary.

- 3.22 Operations will be monitored and if necessary stopped in particularly dry and windy weather conditions when the dust control measures are proving to be ineffective'.
- 3.23 Although dust will occur from site activities, this is likely to have a minimal and temporary impact on the surrounding environment if appropriate mitigation is applied. The use of best practice to control dust during construction activities is normally sufficient to avoid any unacceptable problems occurring. Provided the proposed dust management measures are properly implemented, dust will be controlled to an acceptable level.

4. CONTROL OF SMOKE AND EMISSIONS

- 4.1 Smoke can be considered to constitute a Statutory Nuisance under the Environmental Protection Act 1990 if it affects the occupiers of other properties. The emission of dark smoke from industrial or trading premises (including construction sites) constitutes an offence under the Clean Air Act 1993. The lighting of fires on site shall not be permitted and waste will be disposed of under the conditions set out in a Site Waste Management Plan (SWMP).
- 4.2 If timber has been confirmed diseased, burning of the material shall only occur after the local authority has been informed in writing and permission to burn on site has been granted.
- 4.3 All necessary precautions will be taken to prevent emissions of smoke and fumes from site plant / equipment or stored fuel oils. Plant will be well maintained and measures will be taken to ensure that it is shut down in intervening periods between work or throttled down to a minimum.

5. CONSTRUCTION LIGHTING

5.1 Where required, construction lighting will be provided. This can provide a deterrent to vandals and thieves and allow late/early working where authorised, but may also cause a nuisance to local residents and impact fauna. Therefore, when planning and designing a lighting compound the following must be considered:

- Keep lighting to the minimum brightness required;
- Direct lighting downwards where appropriate;
- Use of baffles if up lighting is unavoidable;
- Use of energy efficient lighting;
- Consult the site ecologist before any lighting is installed, to ensure minimum disturbance of local bat roosts

6. WASTE MANAGEMENT

- 6.1 A Site Waste Management Plan will be maintained throughout the works. All major waste streams that will be generated during the Contract will be identified including;
- green waste
 - construction waste, including;
 - spoil
 - demolition waste
 - asphalt or bitumen
 - concrete and metal
 - chemical and paints
 - office waste
 - kitchen waste
 - sewage effluent;
- 6.2 For each waste stream how and where the waste is to be reused, recycled, stockpiled or disposed of will be identified
- 6.3 Waste generated from site activities will be sorted and amounts estimated and recorded.
- 6.4 Where available, waste suitable for reuse or recycling will be reused or recycled.
- 6.5 Materials and products with recycled content will be proposed for the works wherever these are cost and performance competitive and they are environmentally preferable to the non-recycled alternative.
- 6.6 Waste oil will be sent to approved recyclers where appropriate.
- 6.7 Waste and containers not able to be recycled will be disposed of at a licensed landfill site.
- 6.8 No construction waste material will be left on site once the site works have been completed.
- 6.9 The site will be left in a clean and tidy state on completion of the site works.
- 6.10 How the waste will be transported between the site and point of reuse, recycling, stockpiling, treating or disposal and who will be responsible will be identified.

APPENDIX D: PROGRAMME OF WORKS

Accommodation Schedule			
Berewood PH2, Waterlooville			
Private			
Number	House type	No. of beds	SQF T
1	Ledbury 2	2	915
3	Ledbury 3	3	926
4	Malvern	3	944
12	Letchworth	3	1027
20	Weymouth	3	1060
6	Stewsbury	4	1133
12	Worcester	3	1238
5	Widbur	4	1189
5	Staitford	4	1240
28	Kensington	4	1247
6	Kensington 3	3	1421
18	Oxford	4	1295
8	Cambridge	4	1382
12	Sharnbury	4	1410
5	Harrington	4	1511
1	Tower House	4	1823
148	Total		180440
Affordable Rented			
Number	House type	No. of beds	SQF T
2	102P Flat	1	484
2	283P Flat	2	614
3	283PWC Flat	2	721
3	284P Flat	2	721
13	Tary	2	818
3	Tarys (Cannell)	3	924
17	Dart	3	890
5	Tony	4	1001
49	Total		40547
Affordable Shared Equity			
Number	House type	No. of beds	SQF T
10	102P Flat	1	484
15	283P Flat	2	614
5	284P Flat	2	721
12	Tary	2	818
1	Tarys (Cannell)	3	924
1	Dart	3	890
49	Total		33725
246	TOTAL		214165

PRIVATE - 43nr
 HA - 22nr
 PRIVATE - 36nr
 HA - 10nr
 PRIVATE - 31nr
 HA - 48nr
 PRIVATE - 38nr
 HA - 18nr
246nr

Pu 1 PRIVATE
 Pu 2 PRIVATE
 Pu 3 PRIVATE
 Pu 4 PRIVATE

NOTES
 Permission is granted to make from this drawing for the purpose of Local Authority Planning Approval only. In all other circumstances DO NOT scale from this drawing. Please contact the office for any additional information required.
 Creations, Sub Creations and Suppliers are to check all relevant dimensions and levels of the site and building before commencing any other drawings or building work. Any discrepancies should be reported to the architect.
 Where applicable this drawing is to be read in conjunction with the Creations drawings.
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PRELIMINARY
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 PROJECT
 BEREWOOD, PHASE 2
 Waterlooville, Hampshire
 For: Redrow Homes (Southern)
 DRAWING
 SITE LAYOUT
 SCALE
 1:500 @ A0
 DATE
 30/10/13
 AUTHOR
 GWT
 RT
 CHECKED
 SL01
 REV
 A

APPENDIX E: REDROW SITE WASTE MANAGEMENT



REDROW

WASTE MANAGEMENT POLICY

June 2012

Summary

This waste management policy promotes processes and working practices that minimise the environmental impact Redrow developments have on the natural environment whilst simultaneously embracing sustainable and economically viable construction methods.

For the policy to succeed it is essential that there is full commitment and effort from all Redrow employees, subcontractors and suppliers. For this reason, the Redrow Board have given their full endorsement to this waste management policy.

On our developments clear benefits to be gained from the policy will be evident via cleaner and tidier sites, which in turn create positive Health and Safety benefits and provides an environment conducive to efficient productivity. Measurable outcomes of the policy will be reduced waste costs and an overall improvement in understanding costs.

This document outlines methods and procedures regarding waste minimisation and how waste is to be removed from site. Specifically, consideration is given to current legislation and what influence this has on the way Redrow process waste. Because it is recognized that waste removal has Health and Safety implications, the policy details how waste is to be handled and removed from site. In terms of environmental considerations, significant thought and effort from a strategic and practical level has been invested in waste minimisation, and recycling and reuse of materials.

