

# Warranty Agreement

CoWa/P&T

(In Scotland, leave blank.  
For applicable date see  
Testing Clause on page 4)

## THIS AGREEMENT

is made the ~~FIFTH~~ 28<sup>th</sup> day of ~~NOVEMBER~~ March 2019

## BETWEEN:-

(insert name of the  
Consultant)

(1) THE MORTON PARTNERSHIP LIMITED (company registered  
number 02727193)  
of whose registered office is situated at LEONARDO HOUSE, 11  
MARKET PLACE, HALESWORTH, IP19 8BA ("the Consultant"), and

(insert name of the  
Purchaser/the Tenant)

(2) NORTH EAST LONDON NHS FOUNDATION TRUST  
FIRST AND SECOND FLOORS  
whose registered office is situated at THE WEST WING, CEME  
CENTRE, MARSH WAY, RAINHAM, ESSEX RM13 8BB  
("the Purchaser"/"the Tenant" which term shall include all permitted assignees  
under this Agreement).

## WHEREAS:-

(delete as appropriate)

A. The Purchaser/the Tenant has entered into an agreement to purchase/an  
agreement to lease/a lease with

(insert description of the  
premises)

HERITAGE OF LONDON TRUST OPERATIONS LIMITED  
58-60 KING STREET, NORWICH NR1 1P9 ("the Employer") relating to  
THORPE COOMBE HOUSE THE FOREST ROAD AT 1  
SHERNHALL STREET, WALTHAMSTOW, LONDON E17 3AP 3EA ("the Premises")

(delete as appropriate)

[forming part of the project ("the Project"), namely REMEDIAL WORKS

(insert  
description  
of the works)

AS PER THE ATTACHED APPOINTMENT AND INVITATION TO  
TENDER FOR REMEDIAL WORKS DATED OCTOBER 2013  
AT 1 SHERNHALL STREET  
at THORPE COOMBE HOUSE THE FOREST ROAD  
WALTHAMSTOW, LONDON E17 3AP 3EA  
.....]

(delete as appropriate)

(insert date  
of appointment)  
(delete/complete  
as appropriate)

["The Premises" are also referred to as "the Project" in this Agreement.]

B. By a contract ("the Appointment") dated 17<sup>th</sup> APRIL 2013  
the Employer has appointed the Consultant as [architects/consulting structural  
engineers/consulting building services engineers/surveyors] in connection with the Project.

(insert name of  
building contractor  
or "a building contractor  
to be selected by the  
Employer")

C. The Employer has entered or may enter into a contract ("the Building Contract")  
with FLOWERS BUILDERS LIMITED, 68 BEULAH  
ROAD, WALTHAMSTOW, LONDON E17 9LH

for the construction of the Project.

**NOW IN CONSIDERATION OF THE PAYMENT OF ONE POUND (£1) BY THE PURCHASER/THE TENANT TO THE CONSULTANT (RECEIPT OF WHICH THE CONSULTANT ACKNOWLEDGES) IT IS HEREBY AGREED as follows:-**

1. Expressions defined in the Appointment shall have the same meanings when used in this Agreement.
2. The Consultant warrants that it has exercised and will continue to exercise reasonable skill, care and diligence in the performance of the Services to the Employer under the Appointment. In the event of any breach of this Agreement:-

(a) subject to paragraphs (b), (c) and (d) below, the Consultant shall be liable for the reasonable costs of repair renewal and/or reinstatement of any part or parts of the Project to the extent that:-

- the Purchaser/the Tenant incurs such costs; and/or
- the Purchaser/the Tenant is or becomes liable either directly or by way of financial contribution for such costs.

(insert amount)

T MPL

The Consultant shall in addition be liable for other losses incurred by the Purchaser/the Tenant provided that the Purchaser/the Tenant has properly mitigated such losses and such additional liability of the Consultant shall not exceed ~~£2,000,000.00~~ in respect of each breach of the Consultant's warranty contained in this Clause 2.

(b) the Consultant's liability to the Purchaser/the Tenant shall be limited to the proportion of the Purchaser's/the Tenant's losses which it would be just and equitable to require the Consultant to pay having regard to the extent of the Consultant's responsibility for the same, on the following assumptions, namely that:-

- the Project Team has provided contractual undertakings to the Purchaser/the Tenant as regards the performance of their services in connection with the Project in accordance with the terms of their respective consultancy agreements and that there are no limitations on liability as between the Project Team and the Employer in the consultancy agreement[s];
- the Contractor has provided contractual undertakings to the Purchaser/the Tenant in respect of the Building Contract (save in respect of the Services);
- that the Project Team and the Contractor have paid to the Purchaser/the Tenant such proportion of the Purchaser's/the Tenant's losses which it would be just and equitable for them to pay having regard to the extent of their responsibility for the Purchaser's/the Tenant's losses.

(c) the Consultant shall be entitled in any action or proceedings by the Purchaser/the Tenant to rely on any limitation in the Appointment and to raise the equivalent rights in defence of liability as it would have against the Employer under the Appointment;

(d) the obligations of the Consultant under or pursuant to this Clause 2 shall not be released or diminished by the appointment of any person by the Purchaser/the Tenant to carry out any independent enquiry into any relevant matter.

T MPL 13.

(delete where  
the Consultant is  
the quantity  
surveyor)

Without prejudice to the generality of Clause 2, the Consultant further warrants that it has exercised and will continue to exercise reasonable skill, care and diligence to see that, unless authorised by the Employer in writing or, where such authorisation is given orally, confirmed by the Consultant to the Employer in writing, it specifies materials for use on the Project in accordance with the guidelines contained in the edition of the publication "Good Practice in Selection of Construction Materials" (1997: Ove Arup & Partners) current at the date of specification and/or that it has exercised and shall continue to exercise reasonable skill, care and diligence in the course of performing the Services to the Employer to see that materials as used in construction of those parts of the Project to which the Services relate shall be in accordance with such guidelines. In the event of any breach of this warranty the provisions of Clauses 2(a), (b), (c) and (d) shall apply.]

4. The Purchaser/the Tenant has no authority to issue any direction or instruction to the Consultant in relation to the Appointment.
5. All Intellectual Property in the Design Documents shall remain vested in the Consultant but, subject to the Employer having tendered and/or the Consultant having received payment of any fees agreed as properly due under the Appointment, the Purchaser/the Tenant and its appointee shall have an irrevocable, perpetual, royalty-free, non-exclusive licence to copy and use the Design Documents and to reproduce the designs and content of them for any purpose related to the Project including, but without limitation, the construction, completion, maintenance, letting, sale, promotion, advertisement, reinstatement, refurbishment and repair of the Project. Such licence shall enable the Purchaser/the Tenant and its appointee to copy and use the Design Documents for the extension of the Project but such use shall not include a licence to reproduce the designs contained in them for any extension of the Project. Such licence shall continue to subsist notwithstanding the termination (for any reason) of the Appointment. The Consultant shall not be liable for any use by the Purchaser/the Tenant or its appointee of any of the Design Documents for any purpose other than that for which the same were prepared by or on behalf of the Consultant.
6. The Consultant shall maintain professional indemnity insurance in the amount <sup>referred to in clause 2 (a) TML</sup> and for the period <sup>9</sup> referred to in Clause 8 of the Appointment provided always that such insurance is available in the market at reasonable premium rates. The Consultant shall immediately inform the Purchaser/the Tenant if such insurance ceases to be available in the market at reasonable premium rates in order that the Consultant and the Purchaser/the Tenant can discuss means of best protecting the respective positions of the Purchaser/the Tenant and the Consultant in the absence of such insurance. As and when it is reasonably requested to do so by the Purchaser/the Tenant or its appointee the Consultant shall produce for inspection documentary evidence that its professional indemnity insurance is being maintained.
17. The rights conferred by this Agreement may be assigned without the consent of the Consultant by the Purchaser/the Tenant by way of absolute legal assignment to another person ("P1") taking an assignment of the Purchaser's/the Tenant's interest in the Project and by P1, by way of absolute legal assignment, to another person ("P2") taking an assignment of P1's interest in the Project without the consent of the Employer or the Consultant being required, and such assignment shall only be effective upon written notice thereof being given to the Consultant. No further or other assignment shall be permitted.
- [7S. The Purchaser/the Tenant shall be entitled to assign or transfer its rights under this Agreement, without the consent of the Consultant being required, to another person ("P1") taking an assignation of the Purchaser's/the Tenant's interest in the Project and P1 shall be entitled to assign or transfer those rights, without the consent of the Employer or the Consultant being required, to another person ("P2") taking an assignation of P1's interest in the Project and such assignation shall only be effective upon written notice of such assignation being given to the Consultant in accordance with Clause 8 hereof. No further or other assignation shall be permitted.]
8. Any notice to be given by the Consultant hereunder shall be deemed to be duly given if it is delivered by hand at or sent by registered post or recorded delivery to the Purchaser/the Tenant at its registered office and any notice given by the Purchaser/the Tenant hereunder shall be deemed to be duly given if it is addressed to "The Senior Partner"/"The Managing Director" and delivered by hand at or sent by registered post or recorded delivery to the above-mentioned address of the Consultant or to the principal business address of the Consultant for the time being and, in the case of any such notices, the same shall if sent by registered post or recorded delivery be deemed to have been received 48 hours after being posted.

this Warranty  
Agreement  
TML

(delete if under  
Scots law)

(delete if under  
English law)

TML

and provided that  
any assignments by way of security or to any  
Party providing finance in respect of the  
Project or the Premises shall be permitted  
and shall not count towards such two  
permitted assignments provided the name of  
of the funder is made known to the Consultant prior to such assignment

9. No action or proceedings for any breach of this Agreement shall be commenced against the Consultant after the expiry of 12 years from the earlier of the date of practical completion of the Project under the Building Contract or the completion or abandonment of the Services under the Appointment- **5 November 2027 TMPL**

(delete if under  
Scots law)  
**TMPL**

10. The construction validity and performance of this Agreement shall be governed by English law and the parties agree to submit to the non-exclusive jurisdiction of the English Courts.

**IN WITNESS WHEREOF** this Agreement was executed as a Deed and delivered the day and year first above written

**by the Consultant**

**by the Purchaser/the Tenant**

(delete if under  
English law)

[10S. This Agreement shall be construed and the rights and obligations of the parties and all matters arising hereunder shall be determined in all respects according to the Law of Scotland. The parties to this Agreement prorogate the exclusive jurisdiction of the Court of Session.]

**IN WITNESS WHEREOF** these presents are executed as follows:-

**SIGNED** by the above named Consultant at.....

on the.....day of.....Two thousand and.....

as follows:-

.....(Consultant's Signature)

Full Name .....

Status .....

Address .....

.....(Witness's Signature)

Full Name .....

Address .....

Occupation .....

Or

**SIGNED** by the above named Consultant at **THE MORTON PARTNERSHIP LTD**

on the **16<sup>th</sup>** day of **January** Two thousand and **nineteen**

as follows:-

For and on behalf of the Consultant

.....Director/Authorised Signatory

.....Director/Authorised Signatory



**SIGNED** by the above named Purchaser/Tenant at .....  
on the.....day of.....Two thousand and.....  
as follows:-

.....(Purchaser's/Tenant's Signature)

Full Name .....

Status .....

Address.....

.....(Witness's Signature)

Full Name .....


Address .....

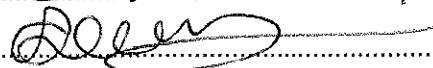
Occupation .....

Or

**SIGNED** by the above named Purchaser/Tenant at NORTH EAST LONDON NHS  
FOUNDATION TRUST  
on the 26<sup>th</sup> day of MARCH Two thousand and 19  
as follows:-

For and on behalf of the Purchaser/Tenant

.....Director/Authorised Signatory

.....Director/Authorised Signatory

(to be amended as appropriate)

Registered in England No. 2727193

THE MORTON PARTNERSHIP LTD.

CONSULTING CIVIL & STRUCTURAL ENGINEERS,  
HISTORIC BUILDING SPECIALISTS

Old Timber Yard House, 55 The Timber Yard

Drysdale Street, London N1 6ND

Tel: 020 7324 7270 Fax: 020 7729 1196

email: [london@themortonpartnership.co.uk](mailto:london@themortonpartnership.co.uk)

[www.themortonpartnership.co.uk](http://www.themortonpartnership.co.uk)

Our ref: EJM/MC/14582~01

17<sup>th</sup> April 2013

Malcolm Crowder  
Heritage of London Trust Operation Ltd  
58-60 King Street  
Norwich  
Norfolk NR1 1PG

By email

Dear Malcolm,

**RE: THORPE COOMBE HOUSE, FOREST ROAD, E17 – SUBSIDENCE INSURANCE CLAIM**

Further to Cunningham Lindsey's recent correspondence with you regarding the above, we are writing with our fee quotation for preparing a specification and schedule of works for carrying out structural repairs to the building. We understand that Cunningham Lindsey, believe the movement that has occurred is as a result of ground heave, however that they are planning to continue with the monitoring through the summer.

We previously spoke about the possibility of asking Cunningham Lindsey to obtain advice from an arboriculturalist, in order to understand whether the sycamore and oak trees at the front of the property can be retained.

In preparing our fee we have allowed for providing the same services as we did in 2005/6, when the previous phase of repairs were carried out. At this time, we acted as Contractor Administrator and provided the following services:

- Site survey and study of monitoring data to identify those areas of damage arising as a consequence of ground movement;
- Design, documentation and specification of appropriate repairs to those areas deemed to result from ground movement. Documentation to be suitable for tender and construction purposes;
- Repair documentation will include the finishes to these areas;
- Construction phase services including full contract administration;
- We have not assumed that digital plans and elevations will be available. No project meetings have been allowed for during design phase;
- Underpinning work is excluded at this time. The need for this will be subject to the monitoring results of the coming summer;
- Tenders for repairs are expected to be sought soon after this summer with a view to a contract being let soon after that.

We propose carrying out the above works under a percentage of the contract costs. Our fixed fee for carrying out the above works would be **12%** of the final contract costs + VAT. We hope we have interpreted your requirements correctly and of course please do not hesitate to call me if you have any queries.

Yours sincerely  
**FOR THE MORTON PARTNERSHIP LIMITED**



**EDWARD MORTON**



## The Morton Partnership

Registered in England No. 2727193

THE MORTON PARTNERSHIP LTD.

CONSULTING CIVIL & STRUCTURAL ENGINEERS,  
HISTORIC BUILDING SPECIALISTS

Old Timber Yard House, 55 The Timber Yard

Drysdale Street, London N1 6ND

Tel: 020 7324 7270 Fax: 020 7729 1196

email: [london@themortonpartnership.co.uk](mailto:london@themortonpartnership.co.uk)

[www.themortonpartnership.co.uk](http://www.themortonpartnership.co.uk)

**INVITATION TO TENDER  
FOR REMEDIAL WORKS  
TO THORPE COOMBE HOUSE  
FOREST ROAD, E17**

**Client:** Heritage of London Trust Operations Ltd.  
58 – 60 King Street  
Norwich  
NR1 1PG

**Loss Adjuster:** Cunningham Lindsey UK  
Third Floor  
Aquila House  
London Road  
Redhill RH1 1NJ

**Prepared by:** The Morton Partnership Ltd.  
Old Timber Yard House  
55 The Timber Yard  
Drysdale Street  
London N1 6ND

**Date:** October 2013

**Reference:** MC\MC\REP\14582~inv

**CONTENTS:**

Instructions to Tenderers

Preambles

Form of Tender

Insurances

1.0	General Conditions and Preliminaries	Page No. 1/6
2.0	Provisional Sums and Dayworks	Page No. 2/1
3.0	Specification	Page No. 3/1
4.0	Schedule of Work	Page No. 4/1

**APPENDICES:**

- A      Sketches
- B      Helifix Bow Tie details

Rev	Comments	Engineer	Date
0	Issued for comment	MC	Jan '14



**INSTRUCTIONS TO TENDERERS**

- a) THIS SPECIFICATION comprises pages in numerical sequence and Contractors are requested to check each page number and to notify the Contract Administrator at once if any pages are missing or duplicated. Should there be any doubt or ambiguity as to the meaning of any part of the specification, the Contractor must ask for clarification before tendering. No subsequent claims for loss consequent upon the Contractors failure to comply with this clause will be entertained.
- b) The Tenderer shall not alter the text or any other component of the tender documents without the written authorisation of the Contract Administrator prior to the date for the submission of the tenders. Any unauthorised amendment shall be ignored.
- c) A price shall be entered against each item in the Preliminaries and Schedule of Works sections; any item not priced will be deemed to have been allowed for in the other prices. Tenderers are to complete all tender documents.
- d) Before a tender is accepted an analysis of all the prices in the Preliminaries shall be provided; the analysis shall include, in respect of temporary works and accommodation, separate details of setting up, maintaining, moving, clearing away and the like in order that interim payments may be equitably valued and any adjustment of Preliminaries can be satisfactorily assessed.
- e) Tenderers will be required to submit the following upon request after the tenders are returned.
  - 1) An outline programme showing the various activities for all sections of work;
  - 2) Details of the insurance they propose to effect, or which they already hold and intend to use, to meet the requirements of the said Conditions of Contract. The policy should cover the whole of the minimum amount stated in the Conditions of Contract. Any questions concerning insurance terms, including the amount of excess, must be raised with the Contract Administrator before return of the tender;
  - 3) Proposals for siting any site office, plant yards, stockpiles etc. in order to consider the effect of such siting upon the employment of the neighbouring lands. Note that these will need to be in accordance with the site plan.
- f) Tenders should be sent in a plain sealed envelope (provided), not bearing any indication of the Tenderer marked on the envelope or in the franking thereon so as to arrive not later than the time and date stated in the letter of invitation to tender.
- g) The Employer is not bound to accept the lowest or any tender
- h) The Employer accepts no liability for any costs incurred in the preparation or submission of tenders.
- i) Any obvious errors in pricing or significant errors in arithmetic discovered before acceptance of the tender shall be dealt with in accordance with The Code of Practice for the selection of Main Contractors (May 1997); the rates are pre-dominant. Notwithstanding these requirements by agreement between the Contractor and the Contract Administrator, minor adjustments may be made to items in Preliminaries or the Schedule of Works or the like to provide the correct total without necessitating a percentage adjustment to all rates.

**INSTRUCTIONS TO TENDERERS (Cont'd)**

- j) The following drawings are supplied with the Tender Documents.
- 1) The Morton Partnership Drawings:
- 14582/A3/01
  - 14582/A3/02
  - 14582/A3/03
  - 14582/A3/04
  - 14582/A3/05
  - 14582/A3/06
  - 14582/A3/07
  - 14582/A3/08
  - 14582/A3/09
- k) The Tender Sum must be exclusive of VAT. Any VAT properly chargeable by the Contractor on goods or services supplied under the Contract will be payable by the Employer in accordance with the Contract.

**PREAMBLES**

- 1.0 The following specification and schedule of works have been commissioned to repair Thorpe Coombe House, Forest Road, E17 following damage associated with ground movement.
- 1.1 The building is listed and of special architectural and historical interest and the Contractor should take due care and attention to ensure that no works other than specified are carried out unless agreed with the Local Authority.
- 1.2 The general overall scope of works is set out in the Schedule of Works and includes for the repairs to the external facades and interior.

## FORM OF TENDER

Tender for: Remedial Works to Thorpe Coombe House, Forest Road, E17.

To Heritage of London Trust Operations Ltd. c/o The Morton Partnership Ltd, 55 The Timber Yard, Drysdale Street, London N1 6ND

Name of Tenderer: .....

I/We\* having examined the Conditions of Contract and Specification delivered to me/us\* do hereby offer to execute and complete the whole of the Works described for the sum of

£..... (in words)  
(£.....) and do hereby undertake to complete and deliver up the whole of the Works within our indicated Contract period.

I/We\* agree that this tender shall remain open for acceptance for a period of twelve weeks from the date for submission tenders and that until such time that a formal contract is executed, this tender, together with your written acceptance thereof, shall constitute a binding Contract between us.

I/We\* understand that the Client is not bound to accept the lowest or any tender received and that this is a fixed price tender which will not be subject to any fluctuations in cost for the work described in the Schedule of Works.

I/We\* certify that this is a bona fide tender, and that I/We\* have not fixed or adjusted the amount of the tender by, or under, or in accordance with, any agreement or arrangement with any other person.

Commencement Date: ..... (Subject to agreement from Client)

Completion Date: .....

Contract Period: .....

Signed: .....

in the capacity of:.....

Duly authorised to sign tenders for and on behalf of:.....

Address:.....

.....Post Code:.....

Telephone No:..... Fax No:.....

Date:..... \*Insert/Delete as appropriate.



**INSURANCES**

- a) The Tenderer's attention is drawn to the amended contract conditions relating to liabilities and insurances.
- b) The Tenderer should ensure sub-contractors are aware of the provisions of this insurance and, if awarded this contract, extend benefit of it to them.
- c) The Tenderer's attention is drawn to the need to continue any insurance required by law and, if appropriate, marine, aviation and professional indemnity insurance.
- d) Each party insured (the Contractor, sub-contractors and the Employer) is equally subject to the exclusions, limits, terms and conditions (whether implied in law or expressed in the policy) of the insurance.
- e) If any event occurs which may give rise to any claim or proceeding in respect of loss or damage to the works or injury or damage to persons or property arising out of the works, forthwith give notice in writing to the Employer (through the Contract Administrator) and the Insurers. Indemnify the Employer against any loss which may be caused by the Contractor's failure to give such notice.
- f) Before starting work on site submit to the Employer (through the Contract Administrator) documentary evidence and/or policies and receipts for insurance which are required to be taken out by the Contractor.
- g) Injury or death of persons. Injury or damage to property.

"Insurance cover for any one occurrence or series of occurrences arising out of any one event shall be not less than £5,000,000.00".



**1.0 GENERAL CONDITIONS AND PRELIMINARIES**

**1.1 General Conditions**

**1.1.1 Project Title:**

- a) Remedial works to Thorpe Coombe House, Forest Road, E17.

**1.1.2 Employer (Client) :**

- a) Heritage of London Trust Operations Limited  
58-60 King Street  
Norwich  
NR1 1PG
- b) Contact : Malcolm Crowder

**1.1.3 Contract Administrator & Structural Engineer:**

- a) The Morton Partnership Limited  
Old Timber Yard House  
55 The Timber Yard  
Drysedale Street  
London  
N1 6ND  
Tel : 020 7324 7270  
Fax : 020 7729 1196  
Email : london@themortonpartnership.co.uk
- b) Contact : Mary Claxton

**1.1.4 Tenant:**

- a) North East London Mental Health NHS Trust  
Thorpe Coombe House  
712 Forest Road  
Waltham Forest  
London  
E17 3HF
- b) Contact: Joanne Guerin

**1.1.5 Description of the Works:**

- a) Remedial works to subsidence damage at Thorpe Coombe House & additional masonry repairs.

**1.1.6 Locations of Works and Access:**

- a) The works are to be carried out on Thorpe Coombe House, Forest Road, E17.

- b) Access from Forest Road, care is necessary due to the busy nature of Forest Road and the adjoining Hospital car park area. There is access to the rear of the property through the adjoining Hospital car park.

- c) Parking will be adjacent to the building in the hospital car park.

1.1.7 Power:

- a) The Contractor will be permitted to use any power supply in the building (the adequacy of the supply has not been checked) on payment of a mutually agreed charge with the Employer. The Contractor to allow for providing all associated temporary works and distribution around the site.

1.1.8 Water:

- a) The Contractor will be permitted to use any water supply to the building (the adequacy of the supply has not been checked) etc as necessary. The Contractor to allow for providing all associated temporary works and distribution around the site.

1.1.9 WC Facilities:

- a) The WC within the building may be used. This should be regularly cleaned.

1.1.10 Unloading:

- a) Vehicles loading or off-loading materials etc. must not be positioned in such a way as to stop other vehicles passing and all vehicles must have a driver in attendance at all times.

1.1.11 Notices & Fees:

- a) Give all notices due to Local Authority and Public undertakings and pay all fees and dues including any fees or licences required.

1.1.12 Working Area:

- a) To be confined to the working area as agreed between the Employer and the Contractor. Rest facilities can be set up within the building due to lack of parking areas etc. However protection will be needed in any mess areas to avoid any unnecessary damage.

1.1.13 Materials Storage:

- a) Limited storage within the building will be permitted. An external materials storage area is to be agreed with the Client.

1.1.14 Working Hours:

- a) To be restricted between Monday and Friday 08.00–17.00 unless otherwise agreed with the Client.

1.1.15 Stability:

- a) Accept responsibility for the structural integrity of the works during the Contract, and support as necessary.

1.1.16 Rubbish:

- a) Remove rubbish and debris daily, and keep site and works clean and tidy. Allow for skips and the like throughout the contract to be placed in a position agreed with the Insured.

1.1.17 Services:

- a) The Contractor is to ascertain the position of all existing services.

1.1.18 Safety, Health & Welfare:

- a) Allow for providing everything necessary for the safety, health and welfare of the Contractor, sub-contractor and directly employed work people in compliance with all enactment's, regulations, working rules and all legislative Acts and Regulations. The Contractor is to provide appropriate barriers and notices etc. When work is ceased the site is to be left safe and secure

1.1.19 Workmanship/Materials etc:

- a) All materials, products and workmanship are to be suitable for the purpose of the work in accordance with good building practice including the relevant provision of the BSI Documents and Codes of Practices.

1.1.19 Plant, Tools & Vehicles:

- a) Provide all plant, tools, vehicles, labour etc necessary for the completion of the works.

1.1.20 Scaffold:

- a) The Contractor to allow for all scaffold necessary to undertake the works including all hire charges, alterations etc. See schedule of works item 4.10.

1.1.21 CDM Regulations:

- a) All the Construction (Design and Management) Regulations 2007 apply to the work.

1.1.22 Scope of Works:

- a) The Contractor is to complete all work shown on the drawings and specifications and all work which may be reasonably inferred from the drawings and specifications and which is necessary for the structural stability and durability of the building/structures, or for the proper function of the building/structure or to bring it to an acceptable standard of completeness. The Contractor is to allow, in pricing, for all this work whether shown or inferred.

1.1.23 Inspecting Site:

- a) The Contractor shall examine the drawings, inspect the site and be acquainted with the conditions and restrictions likely to affect the execution of the works, the working space, means of access and details of matters concerning the site prior to submitting a tender. No claims arising from failures to do so will be considered.



- b) Access can be arranged through The Morton Partnership Limited (Old Timber Yard House, 55 The Timber Yard, Drysdale Street, London, N1 6ND. Tel: 020 7324 7270. Fax: 020 7729 1196).

#### 1.1.24 Building in Occupation:

- a) The Employer will not be in occupation during the course of the works, but may visit during the course of the works and at weekends. Therefore it is essential that the building is left in a safe condition at the end of each working day and at weekends. If there are any areas where the Employer should not enter these should be clearly taped off with hazard tape.
- b) The Contractor should ensure that the property remains secure at all times during the project including when the building is not occupied.

### 1.2 Form of Contract

#### 1.2.1 The Agreement for Minor Building Works:

- a) The form of Contract will be the Joints Contract Tribunal Agreement for Minor Building Works 2011.
- b) The Contractor shall allow for complying with the Contract and any amendments and supplementary requirements as set forth under. Amendments to the Contract will be written into both copies, prior to formal execution.