The key components of the policy are expanded in greater detail within this document but briefly comprise:

- 1. adoption of a waste segregation policy involving four waste streams;*
- 2. special arrangements for limited space or end of site situations;*
- 3. Redrow subsidiary company negotiation with local waste handling companies; and*
- 4. keeping of detailed generated waste information, site by site, with monthly reporting in Redrow subsidiary company board reports.*

Contents

1	INTRODUCTION	4
1.1	Aims and objectives of Redrow's waste management policy	6
1.2	Health and Safety issues	6
1.3	Current legislation impacting on waste management	7
2	GOVERNMENTAL INFLUENCES UPON WASTE	7
3	MINIMISING WASTE ON SITE	8
3.1	Materials handling and storage.....	8
3.2	Waste management definitions	9
3.3	Benchmarking site waste	10
3.4	Roles and responsibilities	10
3.5	Recycling and reuse of materials	11
4	WASTE SEGREGATION.....	12
5	PLASTERBOARD	12
6	MANAGEMENT OF WASTE SEGREGATION.....	13
6.1	Subcontractors' and suppliers' knowledge of Redrow waste management policy.....	13
6.2	Reporting of performance	14
7	SEGREGATING WASTE.....	15
7.1	Access to waste skips and general site layout.....	15
7.2	Management of partial segregation on site	15
8	RESTRICTED SITES AND END OF SITE IMPLICATIONS ON WASTE MANAGEMENT.....	16
8.1	Waste segregation	16
8.2	Moving Waste on Site	16
8.3	Compaction of active waste	17
8.4	Waste removal	17
8.5	Waste removal authorisation.....	18
APPENDICES.....		19
	Appendix 1 – Suppliers and Subcontractors agreement form	19
	Appendix 2 – Summary of legislation influencing waste management	20
	Appendix 3 – Poster situated at sign in book	25
	Appendix 4 – Skip signage protocol	26

1 INTRODUCTION

Redrow prides itself at being at the forefront of innovation in UK private sector house building and commercial developments, and fulfilling its obligations to shareholders to ensure that it uses the four *M*s (*men*¹, *money*, *machines* and *materials*) as effectively and efficiently as possible. The need to embrace this waste management policy is therefore clear.

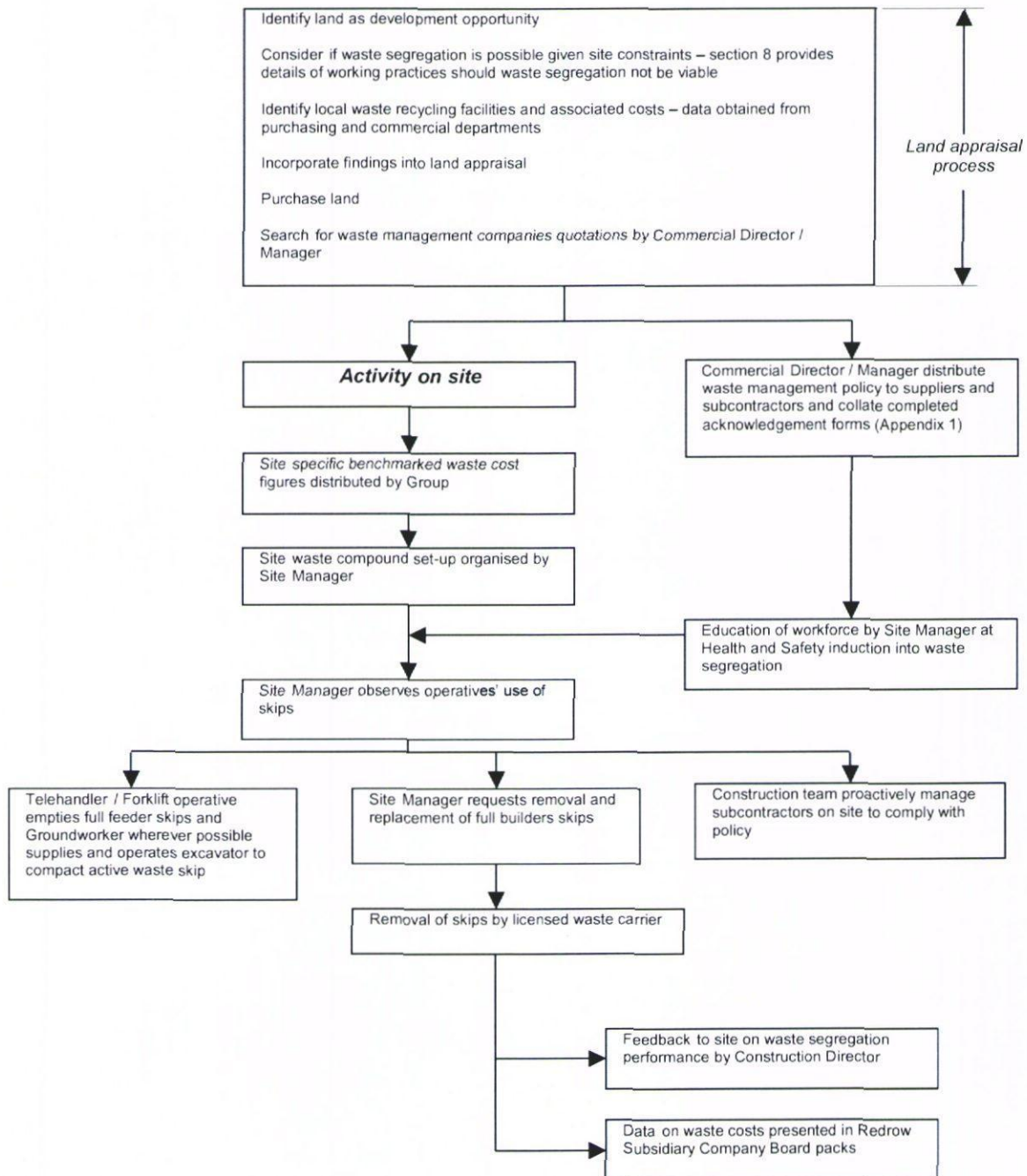
This document is divided into four dominant sections.

1. Section one outlines the background, legislative requirements, and the aims and objectives of this waste management policy.
2. Section two considers waste minimisation in all its aspects.
3. Section three details management aspects.
4. Section four details site waste removal procedures.

Figure 1 details this document in diagrammatic format.

¹ The male pronoun is used throughout this document as an aphorism only. Redrow fully support and embrace women entering and working in the construction industry.

Figure 1: Redrow's waste management policy



1.1 Aims and objectives of Redrow's waste management policy

The aim of this policy is:

'to reduce the amount of resources being unnecessarily consumed in the construction and development of Redrow properties'

In achieving this aim the following objectives will be met:

- *to promote sustainable housing developments;*
- *seek to minimise the impact of Redrow developments on the natural environment;*
- *seek to minimise traffic generated as a result of having to remove waste materials;*
- *to adopt best practice waste management habits;*
- *to optimise the recovery of finite resources (including energy) from waste;*
- *to promote an ethos of recycling waste materials;*
- *to mitigate against the influences of greenhouse gases;*
- *seek to minimise house building costs;*
- *to optimise timing and manner of deliveries;*
- *to liaise with manufacturers to minimise the impact of packaging; and*
- *ensure efficient storage of materials on site.*

In terms of financial and environmental implications, this waste management policy provides Redrow subsidiary companies with guidance on how to improve their efficiency across both of these measures.

1.2 Health and Safety issues

Under the Duty of Care provisions in the Environmental Act 1990 each person producing waste is responsible for safe handling and lawful disposal of waste. In achieving this Duty of Care, individuals are responsible for:

- *preventing unauthorised unlicensed disposal of waste (i.e. fly tipping);*
- *preventing waste products escaping from a safe storage vessel and contaminating the environment;*
- *ensuring that waste does not form any hazard or damage to third parties or their property;*
- *ensuring that waste is removed in the correct manner by a correctly licensed waste carrier;*
- *providing suitable descriptions of waste so that a waste disposal agency can deal with it in a suitable manner; and*
- *retaining a record of all waste transfers for a period of two years.*

Failure to comply with these criteria can result in an unlimited fine.

It is therefore critical that this document is read, understood and embraced by all employees, subcontractors and suppliers who have a direct influence on activities that are conducted on site.

1.3 Current legislation impacting on waste management

The following acts and statutory instruments have been consulted in the construction of this document:

- Environment Protection Act (1990) Act of Parliament.
- Waste Management Licensing Regulations (1994), Statutory Instrument 1994 / 1056.
- Construction (Design and Management) Regulations (1994).
- Environment Act (1995).
- Controlled Waste Regulations (1992).
- The Landfill Tax Regulations (1996).
- The Landfill Tax (Amendment) Regulations (2002).
- Producer Responsibility Obligations (Packaging Waste) Regulations (1997).
- Producer Responsibility Obligations (Packaging Waste) (Amendment) (England) Regulations (2002).
- Control of Substances Hazardous to Health Regulations (2002).

All of the above documents can be viewed at St David's but are summarised in Appendix 2.

2 GOVERNMENTAL INFLUENCES UPON WASTE

Taxation legislation has a direct influence on waste management and has acted as a significant coercive force for the implementation of this waste management policy. At present (June 2012) statute can be broadly described as:

Government landfill taxation – the Government levy a tax on waste that is sent to landfill. The level of taxation will increase to coerce industry to reduce the amount of waste it produces and sends to landfill.

Government transport taxation – in a similar manner to landfill tax, costs associated with transport have increased due to taxation (e.g. road fund tax, fuel tax etc.). The Government has failed to provide prescriptive guidance on future tax increases that will be imposed on transportation.

Aggregate tax – the aggregate tax came into effect on 1 April 2002 and is currently charged per tonne for sand, gravel and crushed rock. If these materials are sourced from recycled sources then the tax on such is foregone.

The landfill directive – in order to actively reduce the amount of waste sent to landfill the Landfill (England and Wales) Regulation 2002 states that pretreatment of waste is required

before it is accepted at a landfill site; landfill sites will be classified into one of three categories: hazardous, non-hazardous, or inert according to the type of waste they can receive, and biodegradable waste will be diverted away from landfill. The crux of this means that waste disposal will become more difficult and more expensive.

There is therefore a need to manage waste and ensure the most cost effective waste removal processing practice is undertaken in order to maintain the competitiveness of Redrow's cost base.

3 MINIMISING WASTE ON SITE

European Union construction sites produce in excess of 180 million tonnes of construction and demolition waste per annum. Because many of these resources are obtained from finite sources, it is obvious that the industry, as a large consumer of materials, has the potential to play a major part in ensuring the longevity of the natural environment. Economic reasoning also dictates that material usage on site should be optimised to increase efficiency.

Research has identified that between five and ten per cent of materials (both manufactured and processed goods) supplied to site are wasted and / or damaged before they are fixed. There is a cost to this both in terms of storing materials that will be damaged and in the loss of revenue due both to replacing the damaged material and removing the waste material from site. Because of the potential negative impact of failing to embrace a suitable waste management policy, the Board at Redrow are fully committed to maintain their awareness of materials usage; understand advances in waste management; and build on this knowledge to enhance the company's performance. Employees, subcontractors and suppliers of Redrow are expected to support the Board in their quest for more efficient materials usage.

Practical issues for site management include ensuring appropriate storage of materials; bricks and blocks should be palletised wherever possible and timber products be kept in accordance with the suppliers / manufactures recommendations.

It is the responsibility of all subcontractors to act in a responsible manner with regards to the amount of waste they produce and for Redrow Construction teams to proactively manage subcontractors to comply with the policy.

Whenever materials are ordered they must be in accordance with the schedules prepared by Group. Ordering of additional materials other than those detailed in the schedules for house construction requires appropriate authorisation in accordance with Policy and Procedures.

3.1 Materials handling and storage

To ensure that materials remain undamaged in storage the following handling and storage procedures must be undertaken:

- *store materials in the appropriate dedicated area;*
- *materials stores should be secure;*

- *position store away from vehicular access routes and movements;*
- *check goods on delivery and return any damaged goods supplied to site to the respective supplier at their cost;*
- *store materials in their original packaging until they are to be installed;*
- *store materials in accordance with the manufacturers' instructions;*
- *do not store unnecessarily large amounts of materials unless in accordance with Group instructions (e.g. bricks and blocks – retain three months' supply); and*
- *aim to reduce the amount of time any materials are in storage.*

Ideally, materials should be supplied on pallets to facilitate easy mechanical handling. Pallets should be collected by the respective suppliers in a timely manner at the request of Redrow. Where suppliers are not prepared to collect their pallets, these pallets should be sold on to pallet reclamation companies.

Under no circumstances should pallets be deposited in skips.

When transporting materials from the site store they must be protected from being damaged. Such protection may take the form of positioning materials on pallets so that they do not sit directly on the ground; covering materials with a waterproof cover; keeping materials in a store that is dry and well ventilated; and ensuring that manufacture's storing, handling and transportation recommendations are followed. Failure to observe these points could result in materials being damaged and excess waste being produced.