Employer: Heritage of London Trust Operations Ltd.  
58 – 60 King Street  
Norwich  
NR1 1PG

#### 1.2.2 Recitals:

- a) 1<sup>st</sup> The Employer wishes the following work "Remedial works associated with the subsidence damage and associated other works to Thorpe Coombe House, Forest Road, E17.", to be carried out under the direction of "The Morton Partnership Ltd". Delete "the Architect".  
Drawings numbered 14582/A3/01.  
14582/A3/02  
14582/A3/03  
14582/A3/04  
14582/A3/05  
14582/A3/06  
14582/A3/07  
14582/A3/08  
14582/A3/09
- 2<sup>nd</sup> Delete "or provided a schedule of rates".
- 3<sup>rd</sup>
- 4<sup>th</sup> Will be deleted.
- 5<sup>th</sup>
- 6<sup>th</sup> Will be deleted.
- 7<sup>th</sup>



1.2.3 ARTICLES:

- a) 1 Contractor's Obligations.
- 2 Contract Sum.
- 3 Architect / Contract Administrator.  
Delete "Architect".  
The Morton Partnership Ltd
- 4 CDM Co-ordinator  
Delete Architect/Contract Administrator  
..... of .....
- 5 Principal Contractor
- 6 Adjudication
- 7 Arbitration
- 8 Legal Proceedings  
Delete Article 8

1.2.4 CONTRACT PARTICULARS:

- a) The following is a schedule of amendments and additions which are to be incorporated into the Contract.
- b) 1) Fourth Recital and Schedule 2 –  
Base Date – April 2011.
- 2) Fourth Recital and clauses 4.2 -  
Employer at the Base Date is not a contractor for the purposes of the CIS.
- 3) Fifth Recital -  
The project is notifiable.
- 4) Seventh Recital and Schedule 3 -  
Paragraph 1 - Collaborative working applies.  
Paragraph 2 – Health and Safety applies.  
Paragraph 3 – Cost Savings and Value Improvements applies.

Paragraph 4 – Sustainable Development and Environmental Considerations applies.

Paragraph 5 – Performance Indicators and Monitoring does not apply.

Paragraph 6 – Notification and Negotiation of Disputes applies.

5) Article 7 - Arbitration

Article 7 and Schedule 1 (Arbitration) apply.

6) Clause 1.1 – CDM Planning Period

Does not apply.

7) Clause 2.1

Insert at the end of the clause:

"Should the Contractor consider that additional detailed drawings or information are required, he shall apply in writing for such drawings at least fourteen days before they are required to enable the works concerned to be executed to programme"

"Ascertain from the drawings or otherwise any holes, recesses, plugs etc., which may be required in time for these to be formed as the works proceed as no extra payment will be allowed for cutting or forming these subsequently".

8) Clause 2.2

Dates for commencement and completion to be agreed.

9) Clause 2.8

Liquidated damages to be £200 per week or part thereof

10) Clause 2.10

Rectification Period will be six months from the date of practical completion.

11) Clause 3.2

Person-in-charge - insert at the end of this clause

"The Contractors representative shall not be changed without one months notice to the Contract Administrator".

12) Clause 3.4

Architect/Contract Administrator's Instructions – 3<sup>rd</sup> line, delete 2 and insert 7.

## 13) Clause 4.3

Progress payments and retention - Percentage for the total value of work etc will be 95%. The final date for payment by the Employer of the amount so certified shall be 28 days (delete 14 days) from the date of issue of that certificate. Insert at the end of this clause:

"The Contractor shall send to the Contract Administrator a detailed statement showing approximate value of work executed by the end of the first week in each month before the issue of each interim certificate to the Contract Administrator".

## 14) Clause 4.4

Penultimate Certificate - Percentage of the total amount to be paid to the Contractor will be 97½%. Delete 14 days and insert 28 days in both 1<sup>st</sup> line and 9<sup>th</sup> Line.

## 15) Clause 4.8.1

Final Certificate - Supply of documentation for computation of amount to be finally certified will be 6 months.

## 16) Clause 4.11 and Schedule 2

Contribution, levy and tax changes – Delete this clause.

## 17) Clause 4.11 and Schedule 2

Percentage addition for fluctuations option to be deleted.

## 18) Clause 5.3.2

Contractor's Insurance for injury to persons or property Insurance cover (for any one occurrence or series of occurrences arising out of one event shall be £1,000,000.

## 19) Clause 5.4A, 5.4B and 5.4C

Insurance for the Works – Delete 5.4A and 5.4C. Insert at the end of this clause

"The Contractor shall be responsible for the insurance against theft of all unfixed materials, goods and plant on site. This to include all salvaged materials".

Percentage to cover professional fees to be 17per cent.

## 20) Clause 7.2

Adjudication – The Adjudicator is The Royal Institution of Chartered Surveyors

## 21) Schedule 1 (paragraph 2.1) – Appointer of Arbitrator is President of Vice-President of The Royal Institution of Chartered Surveyors.



### **1.3 Preliminary and General Requirements**

#### **1.3.1 General:**

- a) Allow hereunder for preliminary and generals costs (in addition to those previously referred to in the contract conditions), for the efficient management and execution of the Works. Temporary works shall include adapting and maintaining as necessary and clearing away and making good when no longer required. Protection shall include taking whatever means are necessary to prevent damage and/or deterioration due to weather, works activities or any other cause. Comply with Acts, regulations and bylaws etc., and any order issued by those with authority over the Works (subject to approval).
- b) Use by Contractors: Read in conjunction with all other sections and the drawings. If any part of the Specification is detached for use by other parties (e.g. sub-contract quotes) ensure that a copy of this section is also provided.

#### **1.3.2 Scope of Works:**

- a) The Contractor is to complete all work shown on the drawings and specifications and all work which may be reasonably inferred from the drawings and specifications and which is necessary for the structural stability and durability of the building/structures, or for the proper function of the building/structure or to bring it to an acceptable standard of completeness. The Contractor is to allow, in pricing, for all this work whether shown or inferred.

#### **1.3.3 Rates, Notices, Fees and Charges:**

- a) Give all notices and pay all fees, rates and charges required by the Local Authorities, Public Services or Statutory Undertaker in connection with the works and any temporary structures.

#### **1.3.4 Documents Provided On Behalf of the Employer:**

- a) Two additional copies of the specification and drawings (excluding tender and contract copies) will be provided free of charge to the Contractor. Additional copies will be issued on request but will be charged to the contractor.

### **1.4 Specification/Pricing/Submission of Documents**

#### **1.4.1 Allow In Pricing:**

- a) Any item which the Contractor notices which is omitted from the drawings, specifications and schedules and which is necessary for the proper completion of the works and state this with an additional price, in a letter which should accompany the tender.

#### **1.4.2 Contingency/Provisional Sums:**

- a) Such sums shall be used as directed by the Contract Administrator and deducted in whole or in part if not instructed to be used.



**1.4.3 Provisional Sums:**

- a) Sums set against provisional items of works do not include any costs of a preliminary nature and any claim for such will not be allowed. Include in the specification for any such costs.

**1.4.4 Credit:**

- a) Where credit is to be given show as a separate item in the tender Summary. The Tender sum should not include these items. Allow for all transport charges and handling for each item.

**1.4.5 Specification Without Quantities:**

- a) Where and to the extent that quantities are not included in the specification, tenders must include for all work shown or described in the Contract Documents as a whole or apparent as being necessary for the complete and proper execution of the works.

**1.4.6 Submission of Tender:**

- a) Tenders must be submitted on the Form of Tender provided, and include a full **breakdown on an item for item basis and must arrive at The Employer's Office by Noon on ..... 2014.** Tenders arriving after this time will be rejected.

**1.4.7 Assignment and Sub-Letting:**

- a) Do not assign or sub-let any part of the Contract without written consent.

**1.4.8 Attendance on Sub-Contractors:**

- a) The Contractor shall provide free of charge to any sub-contractor all reasonable hoisting facilities, water, electricity, and watching for the purpose of the Sub-contract Works, space for the storage of materials for use on site and the use of mess rooms, sanitary accommodation and welfare facilities.

**1.5 Provision, Use and Interpretation of Documents****1.5.1 DIMENSIONS:**

- a) Obtain from the Contract Administrator any dimensions required. For work to existing buildings, ascertain required dimensions by site measurement. Do not scale from the drawings.

**1.5.2 Maintenance Instructions and Guarantees:**

- a) Provided by product and equipment two copies of manufacturers instructions to be handed over to Contract Administrator on or before practical completion.

**1.5.3 Definitions:**

- a) The meaning of terms, derived terms and synonyms used in the specification to be as defined below or in the appropriate Eurocode, British Standard or British standard Glossary.

## 1.5.3.1 In Writing:

- a) When required to inform, instruct, agree, confirm, obtain approval or obtain instructions, do so in writing.

## 1.5.3.2 Approval:

- a) Terms such as 'approval', 'approved by', 'to approval', 'as directed' and the like, refer always to approval or directions given by the Contract Administrator and must be given in writing. When the Contractor seeks approval adequate notice shall be given in order that arrangements can be made. Unless otherwise specified in the written approval, approval will be limited to the visual appearance of the work, materials or goods involved but is not to limit any requirement of this Contract particularly in relation to the kind and standards of materials, goods and work.
- b) Where products, materials or work are specified to be approved or the Contract Administrator instructs or requires that they are to be approved, the same must be supplied and executed to comply with all other requirements and in respect of the stated or implied characteristics either:
  - 1. to the express approval of the Contract Administrator or,
  - 2. to match a sample expressly approved by the Contract Administrator as a standard for the purpose.
- c) Inspection or any other action by the Contract Administrator must not be taken as approval of materials, products or work unless the Contract Administrator so confirms in writing in express terms referring to:
  - 1. Date of inspection.
  - 2. Part of work inspected.
  - 3. Respects or characteristics which are approved.
  - 4. Extent and purpose of the approved.
  - 5. Any associated conditions.

## 1.5.3.3 References to BSI Documents:

- a) Are to be the versions and amendments current one month before the date of this specification unless stated otherwise.

## 1.5.3.4 To Match Existing:

- a) Means use products, materials and methods to closely match all visual characteristics and features of the existing work, with joints between existing and new work as inconspicuous as possible, all to approval and to additional specified requirements.

## 1.5.3.5 Remove:

- a) Means remove existing work so described and all associated accessories, fastenings, linings and bedding materials, without damaging adjacent work to be retained, and make good. 'Form' or 'cut' openings etc. means remove as necessary.

## 1.5.3.6 Re-Use/Re-Fix:

- a) Means:
  - 1. Carefully remove existing work required to be re-fixed.

2. Remove fastenings and bedding materials from products/materials and clean and repair as necessary.
3. Set aside and adequately protect until required.
4. Re-locate accurately and fix securely using fixing and jointing materials and methods to match existing, or approved alternatives, and make good.
5. Comply with additional specified requirements.

**1.5.3.7 Make Good:**

- a) Means carry out local remedial work, including the following as appropriate and necessary to leave the work sound and neat to approval:
  1. Remove defective parts of existing finishes and components in and around any stated features.
  2. Fill, dress down, piece-in, patch, extend existing finishes, make minor repairs and adjustments.
  3. Re-fix or re-stick.

**1.5.3.8 Making Good:**

- a) Consequent upon alteration, extension and maintenance work is deemed to be included in such items.

**1.5.3.9 Renew:**

- a) Means carefully remove existing work and replace:
  1. With materials/products identical to those removed or approved substitutes.
  2. Using methods similar to those used in constructing the removed work or approved alternatives.
  3. To meet additional specified requirements.

**1.5.3.10 Fix Only:**

- a) Means all labour in unloading, handling, sorting and fixing in position, including use of all plant.

**1.5.3.11 Supply And Fix:**

- a) Means unless stated otherwise, all items given in work sections and/or on the drawings are to be supplied and fixed complete.

**1.5.3.12 Similar/Equivalent Products:**

- a) Where the specification permits substitution of a product of different manufacturer to that specified and such substitution is desired, before ordering the product notify the Contract Administrator and, when requested, submit for approval documentary evidence that the alternative product is equivalent in respect of materials, safety, reliability, fitness for purpose, compatibility with adjacent construction, availability of compatible accessories and where relevant, appearance. Submit certified English translations of foreign documents.



**1.5.4 Copyright:**

- a) All tender documents and drawings, specifications and schedules are the copyright of The Morton Partnership Ltd. Do not reproduce without written authorisation. Return documents if requested at end of Contract.

**1.6 Control of Time/Quality/Cost****1.6.1 Supervision:**

- a) Accept responsibility for co-ordination, supervision and administration of the works, including all sub-contractors. Arrange and monitor a programme with each sub-contractor, supplier, local authority and statutory undertaker and obtain and supply information as necessary for co-ordination of the work.

**1.6.2 Submission:**

- a) Submission of programmes will not relieve the Contractor of his responsibility to apply in writing for instructions, drawings, etc. in accordance with the Conditions of Contract.

**1.6.3 Commencement of Work:**

- a) Inform the Contract Administrator at least 5 working days before the proposed date for commencement of work on site.

**1.6.4 Adverse Weather:**

- a) Use all reasonable and approved building aids and methods to prevent or minimise delays during adverse weather conditions.

**1.6.5 Access for Contract Administrator and Employer:**

- a) Provide at all reasonable times access to the works and to other places where work is being prepared for the contract.

**1.6.6 Samples:**

- a) Where approval of products or materials is specified submit samples or other evidence of suitability. Do not confirm orders or use materials until approval has been obtained. Retain approved samples on site for comparison with products and material used in the work. Remove when no longer required.
- b) Where samples of finished work are specified obtain approval of stated characteristic(s) before proceeding with the Works. Retain approved samples on site for comparison with the works. Remove samples which are not part of the finished works when no longer required.
- b) Include in prices the cost of providing samples of materials and workmanship required in the specification.

**1.6.7 DEFECT IN EXISTING WORK:**

- a) To be reported to Contract Administrator without delay. Obtain instructions before proceeding with work which may:
  - 1. cover up or otherwise hinder access to the defective construction,
  - or
  - 2. be rendered abortive by the carrying out of the remedial work.

**1.6.8 Existing Finishes:**

- a) The extent to which existing finishes are renewed must be agreed with the Contract Administrator before the work is started. Remove existing finishes in ways which will minimise the amount of removal and renewal.

**1.6.9 Defective Work:**

- a) As soon as possible after any part of the work is known or suspected to be defective, submit proposals to the Contract Administrator for opening up, inspection, further testing, making good or removal and obtain instructions. Wherever inspection or testing shows that the work is not in accordance with the Contract and measures (e.g. testing, opening up, experimental making good) are taken to establish the acceptability of the work, such measures:
  - 1. will be at the expense of the Contractor, and
  - 2. will not be considered as grounds for extension of time.

**1.6.10 Submission Of Daywork Vouchers:**

- a)
  - 1. Notify Contract Administrator's Representative of Commencement and completion of the work to be recorded on daywork vouchers to enable him to check and record as necessary.
  - 2. Workpeople engaged on daywork are not to be employed on other work during the daywork period without notifying the Contract Administrator's Representative.
  - 3. Vouchers need not be priced and but shall show time, naming persons involved, materials and plant used.
  - 4. Deliver voucher to Contract Administrator's Representative for verification not later than the end of the week following that in which the work has been executed and make copy available for his retention.