3.2 Waste management definitions

The following definitions are used throughout the document and have the following meanings:

- (a) *Packaging waste*: typically consisting of paper, card, polythene, polystyrene, and plastic corner protection devices etc.
- (b) *Active compactable waste (non-inert)*: attracting top rate of landfill tax and typically comprising of metal banding, empty paint containers, canteen waste and any other compactable material.
- (c) *Active non-compactable waste*: typically comprising of oversized off-cuts of plastic, timber, and metals.
- (d) *Non compactable non-active waste (inert material)*: attracting low rate of landfill tax, non-contaminative material which can be recycled at source examples of which being brick, block and concrete.
- (e) *Feeder skips*: typically having a 2yd³ capacity and being strategically situated across the site to have segregated waste deposited in them (see section 4 regarding materials segregation). Feeder skips are to be in good condition, be regularly inspected and comply with Redrow's Health and Safety policy. Skips that do not comply with this criterion must not be used. Care should be employed when loading a feeder skip into a builders or roll on roll off skip to eliminate potential health hazards.

(f) *Builders skips*: typically having a capacity of 8 or 12yd³ and situated in a secure compound for non-compactable inert waste (d), for active non compactable waste (c), or for timber waste.

On sites where uncommon waste materials are being handled, a risk assessment of the waste should be conducted by the Contracts Manager and approved by the Health & Safety department. Any specialist waste removal practices should be undertaken by a specialist waste management company who is fully licensed to carry out such a task.

3.3 **Benchmarking site waste**

To ensure that sites are complying with this waste management policy, a site self-auditing process should be undertaken. This auditing process should continually seek improvement on the following aspects:

- *the quantity and quality of materials contained in the skips (quality in this sense is defined as materials being suitable for use on another part of the build process);*
- *the general condition materials are stored on site prior to their usage;*
- *the quantity of waste and off-cut materials deposited around the site; and*
- *the ability of site personnel to segregate waste into appropriate types.*

Indirectly, results of this auditing process will be made explicit via costs of waste removal from site. In turn, this cost data will be reported in Subsidiary Company Board Reports.

3.4 **Roles and responsibilities**

The ability of this waste management policy to operate to its maximum effectiveness is reliant upon the people and resources supplied to it. Therefore, the following individuals are made explicitly responsible for the following tasks:

Table 1 - Waste responsibilities

Individual	Tasks
All site operatives / subcontractors	• segregating waste and inserting into appropriate skips
Site labourer / telehandler / forklift driver	• ensuring that skips are located in positions as directed by the Site Manager; and • that skips are emptied at appropriate frequencies.

Site Manager	- informing the site labourer / forklift / telehandler driver where skips should be located; - monitoring all site operatives' waste materials skipping habits; - inducing new site operatives into the waste management policy; and - proactive management of subcontractors on site to comply with Redrow policy.
Contracts Manager	- monitor the type and quantity of materials being removed from site; - highlight to Construction Director any contractors who have been excessively skipping materials; and - proactive management of subcontractors on site to comply with Redrow policy.
Construction Director	- monitoring the quantity of materials being removed from site; - ensuring that the waste management policy is being upheld; and - proactive management of subcontractors on site to comply with Redrow policy.
Commercial Director / Manager	- obtain the most economical waste removal company; - collate suppliers and subcontractors agreement forms (see appendix 1); - inform potential contractors and suppliers of their waste handling responsibilities should they be awarded the contract; - distribute waste management policies to prospective subcontractors and suppliers; and - proactive management of subcontractors on site to comply with Redrow policy.
Land Department	incorporate waste removal costings in land appraisal.

3.5 **Recycling and reuse of materials**

It is inevitable that the construction process will demand the cutting and shaping of materials in order for them to fit. Because of this 'natural' wastage, off cuts should always be considered for reuse prior to making the decision to skip them.

To optimise the use of materials on site and minimise waste the following factors should be considered and embraced:

- programme delivery of materials so that they are not left stored on site for considerable lengths of time which exposes them to possible damage and theft;*
- order materials in accordance with the schedule details on the DCC (Direct Cost Control System) which represents the appropriate quantity required*
- taking care at delivery and offloading;*
- ensure safe and secure storage areas with suitable arrangements appropriate for each material;*
- ensure delivery to correct location to avoid double handling;*
- check correct materials have been delivered undamaged before signing off delivery sheets;*
- retain packaging on materials as long as possible to prevent damage occurring; and*
- encourage all personnel on site to keep their areas clean and tidy.*

4 WASTE SEGREGATION

*Waste materials shall be segregated into timber;
bricks and blocks; plasterboard; and 'other' waste streams.*

Table 2 details how materials should be evaluated in terms of their usefulness. Where materials fall under the 'reuse' banner they should be placed in the appropriate skip / storage facility to facilitate their reuse. A storage facility is defined as an area of site not under construction and where safe storage of recyclable materials is possible.

Reprocessing of materials should be conducted off site unless on site facilities are available.

If there is the potential to cost effectively reprocess any other materials then this should be embraced, subject to Health and Safety considerations.

Where materials have the potential to be reprocessed, details of companies offering a reprocessing / recycling service can be found at: www.ciria.org/recycling or www.smartwaste.co.uk

Material	Reuse criteria	Potential to reprocess	Reprocessed material usage
Concrete	If under one hour old after delivery to site or of a suitable consistency to carry out the task required of it	✓	Crushed material used as hard standing
Brick	If brick is whole and clean	✓	Crushed material used as hard standing
Block	If block is whole and clean	✓	Crushed material used as hard standing
Mortar	Dependent upon type of mortar used	✓	Crushed material used as hard standing
Timber	If length is greater than 600mm	✓	Sent to timber recycling plant
Roofing tiles	If undamaged	✓	Crushed material used as hard standing
Ceramics and ceramic tiles*	If undamaged	X	
Plastics	If length is greater than 600mm	X	
Metal	If length is greater than 100mm	X	
Packaging – card and paper	None	X	
Packaging – plastics	None	X	
Insulation	Collection by manufacturer	X	
Packaging metal banding	None	X	
Packaging pallets	Collection by supplier or by ELM	X	

* due to there being a possibility of ceramic materials containing sharp edges after being crushed, ceramics should not be reprocessed

5 PLASTERBOARD

Full use of the British Gypsum recycling system shall be made by plasterboarding contractors for their plasterboard waste removal. Redrow will provide contractors with an allowance of two one-tonne bags per dwelling for the removal of plasterboard off cuts; should the plasterboarder produce more waste than can be

contained within these bags then they shall be financially responsible for the costs of the additional plasterboard off cut bag removals. The plasterboarding contractor is not allowed to provide his own skip for waste removal.