**1.6.11 VERIFICATION OF DAYWORKS VOUCHERS:**

- a)
  - 1. When the Contract Administrator's Representative witnesses the work he will countersign the voucher. When he does not witness the work but in his opinion it represents a reasonable record of the time, materials and plant used then he will countersign adding words 'fair assessment'.
  - 2. When the Contract Administrator's Representative is presented with a voucher which in his opinion is inaccurate, unreasonable, or is retrospective by more than one week following the week in which the work was done he will not countersign and the Contractor is to refer to the Contract Administrator.
  - 3. Submission of vouchers does not preclude the Contract Administrator from measuring and valuing the work. Where it is agreed that work can be valued on a dayworks basis they will be paid at the percentages in the Dayworks Section of the Specification.

**1.6.12 Quality Assurance:**

- a) Allow for a system of inspection and testing to ensure the works attain the quality specified.

**1.7 Security/Protection/Restrictions****1.7.1 Use Of Site:**

- a) Do not use the site for any purpose other than carrying out the works.

**1.7.2 Advertising:**

- a) Rights will be reserved to the Employer. Site boards will be required. Contractor to allow for timber frame and ply panel to allow 6No. 3' x 1' advertising boards in a location to be determined.

**1.7.3 Occupied Premises:**

- a) The building will remain in occupation for the duration of the project. TBC

**1.7.4 Adequately Protect:**

- a) All parts of the works including the adjoining property. Wherever work is of an especially vulnerable nature or is exposed to abnormal risks provide special protection to ensure that damage does not occur.

**1.7.5 Site Administration And Security:**

- a) Adequately safeguard the site, products, materials, plant, the works, and any existing buildings affected by the works from damage and theft.

**1.7.6 Stability:**

- a) Accept responsibility for the stability and structural integrity of the works during the contract, and support as necessary. Prevent overloading. Detail of design loads may be obtained from Contract Administrator.

**1.7.7 Explosives:**

- a) Do not use.

**1.7.8 Noise:**

- a) Fit all compressors, percussion tools and vehicles with effective silencers of a type recommended by manufacturers of the compressors, tools or vehicles. Do not exceed the maximum noise levels recommended in Advisory Leaflet 72 'Noise Control on Building Sites' published by the Department of the Environment.
- b) No radios will be permitted on site. This rule will be strongly enforced.



**1.7.9 Fire:**

- a) Take all necessary precautions to prevent personal injury, death, and damage from fire.

**1.7.10 Smoking:**

- a) Smoking will not be permitted on the site. This will be strongly enforced and any person found smoking on site will be asked to leave immediately.

**1.7.11 Nuisance:**

- a) Take all necessary precautions to prevent nuisance from smoke, dust, rubbish and other causes.

**1.7.12 Water:**

- a) Prevent damage from storm and surface water.

**1.7.13 Moisture:**

- a) Prevent the work from becoming wet or damp where this may cause damage. Dry out the works thoroughly. Control the drying out and humidity of the works and the application of heat to prevent:
  - 1. blistering and failure of adhesion.
  - 2. damage due to trapped moisture.
  - 3. excessive movement.

**1.7.14 Rubbish:**

- a) Remove rubbish and debris daily and keep the site and works clean and tidy. Burning on site of rubbish will not be permitted. Allow for all skips and the like throughout the Contract to be placed in a position agreed with the Contract Administrator.

**1.7.15 Existing Services:**

- a)
  - 1. Notify all service authorities of proposed works not less than one week before commencing site operations.
  - 2. Before starting work check positions of existing services.
  - 3. Observe local and/or service authority's recommendations for work adjacent to existing services.
  - 4. Adequately protect, uphold, maintain and prevent damage to all services. Do not interfere with their operation without consent of the service authorities or private owners, or the Contract Administrator as appropriate.
  - 5. If any damage to services results from the execution of the works, notify Contract Administrator and appropriate service authority. Make arrangements for the work to be made good without delay to the satisfaction of the service authority or private owner as appropriate.
  - 6. Replace any marker tapes or protective covers disturbed during site operations to the service authority's recommendations.
- b) Existing services are not thought to run in the location of the works but investigations must be carried out to determine if this is the case.

- c) The accuracy or sufficiency of this information is not guaranteed by the Employer or Contract Administrator and the Contractor must ascertain for themselves any information they may require to ensure the safety of all persons and the works.

1.7.16 Waterways:

- a) Take all necessary precautions to prevent pollution of streams, waterways and wells. This will be strictly enforced.

1.7.17 Roads and Footpaths:

- a) Ensure that no damage beyond fair wear and tear is caused by site traffic to roads and footpaths outside the site boundaries. Adequately maintain approaches to the site and keep clear of mud and debris.
- b) All roads and footpaths are to be made good on completion to match the condition at commencement.

1.7.18 Trees/Hedges/Shrubs/Lawns:

- a) Adequately protect and preserve, except those which are to be removed. Replace to approval or treat as instructed any species in areas damaged or removed without approval.

1.7.19 Existing Features:

- a) Prevent damage to existing buildings, fences, gates, trees, walls, roads, paved areas and other site features which are to remain in position during the execution of the works.

1.7.20 Existing Property:

- a) Site working areas to be kept to within agreed areas.

1.7.21 Existing Furniture and Fittings:

- a) To be retained for re-use unless otherwise noted.

1.7.22 Adjoining Properties:

- a) Ensure that the adjacent properties are not disturbed and that boundary fences etc. are not damaged.
- b) Prevent trespass of workpeople onto adjoining land.

1.7.23 Existing Structures:

- a) Provide and maintain during the execution of the works all shoring, strutting, needling and other supports as may be necessary to preserve the stability of the existing structures, on the site, that may be endangered or affected by the works.

1.7.24 Parking:

- a) Parking will be restricted to the car park. Any fencing disturbed should be replaced at completion of the contract to match existing.

- b) The public footpath should be maintained.

1.7.25 Deliveries:

- a) All deliveries should be made from Forest Road.
- b) Delivery vehicles shall cause the minimum of disruption reasonably possible, particularly to local residents, and shall be timed such that only one vehicle arrives at any one time.

1.7.26 Environmental Protection Act 1990:

- a) Comply with conditions of Section 34 for control of controlled waste on and off site including processing, transport, recycling, and final disposal. Require all subcontractors to meet these obligations.
- c) Comply with the Practical Guidance contained within the HMSO Publication 'Waste Duty of Care, A Code of Practice'.

**1.8 Facilities/Temporary Works/Services**

1.8.1 Locations:

- a) Inform and obtain the approval of the Contract Administrator of the intended siting of all spoil heaps, and services. Contractors should take particular note that space for storage of plant and/or materials on site may be restricted and on no account will materials, or plant be allowed to be deposited on roads, footpaths or verges unless agreed in writing from the Contract Administrator.

1.8.2 Maintain:

- a) Alter, adapt and move temporary works and services as necessary. Clear away when no longer required and make good.

1.8.3 Statutory Obligations:

- a) Allow for all statutory consents required.

1.8.4 Traffic Regulations:

- a) Allow for measures necessary to ensure compliance.

1.8.5 Safety, Health and Welfare:

- a) Allow for providing everything necessary for the safety, health and welfare of the Contractor's, Sub-Contractor's and directly employed work people in compliance with all enactments, regulations, working rules and legislative Acts and regulations and including:  
The Factories Act 1961.  
The Reporting of Injuries, Diseases and Dangerous Occurrence Regulations 2013  
Offices, Shops and Railways Act 1963.  
Control of Pollution 1974 & Amendments 1989.  
Construction (Health, Safety and Welfare) Regulations 2007.



Full compliance with advice given in HSE document 'HS(G)150 - Health and Safety in Construction'.

The Construction Regulations (General Provisions - 1961, Lifting Operations - 1998, Head Protection - 1989).

The Control of Substances Hazardous to Health Regulations 2002 (COSHH).

The Health and Safety at Work Act 1974 and all related regulations, and Codes of Practice issued by the Health and Safety Executive and Guidance Notes (HSE).

The CITB Construction Site Safety notes published by the Construction Industry Training Board, latest revised editions.

Control of Asbestos Regulations 2012.

The Control of Lead at Work Regulations 2002.

Construction (Design and Management) Regulations 2007 where applicable.

The Confined Spaces Regulations 1997.

1.8.6 Accommodation:

- a) The Contractor to supply their own mess facilities as required, to be located at a position agreed with the Contract Administrator. It is permitted to use parts of the building during the works but not to delay works or damage finishes.
- b) Facilities to comply fully with HSE information sheet (CIS 59 latest revision) 'Provision of Welfare facilities during construction work'.

1.8.7 Protection:

- a) Provide adequate fencing, boardings, screens, fans, planked footways, guard rails, gantries and the like as may be necessary for protecting the public and others, for the proper execution of the works and for meeting the requirements of any Local or other Authority.
- b) The site area should be secured by Heras fencing a minimum of 2.5m high and positioned along the proposed site boundary as indicated on the site plan.

1.8.8 Thermometer:

- a) Provide on site and maintain in accurate condition a minimum and maximum thermometer for measuring atmospheric shade temperature, in an approved position.

1.9 Specification: The Works Generally

1.9.1 Good Practice:

- a) Where and to the extent that materials, products and workmanship are not fully specified they are to be:
  - 1. suitable for the purposes of the works stated in or reasonably to be inferred from the contract documents, and
  - 2. in accordance with good building practice, including the relevant provisions of current BSI Documents.



## 1.9.2 Manufacturer's Recommendations:

- a)
  - 1. Handle, store, prepare and use or fix each product in accordance with manufacturer's printed or written recommendations and/or instructions. Inform Contract Administrator if these conflict with any other specified requirement.
  - 2. The recommendations and/or requirements are those which are current ten working days before the date of tender. If they change between tender and construction inform the Contract Administrator and obtain instructions before ordering materials or starting work.
  - 3. Submit copies to Contract Administrator when requested.

## 1.9.3 British Standards:

- a) For products and materials specified to a British Standard obtain certificates of compliance from manufacturers when requested by Contract Administrator.

## 1.9.4 Supervision:

- a) In addition to the constant management and supervision of the works provided by the Contractor's person in charge, all significant types of work must be under the close control of competent tradesmen to ensure maintenance of satisfactory quality and progress.

## 1.9.5 Products to be New:

- a) Unless otherwise specified. Ensure that the whole quantity of each product and material required to complete the work is of consistent kind, size and quality and overall appearance. Handle, store and fix products with care to ensure that they are not damaged when incorporated into the work.

## 1.9.6 Single Source:

- a) Where a choice of manufacturer or source of supply is allowed for any particular product or material, the whole quantity required to complete the work must be of the same type, manufacture and/or source. Do not change without approval. Produce written evidence of sources of supply when requested by Contract Administrator.

## 1.9.7 Asbestos-Based Products/Materials:

- a) Do not use products/materials containing asbestos.
- b) No asbestos survey has been carried out within the building.

## 1.9.8 Appearance and Fit:

- a)
  - 1. Arrange the setting out, erection, juxtaposition of components and application of finishes (working within the practical limits of the design and the specification) to ensure that there is satisfactory fit at junctions and that the finished work has a well aligned, true and regular appearance.
  - 2. Wherever satisfactory accuracy, fit and/or appearance of the work are likely to be critical or difficult to achieve obtain approval of proposals or of the appearance of the relevant aspects of the partially finished work as early as possible.

**1.9.9 Check All Drawings, Dimensions and Levels:**

- a) Check all dimensions and levels both on drawings and site, particularly the correlation between components and the work in place. Check drawings as they are re-issued to ensure that they do not conflict with each other or actual measurements taken at the works. Do not order materials and components or carry out the work until any discrepancies have been resolved with the Contract Administrator.

**1.9.10 Setting Out:**

- a) Seek approval of Contract administrator for overall setting out.

**1.9.11 Provision Of Shop Drawings:**

- a) Not used.

**1.9.12 Services Regulations:**

- a) Any work carried out to or which affects new or existing services must be in accordance with the Bye Laws or Regulations of the relevant Statutory Authority and entirely to their inspector's satisfaction.

**1.9.13 Service Runs:**

- a) Not used.

**1.9.14 Small Plant And Tools:**

- a) Allow for providing all small plant and tools necessary to carry out the Works.

**1.9.15 Mechanical Plant:**

- a) Allow for providing mechanical plant of every description including that required for hoisting, general activities and all forms of transport including transport of personnel.

**1.9.16 Ownership:**

- a) Materials arising out of the works are to become the property of the Contractor except where otherwise stated. Remove from site as work proceeds.

**1.10 Work at Completion/Making Good Defects****1.10.1 Make Good:**

- a) All damage consequent upon completion of the work.

**1.10.2 Remove:**

- a) All temporary markings, coverings and protective wrappings unless otherwise instructed.

**1.10.3 Clean:**

- a) The works thoroughly inside and out, remove all splashed, deposits, efflorescence, rubbish and surplus materials consequent upon the execution of the work.

COLLECTION

Page No. 1/6

Page No. 1/7

Page No. 1/8

Page No. 1/9

Page No. 1/10

Page No. 1/11

Page No. 1/12

Page No. 1/13

Page No. 1/14

Page No. 1/15

Page No. 1/16

Page No. 1/17

Page No. 1/18

Page No. 1/19

Page No. 1/20

Page No. 1/21

Page No. 1/22

Page No. 1/23

Page No. 1/24

Page No. 1/25

**GENERAL CONDITIONS AND PRELIMINARIES  
CARRIED TO MAIN SUMMARY**



**2.0 PROVISIONAL SUMS AND DAYWORKS****2.1 PROVISIONAL SUMS****2.1.1 CONTINGENCY:**

- a) General Contingency **£10,000.00**

**2.2 SCHEDULE OF PROVISIONAL DAYWORKS:****2.2.1 GENERAL:**

- a) The Employer should pay to the Contractor in the manner provided by the Agreement, the prime cost of works ascertained in accordance with the "Definition of Prime Cost of Daywork Carried Out Under a Building Contract, Third Edition, 1 September 2007" published by Royal Institution of Chartered Surveyors.
- b) The Contract to indicate and shall be paid the all in rates in preference to ascertained prime cost plus an added percentage for overhead and profit. The rates are to include for all overheads, profit, transport, normal plant and materials, and insurances.
- c) The undermentioned number of hours are provided for such works as the Contract Administrator may order to be executed by daywork and are to be omitted in part or in whole if not required.