No other material than British Gypsum plasterboard must be deposited in the bags provided. British Gypsum is the solus supplier of plasterboard to Redrow and consequently there should not be any plasterboard waste which is non-British Gypsum.

6 MANAGEMENT OF WASTE SEGREGATION

6.1 Subcontractors' and suppliers' knowledge of Redrow waste management policy

We are committed to minimising the environmental impact of our activities. As part of this commitment, we will work to reduce the amount of construction, demolition and excavation to landfill. We will adopt and implement standards for good practice in reducing waste, recycling more, and increasing the use of recycled and recovered materials.

To help deliver on this commitment we expect our supply chain partners to support us in this area, and to meet the minimum requirements set out below. All organisations appointed to work on our behalf are required to work in accordance with this requirements.

To ensure that subcontractors and suppliers are fully aware of Redrow's waste management policy, prior to signing any contracts the following process shall be followed:

For Suppliers

Discussions shall be undertaken by Commercial departments either at Group or subsidiary company level (as appropriate) to ensure that materials are where possible within agreeable costs and:

- *of a suitable size to minimise the need for on site cutting and shaping;*
- *suitably packaged to prevent them being damaged either in transit or storage;*
- *raw materials obtained from a certified sustainable source;*
- *timber products sourced from WWF approved forestry sources in accordance with the Redrow Procurement Policy document;*
- *packaged using biodegradable material or packaged using material that is sourced from a sustainable supply;*
- *that any packaging that does not comply with the above criteria is reusable; and*
- *that suppliers collect recyclable packaging subject to cost.*

For Subcontractors

At tender stage subcontractors will be provided with this document so that they are fully conversant with the demands that will be placed on them in terms of waste segregation and its associated costs.

To ensure that on site operatives are aware of their responsibilities, prior to being allowed on site, subcontractors will undergo an induction into the waste management policy. This induction should be registered in the site office records in a similar

manner to the Health and Safety induction they receive. Content of the induction will include details of:

- *positions of skips;*
- *the waste segregation policy employed; and*
- *where suitable materials storage facilities are positioned.*

To promote the waste management policy, posters will be positioned at appropriate locations so that when operatives' sign in they are reminded of the waste protocol (see Appendix 4 for poster details).

Suppliers and subcontractors must return the form in Appendix 1 to the Redrow subsidiary company Commercial departments stating that they agree to comply with this waste management policy.

All operatives going on site shall be inducted by Site Management into both Redrow Health and Safety rules and Redrow's waste management policy.

No other persons than those employed on site are allowed to use Redrow skips. In particular, Redrow customers are not allowed to use Redrow skips for the removal of their waste.

6.2 Reporting of performance

Full details of performance will be reported in subsidiary company board packs; this will emphasize the importance of efficient waste management and act as a stimulus to focus thought.

Waste costs should be reported at the Divisional Board meetings.

Divisions are encouraged to report examples of Best Practice to the Research and Sustainability department at St David's Park for dissemination around other Redrow Offices.

7 SEGREGATING WASTE

The key to successful reduction in waste costs is segregation.

Carrying out waste segregation offers the potential to recycle materials and encourages greater consideration of the need to dispose of those materials. As a result the overall tonnage of waste can be reduced.

Good site management of segregation is critical for success of the policy, therefore the following sections of the report outline management implications for different activities involving segregation.

7.1 Access to waste skips and general site layout

A segregation policy will be employed on all sites² (see section 4).

Resources provided by Redrow in order for segregation to take place will include:

- *waste chutes to facilitate waste segregation where appropriate;*
- *newly purchased feeder skips which must be able to be clearly labeled detailing the type of waste that can be deposited in them; or*
- *existing owned feeder skips which shall be clearly annotated with the type of waste to be deposited in them; and*
- *feeder skips will be located as close as possible to work areas to assist segregation.*

In terms of emptying skips the following procedure shall be undertaken:

- *feeder waste materials skips shall be emptied at regular intervals into builders skips suitably situated to facilitate their emptying by the appointed waste removal company; and*
- *builders skips shall be housed in a dedicated lockable fenced off area; the location of which should be as close as possible to the site office to facilitate easy monitoring of skip contents.*

Appropriate consideration should be given to accidental damage to skips which may occur as a result of vehicular impact or vandalism.

7.2 Management of partial segregation on site

Partial segregation is a viable solution to offer both cost savings and improving environmental issues.

Timber, brick and blocks, and plasterboard recyclable waste streams account for nearly three quarters of Redrow's waste. By limiting the number of waste streams to be segregated the management process to control skipping becomes feasible.

The philosophy of a partial segregation system is that it must be easy for site operatives to work and should not involve significant inconvenience for operatives to skip materials in the correct skip.

To give feedback to sites on their waste segregation success, benchmark figures will be set by Group and performance recorded by Site Managers. Similarly, to engender a level of competition between the sites in any one subsidiary company, each site's skipping costs will be made available in a graphical format that allows site operatives to determine what the impact of their skipping habits are in comparison to other sites. This site by site information will be collated and presented by Construction Directors.

8 RESTRICTED SITES AND END OF SITE IMPLICATIONS ON WASTE MANAGEMENT

Since different sites have varying characteristics in terms of the physical space available for a segregation compound it is unrealistic to demand segregation takes place under certain conditions.

The definition of a restricted site is: where there are less than five properties on the development left to construct or where housing three 8yd³ builders skips is unviable.

8.1 Waste segregation

Skips shall be clearly labeled. The labeling coordination of skips shall be as follows:

- green for timber off cuts (ideal maximum allowable length of timber off cut is 600mm);
- yellow inert waste i.e. bricks, block, mortar materials (clean bricks and blocks should be reused); and
- red for active general non-recyclable waste (ideal maximum lengths of any skipped materials should not exceed 600mm).

Appendix 4 contains signage to be used to indicate the type of waste to be placed into the respective feeder and 8 or 12yd³ builders skips.

It is the Site Manager's responsibility to ensure that this skipping regime is adhered to.

Plasterboard off cuts are to be removed from site in line with the criteria detailed in section 5 of this report.

It is the Site Manager's responsibility to ensure that all operatives on the site fully understand the waste policy.

8.2 Moving Waste on Site

Feeder skips shall only be moved using the correct machinery.

The definition of correct machinery is a machine that is designed with the specific purpose of lifting heavy objects; in the majority of cases a forklift / telehandler is deemed to be the most appropriate machine for this job.