Plasterer	35hrs x £.....per hour*	_____*
Labourer	35hrs x £.....per hour*	_____*
Carpenter	35hrs x £.....per hour*	_____*

\*to be inserted by tenderer.

**2.2.2 MATERIALS, PLANT AND SUB-CONTRACTORS**

- a) include this sum for material and goods as defined in Section 4 of the above 'Definition', apart from cash discount allowable under item 4.1 shall not exceed 2½%.

**400 00**

- b) Add percentage for incident costs, overheads and profit in Section 6 of the above 'Definition'.

Materials and goods .....\*% \_\_\_\_\_\*

- c) Add/deduct percentage for incidental costs, overhead and profit as defined in Section 6 of the above 'Definition'.

**400 00**

Plant.....\*% \_\_\_\_\_\*

\*to be inserted by tenderer.



COLLECTION

Page No. 2/1

**PROVISIONAL SUMS AND DAYWORKS  
CARRIED TO MAIN SUMMARY**

**3.0 SPECIFICATION****B10 SCAFFOLDING**

- 110 GENERALLY: Where the Contractor is required by the specification to provide details of subcontractors and suppliers these must be supplied with the tender. Where method statements, drawings, calculations, samples or approvals are required, a minimum of one week should be allowed. These periods should be indicated on the Contractor's programme.

**Materials**

- 120 METAL SCAFFOLDING: To BS EN 39:2001; BS EN 74-1:2005; BS EN 1004:2004; BS 1139-4 1982; BS EN 12810-1:2003. All scaffolding and couplings to be hot dip galvanised to BS EN ISO 1461:2009.
- 130 TIMBER SCAFFOLD BOARDS: To BS 2482:2009, 38 x225 softwood with metal end caps. Supply stable boards of moisture content to suit situation. Discard twisted or damaged boards.
- 140 LADDERS: To BS 1129:1990 and BS 2037:1994. All ladders to be in good repair. Replace any timber ladders that warp or break.
- 150 SHEETING: Monarflex Flamesafe sheeting with neoprene rubber anchors and straps all as made by Monarflex.
- 160 NETTING: Nylon woven green debris netting, with neoprene rubber anchor straps.
- 180 PLYWOOD SHEETING: Exterior quality WBP 19mm thick to BS 636:2012.
- 190 ANCHOR SOCKETS: Will not be permitted.
- 200 WARNING TAPES AND STRIPS: Fluorescent and/or stripped plastic tape and self-adhesive strip.
- 210 KENTLEDGE: Where required the scaffold will be held down with kentledge. The Contractor should provide details of proposed kentledge for approval. The following will not be acceptable: scaffold tubes, water containers.

**Design**

- 310 SCAFFOLD DRAWINGS BY CONTRACTOR: Where the Contractor is required to prepare proposals, submit full details in duplicate to the CA based on the parameters set out in this specification. The proposals are to be of an extent and detail commensurate with the complexity of the Contract and with the degree to which they are critical. Indicate loads from the scaffolding onto the existing structure and demonstrate that the existing building is capable of resisting such loads, undertaking opening up works as required. Indicate levels of working platforms in relation to the existing building. Submit drawings of any proposals to vary those approved where required.

Indicate with tender the name of the scaffolding designer, who is required to inspect on completion and verify to the CA that the scaffolding has been erected in accordance with his proposals.

Details of the design proposal drawings, loadings to the surrounding ground or building including kentledge and design calculations should be submitted prior to erection and for approval by the Architect.

- 320 CERTIFICATION: Allow for independent Consulting Engineer to fully check both calculations and drawings and provide written confirmation of approval of design and calculations. Independent Engineer to confirm scaffold has been erected to agreed designs on completion of erection. The Engineer will be required to demonstrate Professional Indemnity Insurance to a level of £1,000,000 each and every claim. Renewal certificates should be forwarded to the Architect for the duration of the Contract. Liability of checking engineer will pass to the Client for the works.
- 330 CONTRACTOR DESIGN:
- The Main Contractor is responsible for ascertaining the requirements of all subcontractors including the use of each platform, the number to be fully boarded, those to be sheeted, location and purpose of hoists, fans, hoardings, loading bays and the length of time the structure will be in position, together with other relevant information, unless stipulated within the Contract Documents.
  - The Main Contractor should be responsible for obtaining a documented design with calculations for the erection, use and dismantling of scaffold structures and for the integration of these activities within the overall work programme. It is the duty of the main contractor to check the design. The Main Contractors must submit details of the following, when requested to do so:
    - Design
    - full set of drawings
    - calculations
    - number and location of working levels
    - loading bays
    - manufacturer's details for specialist equipment such as ladder beams and cluster props etc.
    - risk assessments
    - method statements covering erection, use and dismantling.
- 340 SCAFFOLDING CONTRACTOR:
- The scaffolding contractor should be members of the National Association of Scaffolding Contractors (NASC).
  - Contractors and sub-contractor's will have to demonstrate:
    - A sound Health and Safety Policy
    - Adequate Employers and Public Liability Insurance
    - Scaffolding operatives should be registered under the Construction Industry Training Board (CITB)
    - Scaffolders' Record Scheme to identify the level of competence
    - All operatives are fully trained, registered and competent in activities undertaken
    - All work is adequately supervised by competent trained Supervisors.
    - Materials conform to the specified standards and are regularly checked and maintained
    - Work is carried out in accordance with relevant codes of practice
- 350 ACCESS AND WORKING SCAFFOLDING: Access and working scaffolding should be designed, constructed and used in accordance with BS EN12811 – 1 : 2003 Temporary works equipment. Scaffolds. Performance requirements and general design and all statutory regulations. Scaffold structures will normally fall into one of two categories:
- Standard scaffolds.
  - Special scaffolds.



## 360 STANDARD SCAFFOLDS

- This category includes putlog and independent tied scaffolds. Putlog scaffolds will not be permitted.
- Un-sheeted independent scaffolds, where no loading rating is specified, may be constructed up to a height of 50m without calculations providing they are constructed in accordance with BS EN 12811 – 1 : 2003 and that they do not carry greater loads nor have greater bay lengths than those given in the table below.

Table 1. Access and working scaffolds of tube and couplers					
Duty	Use of Platform	Load on Platform kN/m <sup>2</sup>	Max No of Platforms	Commonly used widths using 225mm boards	Max Bay Length (m)
Inspection and very light duty	Inspection, painting, stone cleaning, light cleaning and access	0.75	1 working platform	3 boards	2.7
Light Duty	Plastering, painting, stone cleaning, glazing and pointing.	1.50	2 working platforms	4 boards	2.4
General Purpose	General building work including brickwork, window and mullion fixing, rendering, plastering.	2.00	2 working platforms + 1 at very light duty	5 boards or 4 boards + 1 inside	2.1
Heavy Duty	Blockwork, brickwork, and heavy cladding.	2.50	2 working platforms + 1 at very light duty	5 boards or 5 boards + 1 inside or 4 boards + 1 inside	2.0
Masonry or Special duty	Masonry work, concrete blockwork, and very heavy cladding	3.00	1 working platform + 1 at very light duty	6 to 8 boards	1.8

## 370 SPECIAL SCAFFOLDS

- These will include all access and working scaffolds other than those identified under standard scaffold limitations. All special scaffolds should be designed by a competent person.
- These will generally cover:
  - Cantilever scaffolds
  - Protection fans
  - Cantilever loadings bays
  - Truss out scaffolds
  - Freestanding towers
  - Power line crossings
  - Guys and struts
  - Access birdcages
  - Hoist towers
  - Ladder towers
  - Stair towers
  - Slung scaffolds
  - Pedestrian bridges and walkways
  - Temporary ramps and elevated roadways
  - Masts
  - Lighting towers
  - Transmission towers
  - Lifting gantries
  - Temporary buildings
  - Temporary roofs



- Spectator terraces and seating stands
- Temporary storage on site
- Sheeted scaffolds including open mesh sheeting
- Scaffolds deriving lateral support from buttressing
- Scaffolds including a standard bearing on a bridging beam or bracing

- 380 WIND LOADING: To be in accordance with BS EN 1991-1-4:2005 + Amendment 1:2010 Eurocode 1. It is anticipated that the scaffold shall be in position for no longer than twelve months and probably less.
- 390 PLATFORM LOADS: Shall be appropriate to the designation of the scaffold but not less than  $2.5\text{kN/m}^2$ . Any 2 levels may be fully loaded at any one time. The scaffolding contractor should allow for the worst condition. Co-ordinate with sub-contractors at design and tender stages the loadings required for working platforms and storage of materials on the scaffold.
- 400 ROOF LOADS: to be in accordance with BS EN 1991-1-3:2003.
- 420 LOADING ON EXISTING STRUCTURES: The scaffolding may not take bearing from nor gain restraint from the building at any position. i.e. the scaffold is to be a completely independent structure (except where stated otherwise in this specification).  
Butt ties will be permitted subject to details of how the fabric will be protected (i.e., foam cushions) and providing they do not hinder the main contract works.
- It is anticipated that there will be some 20mm lateral movement of the scaffold. The contractor is to make his own assessment of this movement and maintain sufficient clearance between the scaffold structure and the spire to accommodate the expected movement.
- 430 SUPPORT STRUCTURE OF SCAFFOLD: The support structure of the scaffold should be concentrated as necessary to leave the area adjacent to the building as free as possible for use by the contractors.
- 460 PLATFORMS: Standards to be designed and erected to allow a minimum of two clear scaffold boards width between them and the building elevation or elevational details such as window heads, cornices etc.
- The access scaffold is to be completely boarded out at each lift level. Around the exterior envelope hand rails and toe boards will be required. Ensure that boards are fully supported and lie flush, to prevent traps, particularly at ladder holes. Allow boards immediately adjacent to walls to lift out.
- 470 LADDERS: Provide ladder access for full height of scaffold and not so located to interfere with access to the face of the building. Position to be agreed with the CA. Ladders to extend a maximum of one scaffold lift at one time.
- 480 LIGHTNING PROTECTION: Bond scaffold to suitable lightning conductor terminal(s) driven into the ground or in pits in positions agreed with the Architect to comply with the requirements of BS 6651. Test connection(s) and continuity through scaffold on completion of the contract. Provide details of lightning protection proposed with the tender and to the approval of the Architect.
- 490 CLEARANCES: Clear access is to be provided to all doorways at all times unless otherwise agreed with the CA in writing. The lifts immediately above all openings are to have plywood sheeting and polythene sheeting placed below the scaffold boards to prevent any debris falling.
- 500 FIXINGS/TIES: Scaffold to be fully independent with no physical fixings into the fabric. Butts will be permitted subject to details of how the fabric will be protected (i.e., foam cushions).

## 510 CONTROL OF WORK ON SITE:

- Notwithstanding the overall responsibilities of the Main Contractor for site activities and health and safety, adequate supervision must be provided by the Scaffolding Contractor at all times during erection and dismantling of scaffolding and temporary structures.
- Designers of special scaffolds should, under the terms of contract, be required to attend site on the first day of erection to liaise, and brief the Scaffolding Supervisor on the requirements of the design.
- Designers should be required to emphasise that any variations to the design will not be permitted, without the designer's written authority. Any agreed variations must be clearly documented and must go through the Main Contractor and Planning Supervisor to be checked by a competent person.
- Designers should also be required to visit the site at least weekly during erection. On completion the Designer should certify (on F91 part 1 section A) to the Main Contractors that the scaffold has been erected full in accordance with the design and any approved variations. Copies of the certification should be passed to the Planning Supervisor.
- All scaffolds and structures should be inspected at least every seven days (and after weather conditions likely to have affected their strength or stability) by a competent person.
- Records of such inspections together with necessary action must be made in register F91 and signed by the person making the inspection.
- No alterations must be made at any time without written authority from the Designer and the Main Contractor.
- At all times during erection, dismantling or alteration to scaffold structures, access to the working areas needs to be clearly defined by suitable barriers and notices. Notices wording "incomplete scaffold" should be secured as necessary in an appropriate place.
- It is a wise precaution to stop all work on external scaffolding during a thunderstorm.

## 520 PROTECTION:

- Tubes bearing on masonry should be provided with suitable timber bearers and/or foam packers. Against leadwork, felt or other suitable packing should be used between the timber and leadwork.
- All scaffold tube ends which are near or likely to come into contact with the fabric of the building during erection, dismantling or as a consequence of lateral movement should be provided with plastic end caps.
- All scaffolding and temporary structures must be adequately earthed against lightning strikes, or bonded into the existing installation and is to be carried out by an approved lightning conductors specialist.

## 530 PUBLIC ACCESS:

- During erection, modification or dismantling, care must be taken to exclude the public and staff from a clearly defined area around the work.
- Authorised access thoroughfares must have effective protection in the form of fans, netting, sheeting, brickguards, etc., to protect persons from falling objects.
- Ladders must not be left unattended when accessible to the public.
- Ladders at ground floor level and other risk areas should be removed and securely locked away at the end of each working day.



- 540     **MOBILE SCAFFOLD TOWERS:**
- Mobile scaffold towers should be designed and used in accordance with HSE Publication CIS10.
  - If a static tower is to be free standing (that is not tied to a building), the maximum height to base ratio, is 4:1 for use inside a building and 3:5:1 for use outside buildings.
  - If a mobile tower is to be free standing, the maximum height to base ratio, is 3:5:1 for use inside a building and 3:0:1 for use outside the building.
  - The minimum base dimensions can be increased, and stability improved, by the use of outriggers or stabilisers.
  - The recommended maximum height for a free standing tower is 9.6m when mobile and 12m when static.
- 550     **PROVIDE, MAINTAIN AND ADAPT:** All platforms, ladders, hoists, scaffolding, sheeting, hoarding, temporary roofs and protection as necessary for the proper execution of the works including that required for sub-contractors. Inspect regularly in accordance with the regulations and maintain records of these inspections on site. Co-ordinate the design and erection of scaffolding with general and sub-contractors programme and working requirements.
- 560     **TAKE CARE:** To prevent damage to the existing buildings, its fittings and furniture. Any damage caused to the building is to be made good to the approval of the CA at the Contractor's expense. Listed Buildings are of national historical and architectural importance and the historic fabric is vulnerable to damage and much of it irreplaceable. All personnel should be made aware of this and treat the building with great care. When erecting high level scaffolding internally, valuable fittings below the working area (e.g. monuments, decorative plaster features) must be temporarily protected from damage and dirt during the erection and striking of scaffold, and this must be included in any proposal.
- 570     **PERMISSIBLE BEARING PRESSURE:** Ensure that the permissible bearing pressure of the ground or of the building below the structure is not exceeded. Set standards on scaffold boards to spread the load, taking care not to block or block access to drains, rainwater channels, outlets etc. Where founded on soil, set out on appropriate spreaders as sole plates. Provide protection to any underlying stone, leadwork, asphalt etc. with 50mm polystyrene and 19mm plywood as base for scaffold supports.
- 580     **SCAFFOLD TUBE ENDS:** All to be covered with plastic caps where within 50mm of the building. All ends to be kept a minimum of 100mm back from any glazing. Where butting is permitted provide detail of padding to butt to avoid damage to fabric. Assume minimum of 50mm polystyrene and 19mm plywood. Wrap any vulnerable carvings or fittings with bubble wrap and cover glass or decorations in rigid sheeting where adjacent to scaffolding.
- 590     **FIRE ESCAPE:** Do not obstruct means of escape routes from the site or adjoining buildings unless alternative routes are provided, signed and agreed in writing with the CA.
- 600     **UNAUTHORISED ACCESS:** Take all reasonable precautions to ensure that unauthorised persons cannot gain access to scaffolds. Remove and lock up all ladders from the bottom lift of scaffolding and secure all gates each night.



**C41 REPAIRING/ RENOVATING/ CONSERVING MASONRY**

To be read with Preliminaries/ General conditions

**GENERALLY/ PREPARATION****110 SCOPE OF WORK**

- Schedule: Various crack repairs and making good of finishes damaged by ground movement & Repairs to basement walls.
- Records of masonry to be repaired: Before starting work, use measurements and photographs as appropriate to record bonding patterns, joint widths, special features, etc.
- Identification of masonry units to be removed, replaced or repaired: Mark clearly, but not indelibly, on face of masonry units or parts of units to be cut out and replaced. Transcribe markings to drawings/ photographs.

**120 SITE INSPECTION**

- Purpose: To confirm type and extent of repair/ renovation/ conservation work shown on drawings and described in survey reports and schedules of work.
- Parties involved: Contract administrator and Contractor's representative.
- Timing: At least 5 working days before starting each section of work.
- Instructions issued during inspection: Confirm in writing, with drawings and schedules as required, before commencing work.

**130 REMOVAL OF PLANT GROWTHS FROM MASONRY**

- Plants, root systems and associated soil/ debris: Carefully remove from joints, voids and facework.
- Removal of roots: Where growths cannot be removed completely without disturbing masonry seek instructions.
- Unwanted plants close to masonry: Where removal of root system is not possible or desirable, cut through stem as close to the ground as possible. Remove bark from stump and apply herbicide paste. Leave stump to wither.

**WORKMANSHIP GENERALLY****150 POWER TOOLS**

- Usage for removal of mortar: Permitted only with prior approval.

**155 PUTLOG SCAFFOLDING**

- Usage: Not permitted.

**160 PROTECTION OF MASONRY UNITS AND MASONRY**

- Masonry units: Prevent overstressing during transit, storage, handling and fixing. Store on level bearers clear of the ground, separated with resilient spacers. Protect from adverse weather and keep dry. Prevent soiling, chipping and contamination. Lift units at designed lifting points, where provided.
- Masonry: Prevent damage, particularly to arrises, projecting features and delicate, friable surfaces. Prevent mortar/ grout splashes and other staining and marking on facework. Protect using suitable nonstaining slats, boards, tarpaulins, etc. Remove protection on completion of the work.

**165 STRUCTURAL STABILITY**

- General: Maintain stability of masonry. Report defects, including signs of movement that are exposed or become apparent during the removal of masonry units.

**170 DISTURBANCE TO RETAINED MASONRY**

- Retained masonry in the vicinity of repair works: Disturb as little as possible.
- Existing retained masonry: Do not cut or adjust to accommodate new or reused units.
- Retained loose masonry units and those vulnerable to movement during repair works: Prop or wedge so as to be firmly and correctly positioned.

**180 WORKMANSHIP**

- Skill and experience of site operatives: Appropriate for types of work on which they are employed.
- Documentary evidence: Submit on request.

**185 ADVERSE WEATHER**

- General: Do not use frozen materials or lay masonry units on frozen surfaces.
- Air temperature: Do not bed masonry units or repoint:
  - In cement gauged mortars when ambient air temperature is at or below 3°C and falling or unless it is at least 1°C and rising, unless mortar has a minimum temperature of 4°C when laid and the masonry is adequately protected.
  - In hydraulic lime:sand mortars when ambient air temperature is at or below 5°C and falling or unless it is at least 3°C and rising.
  - In nonhydraulic lime:sand mortars in cold weather, unless approval is given.
- Temperature of the work: Maintain above freezing until mortar has fully set.
- Rain, snow and dew: Protect masonry by covering during precipitation, and at all times when work is not proceeding.
- Hot conditions and drying winds: Prevent masonry from drying out rapidly.
- New mortar damaged by frost: Rake out and replace.

**190 CONTROL SAMPLES**

- General: Complete an area of each of the following types of work, and arrange for inspection before proceeding with the remainder: Brick replacement and repointing.

**MATERIALS/ PRODUCTION/ ACCESSORIES****215 MATERIAL SAMPLES**

- Representative samples of designated materials: Submit before placing orders.
- Designated materials: Sands for bedding and pointing.
- Retention of samples: Unless instructed otherwise, retain samples on site for reference. Protect from damage and contamination.

**220 RECORDING PROFILES**

- Profiles: Take measurements from existing masonry units, as instructed, to allow accurate matching of replacements.
- Recording in situ: If there are no suitable joints to allow use of inserts, seek instructions.
- Drawings and templates: Prepare as necessary. Templates must be clearly and indelibly marked to identify use and location.

**260 BRICKS**

- Manufacturer: Submit proposals.
- Product reference: Submit proposals.
- Size: To match existing.
- Special shapes: To match existing.
- Recycled content: Submit proposals.



265 SALVAGED AND SECOND HAND BRICKS

- Source: Submit proposals.
- Condition:
  - Free from matter such as mortar, plaster, paint, bituminous materials and organic growths.
  - Sound, clean and reasonably free from cracks and chipped arrises.

285 BED JOINT REINFORCEMENT TO MASONRY For Repair Type 1 Crack Stitching

- Manufacturer: Helifix or equivalent approved.
- Product reference: HeliBar.
- Material: Austenitic stainless steel.
- Width: Approximately 40-50 mm less in width than wall or leaf.
- Laying: On an even bed of mortar in a continuous strip with
  - 225 mm laps at joints and full laps at angles. Keep back
  - 20 mm from face of external work, 12 mm back from face of internal work and finish mortar joint to normal thickness.

**DISMANTLING/ REBUILDING**

310 DISMANTLING MASONRY FOR REUSE

- Masonry units to be reused: Remove carefully and in one piece.
- Treatment: Clean off old mortar, organic growths and dirt, and leave units in a suitable condition for rebuilding.
- Identification: Mark each unit clearly and indelibly on a concealed face, indicating its original position in the construction. Transcribe markings to drawings/ photographs.

320 REBUILDING Sections of basement walls

- Replacement materials: Bricks as clause 260.
- Mortar: As section Z21.
- Mix: Hydraulic lime to match existing in texture and appearance.
- Sand source/ type: Contractor's choice to approval.
- Fixings: not required.
- Rebuilding: To match previous face and joint lines, joint widths and bonding. Adequately bonded to retained work/ backing masonry, as appropriate.
- Joint surfaces: Dampen, as necessary, to control suction.
- Laying masonry units: On a full bed of mortar; perpend joints filled.
- Exposed faces: Remove mortar and grout splashes immediately.
- Joints: to match existing.
- Other requirements: none.

**REPLACEMENTS AND INSERTIONS**

330 PREPARATION FOR REPLACEMENT MASONRY

- Defective material: Carefully remove to the extent agreed. Do not disturb, damage or mark adjacent retained masonry.
- Existing metal fixings, frame members, etc: Report when exposed.
- Redundant metal fixings: Remove.
- Recesses: Remove projections and loose material; leave joint surfaces in a suitable condition to receive replacement units. Protect from adverse weather if units are not to be placed immediately.



- 365 REPLACEMENT OF BRICKS to main walls that are cracked
- Bricks: second hand clay as clause 260.
  - Mortar: As section Z21.
  - Mix: hydraulic based lime to match existing in texture and appearance.
  - Sand source/ type: Contractor's choice to approval.
  - Fixings: not required.
  - Joints: to match existing.
  - Other requirements: none.
- 370 REPLACEMENT OF BRICKS to basement walls
- Bricks: clay as clause 260.
  - Mortar: As section Z21.
  - Mix: hydraulic based lime to match existing in texture and appearance.
  - Sand source/ type: Contractor's choice to approval.
  - Fixings: not required.
  - Joints: to match existing.
  - Other requirements: none.
- 385 LAYING REPLACEMENT MASONRY UNITS
- Exposed faces of new material: Keep to agreed face lines.
  - Faces, angles and features: Align accurately. Set out carefully to ensure satisfactory junctions with existing masonry and maintain existing joint widths.
  - Joint surfaces: Dampen to control suction as necessary.
  - Laying units: On a full bed of mortar, all joints filled.
  - Exposed faces: Keep clear of mortar and grout.
- 390 GROUTING JOINTS
- Grout mix: Non hydraulic lime with pozzolanic admixture; mix subject to site trials.
  - Joints that cannot be fully filled with bedding mortar: Grout thoroughly around replacement masonry units.
  - Grouting: Keep grout back from exposed face to allow for the depth of pointing, using an approved temporary sealing material. Prevent grout staining exposed face.

#### CRACK REPAIRS/ TIES/ REINFORCEMENT

- 610 MORTAR REPAIR OF CRACKS As directed on site
- Mortar: As section Z21.
  - Mix: hydraulic based lime to match existing in texture and appearance.
  - Sand source/ type: Contractor's choice to approval.
  - Preparation: Clean out cracks to remove debris, dust and dirt. Dampen recesses, as necessary, to control suction.
  - Applying mortar: Press well into cracks so that they are fully filled. Ensure that mortar does not encroach upon exposed faces. Finish mortar flush with masonry face.
  - Other requirements: None.

- 650 LATERAL RESTRAINT TIES To front elevation zone A
- Existing construction:
  - Wall type/ thickness: To be confirmed on site.
  - Joist size/ spacing: To be confirmed on site.
  - Preparation:
  - Before inserting each tie, ensure that there are no service pipes, electrical cables or other obstruction in its path.
  - Remove dust and debris from holes through masonry.
  - Tie system manufacturer: Helifix or equivalent approved.
  - Product reference: Bow Tie.
  - Tie spacing:
  - Joists parallel to wall: Maximum As indicated in outline schedule of works centres, through the sides of 2 No. joists.
  - Joists at right angles to wall: As indicated in outline schedule of works.
  - Tie Installation: Insert ties accurately and securely, and as near as practicable to mid depth of joists.
  - Making good: as agreed with CA.
- 690 MAKING GOOD TO INJECTION AND INSERTION HOLES
- Preparation: Clean out holes thoroughly.
  - Repair mortar: To match existing masonry units/ joints in colour and texture. Fill holes and finish mortar neatly and flush with surrounding masonry.
  - Finished appearance: Obtain approval for first few holes before completing the remainder.

#### POINTING/ REPOINTING

- 810 PREPARATION FOR REPOINTING
- Existing mortar: Working from top of wall downwards, remove mortar carefully, without damaging adjacent masonry or widening joints, to a minimum depth of 50 mm.
  - Loose or friable mortar: Seek instructions when mortar beyond specified recess depth is loose or friable and/ or if cavities are found.
  - Raked joints: Remove dust and debris.
- 820 POINTING To crack stitch repair type 1
- Preparation of joints: As clause 810.
  - Mortar: As section Z21.
  - Mix: hydraulic based lime to match existing in texture and appearance..
  - Sand source/ type: Contractor's choice to approval.
  - Joints profile/ finish: To match existing.
  - Other requirements: None.
- 840 POINTING WITH TOOLS/ IRONS
- General: Press mortar well into joints using pointing tools/ irons that fit into the joints, so that they are fully filled.
  - Face of masonry: Keep clear of mortar. Use suitable temporary adhesive tape on each side of joints where necessary. Finish joints neatly.
- 860 BRUSHED FINISH TO JOINTS
- Timing: After initial mortar set has taken place remove laitance and excess fines by brushing, to give a coarse texture. Do not compact mortar.

**C45 Damp proof course renewal/ insertion****4 SURVEY AND REPORT**

- Survey generally:
  - Purpose: To confirm presence and extent of rising damp and suitability of walls for treatment by the proposed dpc system.
  - Timing: Before starting dpc installation work carry out survey and submit survey report.
- Survey report content:
  - Extent of rising damp: Determine using methods recommended in the Property Care Association (PCA) 'Code of practice for the installation of remedial damp proof courses in masonry walls', clause 6.
  - Proposals: Submit levels and positions of horizontal and vertical dpcs
  - Associated work: Nature and extent of work required to ensure an effective dpc.
  - Limitations: Identify areas where a full survey could not be carried out.
- Other information: Any considered relevant.

**12 ASSOCIATED WORK**

- Work shown to be necessary by the survey: Employer's responsibility. Obtain instructions or otherwise ensure that the work has been completed satisfactorily before installing dpc.

**15 BEFORE DPC INSTALLATION**

- Internal finishes: Remove only sufficient to expose the proposed line of dpc.
- Fungal or beetle attack to timber sections: Report occurrences.

**24 REPOINTING OF WALLS**

- Location: On line of proposed dpc.
- Timing: Before installation of dpc.
- Mortar: As section Z21.
- Mix: To match existing.