When moving feeder skips, any contents that are physically hanging over the edge of the feeder skip shall be removed and initially considered for recycling; where recycling is not practical the material shall be cut to fit into the feeder skip by the operative whose waste it is.

By making operatives responsible for their own materials skipping, focus is explicitly placed on each individual to consider the implications of their working habits.

It is the site labourer / telehandler / forklift operative's responsibility to ensure that feeder skips are emptied at regular intervals.

8.3 Compaction of active waste

To optimise the tonnage of active waste in 8 and 12yd³ builders' skips, an excavator with banksman supervision (provided by the Groundworker) shall be used to compact the waste by placing the bucket onto the waste in the skip. The purpose of this exercise is not only to increase tonnage in skips but also to reduce the risk of materials being blown away both whilst the skip is on site and whilst in transit. It should be noted that this practice is only acceptable when a segregation policy is working effectively.

8.4 Waste removal

Waste removal from sites shall only be carried out between the hours of 8:00 am and 5:00 pm Monday to Friday and 8:00 am to 12:00 pm on Saturday and is subject to complying with planning and local environmental health constraints. Only in exceptional circumstances will waste be allowed to be collected at any other time.

BURNING WASTE MATERIALS IS STRICTLY PROHIBITED UNDER REDROW POLICY AND CAN LEAD TO SEVERE PENALTIES BEING IMPOSED BY THE ENVIRONMENT AGENCY.

The waste removal organisation will be responsible for supplying monthly reports to Redrow subsidiary company office detailing the volume, weight and type of waste products being removed from each site and their respective removal costings.

Where housing developments are being constructed in noise sensitive areas, the waste management company shall take full responsibility for ensuring acceptable noise levels are not exceeded when replacing builders skips.

When handling 'dusty' materials it is the waste management company's responsibility to ensure that any dust entering the atmosphere is minimised and within allowable tolerances. If there is any possibility that waste may be blown out of the feeder skip whilst it is in transit, then netting or other suitable sheeting should be used.

8.5 Waste removal authorisation

It is the waste management company's responsibility to safely transport waste materials from site to the respective waste management centre.

Waste management companies employed to transport waste from site along the public highway must have an up to date waste carriers licence and have completed waste transfer note(s) in their possession. This licence must be presented to the Commercial Director before the waste management company is asked to tender for a site's waste removal.

APPENDICES

Appendix 1 – Suppliers and Subcontractors agreement form

*Prior to being awarded any contract from Redrow this form must be returned to the respective
Redrow subsidiary company office*

Redrow Waste Management Policy

Please complete and return to the Redrow subsidiary office you are working for

I / We acknowledge receipt of Redrow's Waste Management Policy.

I / We have read and understood this document's contents, agree to observe these rules whilst working on your sites and communicate the document's requirements to all suppliers, subcontractors and employees.

I / We understand the need for managing our waste effectively and are willing to abide by this waste management policy.

Name

Signed

Date

Company.....

Appendix 2 – Summary of legislation influencing waste management

Environmental Protection Act (1990)

The Act is concerned with:

- the control of pollution arising from industrial processes;
- describing the criteria against which regulatory and other authorities must comply with for the collection and disposal of waste;
- provides an extension to the Clean Air Act;
- details the control mechanisms for the control of the importation, exportation, use, supply or storage of prescribed substances and articles of waste;
- details the law relating to the control of hazardous substances on land;
- to make provision for persons not complying with the Act and to enforce the courts to administer a maximum fine of £20,000; two years imprisonment' or both should any section of the Act be broken.

Waste Management Licensing Regulations (1994)

Waste disposal and recovery operations are subject to a range of permits in the UK depending upon the type and size of operation. The Waste Management Licensing Regulations ensure that permits implement the appropriate objectives of the directive. The crux of the regulation is that all waste carriers must be licensed to ensure that they receive and dispose of waste without endangering human health or the environment. For the purposes of removal of waste from Redrow's sites this legislation means that all operations that are employed to remove skips should be holders of the appropriate waste management licences.

Construction (Design and Management) Regulations (1994)

These regulations take a holistic view into the construction, design and management of a building. Because materials usage is a fundamental there is a link back to waste management. The Regulations have an impact on all stages of the planning and management of health and safety of a project. They place duties on clients, designers and construction organisations and introduce two new roles to the procurement process: the planning supervisor and the principal contractor.

The Regulations give the terms design and designer a wide definition and cover all designs and specifications to be used for the purposes of construction and all those involved in their preparation. Designers should pay adequate regard to health and safety risks when considering their designs.

Designs develop from initial concepts through to a detailed specification. At each stage designers from all disciplines have a contribution to make in avoiding and combating health and safety risks in construction. At various stages within the design process different mixes of design disciplines may be involved.

Readers are directed towards Redrow's Health, Safety and Environmental Standards for further information on the CDM regulations.

Environment Act (1995)

The act outlines the establishment of the corporate bodies to be known as the Environment Agency and Scottish Environment Protection Agency. These agencies, for the purposes of Redrow's business are concerned with:

1. contaminated land and abandonment of mines in all of there aspects such as: health and safety, harm to people and the environment, land remediation, and controlling risk of polluting water courses;
2. control of pollution in terms of its management, and risk assessment of pollutants;
3. conservation of natural resources;
4. land drainage and associated works must be undertaken to be sympathetic to the natural environment;
5. the Secretary of State's work into developing a national waste strategy which will actively promote reuse, recycling and recovery of products previously designated as waste;
6. enhancing the environment; and
7. imposing obligations onto certain persons in respect of certain products or materials.

Controlled Waste Regulations (1992)

This regulation provides a closely defined definition of what waste actually is and subsequently works closely with the Control of Pollution Act to minimise negative impacts on the natural environment. All aspects of construction work are covered by this legislation in terms of persons and organisations who must be competent and certified in accordance with waste removal from site.

The Landfill Tax Regulations (1996) and The Landfill Tax (Amendment) Regulations (2002)

These regulations are directed more towards landfill site operators than construction companies. Despite this, because construction activities produces significant amounts of waste it is necessary to understand how service providers (skip hire companies) have to work in order for them to comply with legislation. The main stance of the regulation is that inert waste attracts a significantly lower rate of tax per tonne than compared to active waste and that this differential is set to increase in order to have a coercive force for waste producers to segregate waste streams. In order to minimise the amount of tax paid waste producers must initially reduce the amount of waste produced, and secondly segregate waste streams into active and inert.

Producer Responsibility Obligations (Packaging Waste) Regulations (1997) and Producer Responsibility Obligations (Packaging Waste) (Amendment) (England) Regulations (2002)

This affects all companies who have a financial turnover greater than £2m per annum and who handle more than fifty tonnes of packaging per year. Whilst Redrow do not directly handle waste at the primary source it may be the case that suppliers to the Group have to recycle or reprocess materials they supply. The regulations require companies who do have turnovers greater than the amounts stated as having to submit data and information to substantiate that the minimum amount of overall packaging recovery and material specific recycling achieves the minimum standards set of them. It is likely that this regulation will be updated in the near future to bring it in line with European legislation that is in the process of being drafted.

Control of Substances Hazardous to Health Regulations (2002) - COSHH

The COSHH regulations relate to assessing risks associated with handling materials and substances that may cause potential damage / injury / harm to any person coming into contact with them. Because COSHH regulation fall directly under the remit of health and safety the reader is directed towards Redrow's Health, Safety & Environmental Standards.

Appendix3 – Poster situated at sign in book

WASTE MINIMISATION AND SEGREGATION

This site operates a waste minimisation and segregation policy. It is your responsibility to understand what this policy is and how you need to work in order to comply with it.

MATERIALS STORAGE

Materials must be stored in an appropriate place so that they are not damaged prior to them being fitted.

MATERIALS REUSE

Material off cuts should be considered for reuse prior to them being put into a skip.

SKIP MANAGEMENT

Waste materials shall be put into the appropriate skip; the skips are labeled as described below:

- **Green** for timber off cuts.
- **Yellow** for bricks, block, concrete and mortar materials – wherever possible clean bricks and blocks should be reused.
- **Red** for general non-recyclable waste.

DO'S AND DON'TS WITH WASTE MANAGEMENT

Do:

- use Group procurement;
- store materials properly;
- segregate waste streams;
- ask the telehandler driver for an empty skip if you need it;
- ask if you are confused about this waste policy

DON'T:

- burn waste;
- mix waste streams;
- think it's someone else's responsibility to place off cuts of materials in the appropriate skip

Plasterboard waste shall be removed in accordance with the respective subcontractor's contract. Two one-tonne dumpy bags will be provided by Redrow for each plot for the removal of British Gypsum plasterboard off cuts – no other material should be placed in these bags.

Appendix 4 – Skip signage protocol

Active Waste

Plastic Packaging, Paper & Card

Inert Waste

Bricks, Blocks, Roof Tiles

Timber

REDROW HOMES

SUPPLIER APPRAISAL FORM

REDROW

COMPANY:

COMPLETED BY:

1.0 COMPANY DETAILS:

1.1 Company Structure

Operating Company Name:
Address

1.2 Company Officers

Chief Executive
Finance Director
Production Director
Sales/Marketing Director
Design/Technical
Purchasing
Parent Company (if applicable).

1.3 References

Details are required of two customers to whom the product has been provided in the last 12 months and who may be contacted in support of the assessment.

Company Name:	Company Name:
Address	Address
Contact Name:	Contact Name:
Contact Tel No	Contact Tel No

1.4 Other manufacturing/distribution facilities:

1.5 Accounts

Company Turnover in last Financial Year	£
---	---

Profit before tax	£
-------------------	---

Parent Company Turnover	£
-------------------------	---

Parent Company Profit before tax	£
----------------------------------	---

1.6 Product Markets

What is your product share within the UK?	%
---	---

2.0 MANUFACTURE

2.1 Material Sourcing:

2.1.1 Where are raw materials sourced?

2.1.2 Provide details of your key raw material suppliers, are they procured under a formal agreement, location of suppliers etc.

2.1.3 Provide details of all components that are manufactured for you by an independent company:

2.2 Specification

Which European Standards do your finished products comply with?	
PRODUCT	STANDARD

2.3 Production Capacity

What was your total output in the last year?	
What is your maximum output?	

3.0 PRODUCT PERFORMANCE / QUALITY

3.1 Design Life and Warranty Period

If applicable, please state the design life and warrant period for each of the products offered for supply:

Product	Design Life	Warranty Period

3.2 Quality Control

Please provide details of your Material and Quality Controls:

3.3 Production Performance

Has your company experienced any serious production/product issues in the last three years?

Yes ☐ No ☐

If yes, please provide details of the problem and action taken to prevent a reoccurrence:

3.4 Product Packaging

3.4.1 How are your products packaged prior to being despatched?

3.4.2 Please explain how your packaging for the products you supply enables us and our subcontractors to minimise the quantity and wastage of packaging associated with your products?

4.0 SUPPLY ROUTE & STOCKHOLDING

4.1 Do you supply Direct or via Merchants?:

4.1 If via a third party, please provide details of the companies you deal with in the UK. You need only list the major distributors for your product(s):

Merchant	Level of Business
1.	
2.	
3.	
4.	
5.	
6.	

4.2 What is your average stockholding of finished goods?:

PRODUCT	STOCKHOLDING (weeks)

--	--

5.0 SERVICE

5.1 Please confirm the lead time (period from call-off to delivery on-site) on your products:

Product	Lead Time (weeks)

5.2 Please confirm the period required for supplying replacements, if different from the above:

Product	Period (working days)

5.3 Do you have a dedicated contact/department to deal with Customer Service?

Yes ☐ No ☐

5.4 Please confirm your response time for dealing with product defects.

Emergencies:

6.0 DESIGNS

6.1 If there is a design requirement with your product, please confirm the following:

6.1.1) Is design carried out internally? YES NO

6.1.2) If yes, how many in house Designers do you have?

6.1.3) If yes, please provide details of your approach to minimising wastage and the proportion of waste sent to landfill during the supply, fitting and disposal of your products and packaging.

6.1.4) If your design service is contracted please provide details of the companies used:

Company Name	Company Address

d) Please confirm the maximum number of designs that can be produced each week:

Per Week	
----------	--

e) What is your standard response time in working days for providing designs?

Working Days	
--------------	--

7.0 ENVIRONMENTAL

7.1) Is there a communicated and measurable environmental policy in place

Yes or No

7.2) Has your company adopted an Environmental Management system in its Management process?

Yes or No

7.3) Do you operate an EMS that is to ISO14001 or to the Environmental Management Audit scheme (EMAS)?

Yes or No

7.4) Do you have a current Environmental Policy? *(If Yes please provide a copy of your Policy)s*

Yes or No

7.5) Do you have a procedure in place to identify areas of improvement that may reduce the current Environmental impact of your business & do you regularly monitor progress by way of KPIs etc? *(If Yes please provide details below)*

Yes or No

7.6.1) Please confirm that you have read and are prepared to work in accordance with our Waste Management Policy.