**35 CHEMICAL INJECTION DPC SYSTEM**

- System: Agrément certified.
- Product type: To be agreed.
- Installation: To BS 6576 by a firm approved by the dpc system manufacturer.

**40 MAKING GOOD TO EXPOSED INJECTION HOLES**

- Mortar mix: As recommended by the dpc manufacturer to match existing masonry in colour and texture.
- Installation: Fully fill holes. Finish neatly and flush.
- Approval of appearance: Obtain or first few holes before completing the remainder.

**50 GUARANTEE**

- Type: Insured protection. Administered by an independent insurance protection company.
- Guarantee period from completion of installation (minimum): 20 years.
- Documentation: Provide certificates/ guarantees at completion of installation.



**C51 Repairing/ Renovating/ Conserving timber**

To be read with Preliminaries/ General conditions

**GENERAL****110 INSPECTION**

- Purpose: To confirm nature and extent of repair/ renovation/ conservation work shown on drawings and described in survey reports and schedules of work.
- Parties involved: Contract administrator and Foreman carpenter.
- Timing: At least 5 days before starting each section of work.
- Instructions issued during inspection: To be confirmed by CA.

**130 OPENING UP**

- Purpose: To reveal previously concealed areas of structure or fabric not recorded during initial surveys.
- Extent: To be agreed.
- Timing: Give notice before starting opening up.
- Period of notice: At least two working days.
- Retained building structure/ fabric: Do not damage or destabilize.

**150 TIMBER PROCUREMENT**

- Timber (including timber for wood based products): Obtained from well managed forests and/ or plantations in accordance with:
  - The laws governing forest management in the producer country or countries.
  - International agreements such as the Convention on International Trade in Endangered Species of wild fauna and flora (CITES).
- Documentation: Provide either:
  - Documentary evidence (which has been or can be independently verified) regarding the provenance of all timber supplied.
  - Evidence that suppliers have adopted and are implementing a formal environmental purchasing policy for timber and wood based products.

**STRUCTURAL REPAIRS/ ALTERATIONS****240 END REPAIRS - LAP**

- Defective timber: Cut out.
- Lap member: Timber.
- Size: To match existing.
- Fixing to existing timber: As described in outline schedule of works.

**250 TIMBER SECTION REPAIRS - EXTERNAL SPLICE**

- Defective timber: Cut out to clean, regular profile.
- Replacement timber: To match existing.
- Splice plates:
  - Material: Timber.
  - Size: To be agreed on site.
- Fixing to existing timber: To be agreed on site.

**PRODUCTS**

- 310 STRUCTURAL SOFTWOOD (GRADED DIRECT TO STRENGTH CLASS) Where existing softwood is to be repaired
- Grading standard: To BS 4978, BS EN 14081-1 or other national equivalent and so marked.
  - Strength class to BS EN 338: C24.
  - Treatment: Obtain instructions.
  - Moisture content (maximum) at time of installation: 20%.
  - Other requirements: Wane not permitted.
- 330 STRUCTURAL HARDWOOD (GRADED DIRECT TO STRENGTH CLASS) Where existing hardwood is to be repaired
- Grading standard: To BS 5756 and so marked.
  - Strength class to BS EN 338: D30.
  - Surface finish: Regularized.
  - Treatment: Obtain instructions.
  - Moisture content (maximum) at time of installation: 20%.
  - Other requirements: Wane not permitted.
- 430 PROPRIETARY FRAMING ANCHORS AND CLEATS
- Manufacturer: Expamet or equivalent approved.
  - Product reference: To be agreed.
  - Material/ finish: galvanised steel.
  - Fasteners: Galvanized or sherardized nails, size as recommended by product manufacturer..

**EXECUTION**

- 600 WORKMANSHIP
- Skill and experience of site operatives: Appropriate for types of work on which they are employed.
  - Documentary evidence: Submit on request.
- 610 TEMPORARY SUPPORTS/ PROPPING
- General: Provide adequate temporary support at each stage of repair work to prevent damage, overstressing or uncontrolled collapse of any part of the structure.
  - Bearings for temporary supports/ propping: Suitable to carry loads throughout repair operations.
- 620 PROTECTION OF TIMBER AND WOOD COMPONENTS BEFORE AND DURING INSTALLATION
- Storage: Keep dry, under cover, clear of the ground and with good ventilation. Support sections/ components on regularly spaced, level bearers on a dry, firm base.
  - Handling: Do not overstress, distort or disfigure sections or components during transit, storage, lifting, erection or fixing.
- 650 DIMENSIONS GENERALLY
- Site dimensions: Take as necessary before starting fabrication.
  - Discrepancies with drawings: Report without delay and obtain instructions before proceeding.



- 660 CROSS SECTION DIMENSIONS OF STRUCTURAL SOFTWOOD AND HARDWOOD
- General: Dimensions given on drawings and in schedules of work are finished sizes.
  - Maximum permitted deviations from finished sizes:
  - Sawn surfaces:
    - Thickness and widths < 100 mm: -1, +3 mm.
    - Thickness and widths > 100 mm: -2, +4 mm.
  - Further processed surfaces:
    - Thickness and widths < 100 mm: -1, +1 mm.
    - Thickness and widths > 100 mm: -1.5, +1.5 mm.
- 680 WARPING OF TIMBER
- Bow, spring, twist and cup: Not greater than the limits set down in BS 4978 or BS EN 14081-1 for softwood, or BS 5756 for hardwood.
- 690 PROCESSING TREATED TIMBER
- Cutting and machining: Carry out as much as possible before treatment.
  - Extensively processed timber: Retreat timber sawn lengthways, thickened, planed, ploughed, etc.
  - Surfaces exposed by minor cutting and/ or drilling: Treat with two flood coats of a solution recommended by main treatment solution manufacturer.
- 730 PARTIAL REMOVAL OF EXISTING DECORATIVE/ PROTECTIVE FINISH As instructed
- Extent: Remove minimum necessary to expose damaged or decayed wood. Feather the edge of remaining coating around repair site.
  - Method: Careful abrasion using moistened waterproof abrasive paper.
- 760 REPAIR OF MEMBERS - CUTTING OUT MEMBERS
- Extent of timber removal: Cut out full cross section of member where wood is defective or decayed, plus 50 mm of sound wood.
  - Distance from face of support to cut end of existing timber: Obtain instructions if dimension exceeds ??? mm.
  - Joint profile: Square cut.
- 780 REPAIR OF DISTORTED TIMBER MEMBERS
- Generally: Repair to shape that member has assumed.
- 790 PEGS FOR MORTISE AND TENON JOINTS IN STRUCTURAL TIMBER
- Wood species: Oak.
  - Condition: Dry, preferably oven 'baked' before use.
  - Shape: Round and tapered.
  - Second hand pegs: Do not use.
  - Peg holes: Slightly offset such that when pegs are driven home, sections being joined are pulled together.
- 810 USE OF TOOTHED PLATE CONNECTORS
- Between timber sections: Double sided.
  - Between timber and steel: Single sided.
- 820 MAKING CONNECTED JOINTS
- Connector location: Where not shown otherwise, spacings, end and edge distances to be not less than Standard values to BS 5268-2, Section 6.
  - Bolt hole: As close as practical to nominal diameter of bolt, and not more than 2 mm greater.
  - Centres of bolt holes: Not more than 2 mm from positions shown on drawings.
  - Assembly: Do not crush timber, deform washers or overstress bolts.



840 FIXING FRAMING ANCHORS AND CLEATS

- Before installation: Submit details if joint geometry prevents installation to manufacturer's recommendations.
- Installation: Secure using not less than number of fasteners recommended by manufacturer.

860 MOISTURE CONTENT CHECKING

- Procedure: When instructed, check moisture content of timber sections with an approved electrical moisture meter.
- Test results: Keep records of all tests. If moisture content falls outside specified range obtain instructions.

**COMPLETION**

910 MECHANICALLY FASTENED JOINTS

- General: Inspect accessible bolted, coach screwed and timber pegged joints and tighten fasteners if necessary.
- Timing: On Completion and at end of Defects Liability Period or Rectification Period.

**E05 IN SITU CONCRETE CONSTRUCTION GENERALLY**

To be read with Preliminaries/General conditions.

- 210 DESIGN OF STRUCTURAL CONCRETE GROUND FLOOR CORRIDOR SLAB
- Description: Reinforced concrete slab.
  - Standards for design: To BS 8110.
  - Dead/ Imposed loadings: As BS6399.
  - Other loadings: None.
  - Other requirements: None.
- 300 LEVELS OF STRUCTURAL CONCRETE FLOORS
- Tolerances: See Preliminaries section A33.
- 313 SURFACE REGULARITY OF FLOORS - SURFACES TO RECEIVE SHEET/ TILE FINISHES DIRECTLY BEDDED IN ADHESIVE
- Maximum permissible deviation when measured as clause 310:
    - 5 mm under a 3 m straightedge.
    - 2 mm under a 1 m straightedge.
- 314 SURFACE REGULARITY OF FLOORS - SURFACES TO RECEIVE SCREEDS/ BEDS
- Maximum permissible deviation when measured as clause 310:
    - Screeds/ beds up to 50 mm thick: 10 mm under a 3 m straightedge.

**E10 MIXING/CASTING/CURING IN SITU CONCRETE**

To be read with Preliminaries/General conditions.

**15 SPECIFICATION**

- Concrete generally: To BS 8500-2.
- Exchange of information: Provide concrete producer with information required by BS 8500-1, clauses 4 and 5.

**25 BASIC DESIGNATED CONCRETE** For all in situ concrete

- Designation: RC28/35.
- Coarse recycled aggregates: RCA permitted.
- Consistence class: S3.
- Additional requirements: Submit proposals.

**45 PROPERTIES OF FRESH CONCRETE**

- Adjustments to suit construction process: Determine with concrete producer. Maintain conformity to the specification.

**50 PREMATURE WATER LOSS**

- Requirement: Prevent water loss from concrete laid on absorbent substrates.
- Underlay: Polyethylene sheet 250 micrometres thick.
- Installation: Lap edges 150 mm.

**60 PLACING AND COMPACTING**

- Surfaces to receive concrete: Clean, with no debris, tying wire clippings, fastenings or free water.
- Timing: Place as soon as practicable after mixing and while sufficiently plastic for full compaction.
- Temperature limitations for concrete: 30°C (maximum) and 5°C (minimum). Do not place against frozen or frost covered surfaces.
- Compaction: Fully compact to full depth to remove entrapped air especially around reinforcement, cast-in accessories, into corners of formwork and at joints. Continue until air bubbles cease to appear on the top surface.
- Methods of compaction: To suit consistence class and use of concrete.

**70 CURING AND PROTECTING**

- Evaporation from surfaces of concrete: Prevent throughout curing period.
- Surfaces covered by formwork: Retain formwork in position and, where necessary to satisfy curing period, cover surfaces immediately after striking.
- Top surfaces: Cover immediately after placing and compacting. Replace cover immediately after any finishing operations.
- Curing periods:
- Surfaces which in the finished building will be exposed to the elements, and wearing surfaces of floors and pavements: 10 days (minimum).
- Other structural concrete surfaces: 5 days (minimum).
- Protection: Protect concrete from shock, indentation and physical damage.



**E20 FORMWORK FOR IN SITU CONCRETE**

**70 FORMWORK**

- General: Accurately and robustly constructed to produce finished concrete to the required dimensions.
- Formed surfaces: Free from twist and bow with intersections, lines and angles square, plumb and true.
- Joints between forms and completed work: Prevent loss of grout and formation of steps.
- Holes and chases: Form with inserts or box out as required.

**E30 REINFORCEMENT FOR IN SITU CONCRETE**

**30 FABRIC REINFORCEMENT FOR GROUND FLOOR SLAB**

- Standard: To BS 4483.
- Strength grade: B500B.

**40 CONDITION OF REINFORCEMENT**

- At time of placing concrete: Free from corrosive pitting, loose mill scale, loose rust and contaminants which may adversely affect the reinforcement, concrete, or bond between the two.

**55 LAPS IN REINFORCEMENT**

- Laps in bar reinforcement (minimum): 40 x bar diameter.
- Laps in fabric reinforcement (minimum): 40 x bar diameter.

**70 FIXING REINFORCEMENT**

- Standard: To BS 7973-1 and -2.
- Installation: Provide adequate support, tie securely and maintain the specified cover.
- Tying wire: 16 gauge black annealed. Prevent intrusion into the concrete cover.

**F10 BRICK/ BLOCK WALLING**

- 5 FACING BRICKWORK To Basement Walls Above DPC
- Bricks: To BS EN 771-1.
  - Manufacturer: Submit proposals.  
Product reference: Submit proposals.
  - Recycled content: Submit proposals.
  - Special shapes: To match existing.
  - Mortar: As section Z21.
  - Standard: To BS EN 998-2.
  - Mix: 1:1:6 cement:lime:sand.
  - Bond: To match existing.
  - Joints: Approved.
- 45 ENGINEERING BRICKWORK Below DPC
- Bricks: To BS EN 771-1.
  - Manufacturer: Contractor's choice.  
Product reference: Submit proposals.
  - Type: HD.
  - Mean compressive strength: Greater than or equal to 75 N/mm<sup>2</sup>.
  - Category: II.
  - Water absorption: Equal to or less than 4.5%.
  - Freeze/ thaw category: F2.
  - Active soluble salts content category: S2.
  - Additional requirements: None.
  - Mortar: As section Z21.
  - Standard: To BS EN 998-2.
  - Mix: 1:0.25:3 cement:lime:sand.
  - Additional requirements: None.
  - Bond: To match existing.
  - Joints: Flush.
- 51 BASIC WORKMANSHIP
- Bond where not specified: Half lap stretcher.
  - Mortar joints: Fill all vertical joints. Lay bricks, solid and cellular blocks on a full bed.
  - AAC block thin mortar adhesive and gypsum block adhesive joints: Fill vertical joints. Lay blocks on a full bed.
  - Clay block joints:
    - Thin layer mortar: Lay blocks on a full bed.
    - Interlocking perpend: Butted.
  - Quoins and advance work: Rack back.
  - Locations for equal levelling of cavity wall leaves:
    - Every course containing vertical twist type ties or other rigid ties.
    - Every third tie course for double triangle/ butterfly ties.
  - Courses in which lintels are to be bedded.
  - Lift height (maximum) for walling using cement gauged or hydraulic lime mortar: 1.2 m above any other part of work at any time.
  - Daily lift height (maximum) for walling using cement gauged or hydraulic lime mortar: 1.5 m for any one leaf.
  - Lift height (maximum) for walling using thin joint mortar glue: 1.3 m above any other part of work at any time.