Yes or No

7.6.2) If you are unable to accept the requirements of the Waste Management Policy please provide information to explain this position.

7.7) Do you recycle waste material arising from Production?

Yes or No

7.8) Do you record the total amount of waste recycled and are set objectives and targets in place with a view to reducing waste sent to Landfill?

Yes or No

If Yes please insert details:

7.9) Does your factory use recycled material within the manufactured product?

Yes or No

If Yes please insert details

7.10) Please input the total amount of water consumed by the factory/company in the last calendar year (including recycled water)

Litres

7.11) Water/Grey water recycling – Please record the amount of water recycled by the factory/company in the last calendar year.

Litres

7.12) Do you have objectives and targets in place to reduce your water

consumption?

Yes or No

If Yes please insert details below:

7.13) Do you monitor all operations to identify levels of potential pollutants being discharged to air water or land

Yes or No

Please insert details below, providing information on action being taken to reduce the level of discharge

8.0 ENERGY

8.1) Do you utilise Energy/Heat Recovery System within your production plant/s?

Yes / No

If Yes please insert details:

8.2.1) Does your factory/company use Green Fuels (Wind Farms etc) in your manufacturing processes?

Yes / No

8.2.2) If yes please enter the amount of energy provided by Green Fuels

KWH

Please provide details below:

Yes / No

8.3) Does your factory/company have a programme for improving employee's awareness of environmental issues etc together with providing a safe and healthy work area?

--

Please insert details below

Please enter the BRE Green Guide rating for materials supplied to Redrow

Insert Product

Insert Rating

9.0 PACKAGING OF MATERIALS

9.1) Please enter the total amount of packaged materials recovered and recycled by your factory/company in the last calendar year

--

Tonnes

9.2) Please enter the percentage that this represents of the total amount of packing bought by your company in the last calendar year.

%

9.3) Do you have objectives and targets in place to measure and minimise the amount of packaging used?

--

Yes or No

If Yes, please provide details below:

10.0 TRANSPORTATION

10.1 Policy details

Do you have a policy in place covering delivery of material into the factory and on to the customer?

Yes or No

Please insert details below, together with details of any action being taken in order to reduce the fuel consumption and vehicle emissions

10.2.1) What proportion of products are distributed by:

a)	Third Party Logistics Company	%
b)	Own fleet	%
c)	Courier	%

10.2.2) If you use 3rd party logistic companies or couriers to deliver finished products please enter the names of the companies used

10.3) Please enter the total number of transport movements made during the last calendar year by your transport fleet and/or 3rd party companies

No. of Movements

10.4) Do you have a procedure in place to monitor Transport use and are objectives and targets in place with the aim of reducing CO2 emissions and fuel consumption?

Yes or No

If Yes, please provide details below:

10.3) How will you work with us and our subcontractors to minimise wastage of the products you supply (for example through logistics, taking back surplus materials or by providing pre-assembled/pre-cut products)?

11.0 HEALTH, SAFETY, WELFARE & GENERAL ITEMS

11.1) Is there a communicated and measurable Health & Safety Policy in place?

--

Yes or No

11.2) Redrow Homes require all suppliers to comply with current Health and Safety legislation with respect to the goods supplied. Please provide detail relating to any breaches of health and safety legislation that you have been prosecuted for within the last five years:

11.3) Are regular checks conducted of your own premises and those of any third party company who manufacture components used in your finished products to ensure that they provide acceptable working conditions appropriate welfare facilities and adopt ethical working practices?

--

Yes or No

11.4) Do you carry out regular Health and Safety Risk Assessments of all manufacturing processes conducted by you or on behalf of you to ensure they comply with current legislation?

--

Yes or No

11.5.1) The Bribery Act 2010 - has your Company a policy regarding Anti-Bribery?

--

11.6.1) Is there a Code of Ethics/Conduct in place?

--

11.6.2) Do you publish these on your website for viewing?

--

Yes or No

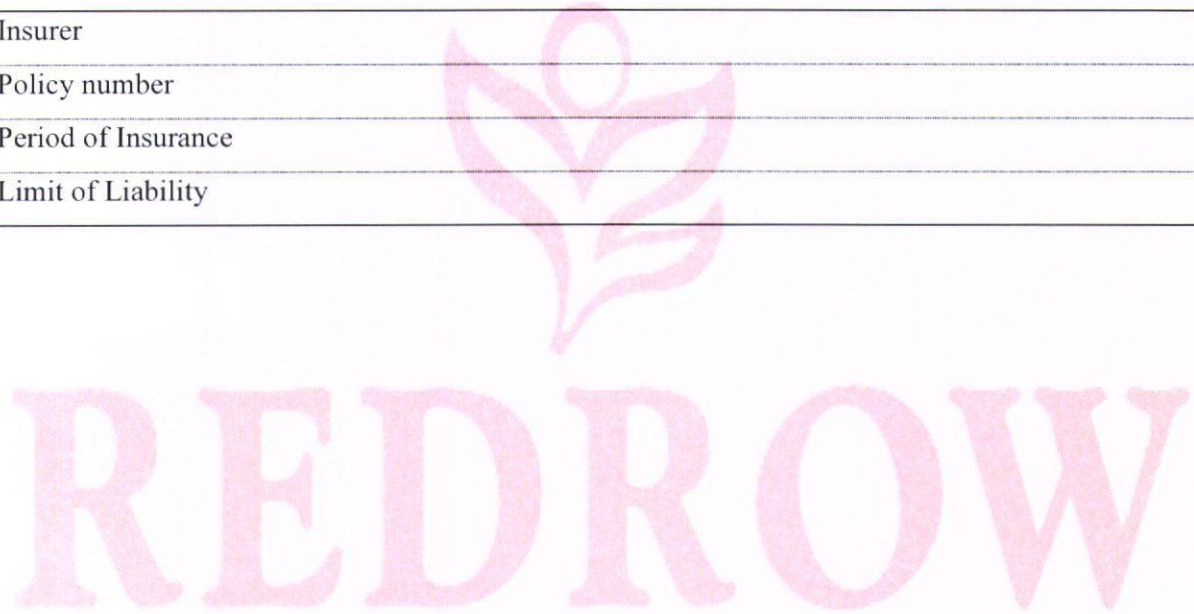
12.0 INSURANCE

Employers Liability Insurance cover of £5m per occurrence to be provided. Details to be as follows:

Insurer
Policy number
Period of Insurance
Limit of Liability

Public/Products Insurance cover of £5m per occurrence to be provided. Details to be as follows:

Insurer
Policy number
Period of Insurance
Limit of Liability



REDROW



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