55 FACEWORK

- Commencement of facework: Not less than 150 mm below finished level of adjoining ground or external works level.
- Brick/ block selection: Do not use units with damaged faces or arrises.
- Cut masonry units: Where cut faces or edges are exposed cut with table masonry saw.
- Coursing brickwork and concrete blockwork: Evenly spaced using gauge rods. To produce satisfactory junctions and joints with built-in elements and components.

60 ALTERATIONS/ EXTENSIONS

- Coursing: Line up with existing work.
- Block bonding new walls to existing: Unless agreed otherwise cut pocket requirements as follows:
  - Width: Full thickness of new wall.
  - Depth (minimum): 100 mm.
  - Vertical spacing: As follows:
    - Brick to brick: 4 courses high at 8 course centres.
    - Block to block: Every other course.
  - Pocket joints: Fully filled with mortar.
- New and existing facework in the same plane: Bonded together at every course to achieve continuity of bond and coursing.
- Support of existing work: Fully consolidate joint above inserted lintel or masonry with Semi-dry mortar to support existing structure.

66 FIRE STOPPING

- Avoidance of fire and smoke penetration: Fit tightly between cavity barriers and masonry. Leave no gaps.

90 CRACKED BRICKS IN EXISTING FACEWORK

- Replacement: Prior to repointing adjacent cracked joints, cut out and replace with matching sound bricks to approval.
- Jointing mortar: As section Z21.
- Standard: Not applicable.
- Mix: 1:1:6 cement:lime:sand.

**M20 PLASTERED/ RENDERED/ ROUGHCAST COATINGS**

- 19 PROPRIETARY RENDER To external areas following crack repairs
- Substrate: Existing brickwork.
  - Preparation: Bonding layer.
  - Manufacturer: Telling Lime Products Ltd., 7, The Dell, Enterprise Drive, Four Ashes, Wolverhampton, WV10 7DF, or equivalent approved.
  - Undercoats:
  - Product reference: to be advised.
  - Thickness (excluding dubbing out and keys): to be advised.
  - Final coat:
  - Product reference: to be advised.
  - Thickness: to be advised.
  - Finish: to match existing.
- 47 ONE COAT PROPRIETARY PLASTER To internal walls following repairs
- Substrate: Existing bricks/timber backing.
  - Preparation: as per manufacturer's recommendations.
  - Plaster manufacturer: Contractor's choice to approval.
  - Product reference: To be advised.
  - Thickness (excluding dubbing out and keys): To suit existing.
  - Finish: To match existing.
- 65 MIXING
- Render mortars (site-made):
  - Batching: By volume using gauge boxes or buckets.
  - Mix proportions: Based on damp sand. Adjust for dry sand.
  - Mixes: Of uniform consistence and free from lumps.
- 67 COLD WEATHER
- Internal work: Take precautions to prevent damage to internal coatings when air temperature is below 3°C.
  - External work: Avoid when air temperature is at or below 5°C and falling or below 3°C and rising.
- 71 SUITABILITY OF SUBSTRATES
- General: Suitable to receive coatings. Sound, free from contamination and loose areas.
- 74 EXISTING DAMP AFFECTED PLASTER/ RENDER
- Plaster affected by rising damp: Remove to a height of 300 mm above highest point reached by damp or 1 m above dpc, whichever is higher.
  - Perished and salt contaminated masonry:
  - Mortar joints: Rake out.
  - Masonry units: Submit proposals.
  - Drying out substrates: Establish drying conditions.
- 76 REMOVING DEFECTIVE EXISTING PLASTER
- Plaster for removal: Loose, hollow, soft, friable, badly cracked, affected by efflorescence or otherwise damaged.
  - Removing plaster: Cut back to a square, sound edge.

- 78 REMOVING DEFECTIVE EXISTING RENDER
- Render for removal: Detached, hollow, soft, friable, badly cracked, affected by efflorescence or otherwise damaged.
  - Removing defective render: Cut out to regular rectangular areas with straight, square cut or slightly undercut edges.
  - Render with imitation joints: Cut back to joint lines.
  - Cracks (other than hairline cracks): Cut out to a width of 75 mm (minimum).
- 80 PLASTERBOARD BACKINGS
- Additional framing supports:
  - Fixtures, fittings and service outlets: Accurately position to suit fasteners.
  - Board edges and perimeters: To suit type and performance of board.
  - Joints:
  - Joint widths (maximum): 3 mm.
  - End joints: Stagger between rows.
  - Two layer boarding: Stagger joints between layers.
  - Joint reinforcement tape: Apply to joints and angles except where coincident with metal beads.
- 82 BEADS/ STOPS
- Location: External angles and stop ends.
  - Materials:
  - External render: Stainless steel.
  - Internal plaster/ render: Galvanized steel.
  - Fixing: Secure and true to line and level.
  - Beads/ stops to external render: Fix mechanically.
- 87 APPLICATION OF COATINGS
- General: Apply coatings firmly and achieve good adhesion.
  - Appearance of finished surfaces: Even and consistent. Free from rippling, hollows, ridges, cracks and crazing.
  - Accuracy: Finish to a true plane with walls and reveals plumb and square.
  - Drying out: Prevent excessively rapid or localized drying out.
  - Keying undercoats: Cross scratch (plaster coatings) and comb (render coatings). Do not penetrate undercoat.
- 93 CURING AND DRYING OF RENDER COATINGS
- Curing: Keep each coat damp by covering with polyethylene sheet and/ or spraying with water
  - Curing period (minimum): To manufacturer's recommendations.
  - Drying: Allow each coat to dry thoroughly, with shrinkage substantially complete before applying next coat.



## Z21 Mortars

- 10 MORTAR MIXES
- Specification: Proportions and additional requirements for mortar materials are specified elsewhere.
- 25 SAND FOR LIME:SAND MASONRY MORTARS
- Type: Sharp, well graded.
  - Quality, sampling and testing: To BS EN 13139.
  - Grading/ Source: As specified elsewhere.
- 30 READY-MIXED LIME:SAND FOR CEMENT GAUGED MASONRY MORTARS
- Standard: To BS EN 998-2.
  - Lime: Nonhydraulic to BS EN 459-1.
  - Type: CL 90S.
  - Pigments for coloured mortars: To BS EN 12878.
- 40 CEMENTS FOR MORTARS
- Cement: To BS EN 197-1 and CE marked.
  - Types: Portland cement, CEM I.  
Portland limestone cement, CEM II/A-LL.  
Portland slag cement, CEM II/B-S.  
Portland fly ash cement, CEM II/B-V.
  - Strength class: 32.5, 42.5 or 52.5.
  - White cement: To BS EN 197-1 and CE marked.
  - Type: Portland cement, CEM I.
  - Strength class: 52.5.
  - Sulfate resisting Portland cement:
  - Types: To BS 4027 and kitemarked.  
To BS EN 197-1 fly ash cement, CEM II/B-V and CE marked.
  - Strength class: 32.5, 42.5 or 52.5.
  - Masonry cement: To BS EN 413-1 and CE marked.
  - Class: MC 12.5.
- 50 ADMIXTURES FOR SITE MADE MORTARS
- Air entraining (plasticizing) admixtures: To BS EN 934-3 and compatible with other mortar constituents.
  - Other admixtures: Submit proposals.
  - Prohibited admixtures: Calcium chloride, ethylene glycol and any admixture containing calcium chloride.
- 60 MAKING MORTARS GENERALLY
- Batching: By volume. Use clean and accurate gauge boxes or buckets.
  - Mix proportions: Based on dry sand. Allow for bulking of damp sand.
  - Mixing: Mix materials thoroughly to uniform consistency, free from lumps.
  - Mortars containing air entraining admixtures: Mix mechanically. Do not overmix.
  - Contamination: Prevent intermixing with other materials.
- 70 MAKING HYDRAULIC LIME:SAND MORTARS
- Mixing hydrated hydraulic lime:sand: Follow the lime manufacturer's recommendations for each stage of the mix.  
Water quantity: Only sufficient to produce a workable mix.

#### REPAIR TYPE 1 – CRACK STITCHING TO EXTERNAL FAIR FACED BRICKWORK

- Replace cracked bricks as C41/330 & C41/365
- Rake out or cut slots into horizontal mortar beds, a minimum of 500mm either side of the crack in every second brick course.
- Insert joint reinforcement as C41/285
- Repoint as per C41/820

#### REPAIR TYPE 2 – CRACK STITCHING TO EXTERNAL RENDERED BRICKWORK

- Remove render as per M20/78 area as necessary to ascertain extent of damage to brickwork.
- Replace cracked bricks as C41/330 & C41/365
- Rake out or cut slots into horizontal mortar beds, a minimum of 500mm either side of the crack in every second brick course.
- Insert joint reinforcement as C41/285
- Repoint as per C41/820
- Re-apply render as per M20/19

#### REPAIR TYPE 3 – CRACK STITCHING TO INTERNAL PLASTERED BRICKWORK

- Remove plaster as per M20/76 500mm each side of crack to expose crack and base structure.
- Replace cracked bricks as C41/330 & C41/365
- Rake out or cut slots into horizontal mortar beds, a minimum of 500mm either side of the crack in every second brick course.
- Insert joint reinforcement as C41/285
- Repoint as per C41/820
- Re-apply plaster as per M20/47

#### REPAIR TYPE 4 - PLASTER REPAIR

- Remove plaster as per M20/566 25mm each side of crack to expose base structure.
- Make good plaster as per M20/47

#### REPAIR TYPE 5 - INSERTION OF PROPRIETARY LATERAL RESTRAINT BOW TIES

- Insert proprietary lateral restraint bow ties as per C41/650.
- Make good as per C41/690

#### REPAIR TYPE 6 – REPAIR OF DECAYED TIMBER WALL PLATES

- Remove plaster as per M20/76 200mm beyond extent of water staining to expose timber rafters and wall plate.
- Inspect area with CA as per C51/110.
- Temporarily prop adjacent joists/rafters.
- Carefully remove decayed timber to agreed extent.
- Position new section of wall plate with 150mm lap length to each side of decayed length.
- Fix in position with stainless steel coach screws.
- Make good plaster as per C41/690.

**REPAIR TYPE 7 – REPAIR OF DECAYED TIMBER RAFTER FEET**

- Remove plaster as per M20/76 200mm beyond extent of water staining to expose timber rafters and wall plate.
- Inspect area with CA as per C51/110
- Temporarily prop rafters as required.
- Carefully remove decayed timber to agreed extent
- Pre-drill holes in both timbers
- Position repair timber and fix bolts with washers under heads. Fully tighten.
- Provide HD9090 angle brackets by Expamet or equivalent approved in pairs at rafter feet, fixed to rafter and wall plate in accordance with manufacturer's recommendations.

**REPAIR TYPE 8 – REPAIR OF HORIZONTAL CRACKING IN INTERNAL PLASTERED BRICK WALLS**

- Remove plaster as per M20/76 100mm either side of horizontal cracking
- Inspect area with CA as per C51/110
- Provide 90 x 90 angle brackets in pairs between rafter feet/joist ends and timber wall plate.
- Make good plaster as per C41/690.



COLLECTION

Page No.	3/1
Page No.	3/2
Page No.	3/3
Page No.	3/4
Page No.	3/5
Page No.	3/6
Page No.	3/7
Page No.	3/8
Page No.	3/9
Page No.	3/10
Page No.	3/11
Page No.	3/12
Page No.	3/13
Page No.	3/14
Page No.	3/15
Page No.	3/16
Page No.	3/17
Page No.	3/18
Page No.	3/19
Page No.	3/20
Page No.	3/21
Page No.	3/22
Page No.	3/23
Page No.	3/24
Page No.	3/25
Page No.	3/26
Page No.	3/27

**SPECIFICATION  
CARRIED TO SUMMARY**

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**4.0 ITEMISED SCHEDULE OF WORKS – REPAIR OF DAMAGE ASSOCIATED WITH GROUND MOVEMENT.**

Please note that the photographs which appear on some of the drawings are NOT rectified and should NOT BE SCALED.

**EXTERIOR****4.1 FRONT ELEVATION – ZONE A (Refer to Photo 1)**

4.1.1 Allow to provide all scaffold access required to carry out the works. Provide designs in accordance with the specification for approval by the Structural Engineer.

4.1.2 Allow to repair cracks in 2 No. second floor spandrel walls, allowing for installation of 8 No. 1.5m lengths of Helifix HeliBar [crack stitch repair type 1].

4.1.2 Allow to repair cracks in 2 No. first floor spandrel walls, allowing for installation of 8 No. 1.5m lengths of Helifix HeliBar [crack stitch repair type 1].

4.1.3 Allow to carefully remove render in area of cracking to plinth wall under 1 No. ground floor window and ascertain extent of damage to brickwork.

4.1.4 Allow to repair cracks below 1 No. ground floor window. Insert Helifix HeliBar stainless steel bars, or equivalent approved, within exposed brickwork in accordance with manufacturer's recommendations, allowing for 2 No. 1m lengths [crack stitch repair type 1].

4.1.5 Provisionally allow to insert Helifix HeliBar stainless steel bars in two number bed joints within rendered brickwork below 1 No. ground floor window, allowing for installation of 8 No. 1.5m lengths of Helifix HeliBar [crack stitch repair type 2].

4.1.6 Allow to carefully reset slipped bricks and pack tight with slate, and repoint in a lime putty mortar, 4 No. of flat brick arches over windows.

4.1.7 Allow to fill and repoint cracks to rendered pediment and string courses.

4.1.8 Allow to insert Helifix Bow ties or equivalent approved in 8 No. locations [repair type 5].

**4.2 FRONT ELEVATION – ZONE B (Refer to Photo 2)**

4.2.1 Provisionally allow to repair cracks in 2 No. spandrel walls, allowing for installation of 8 No. 1.5m lengths of Helifix HeliBar [crack stitch repair type 1].

**4.3 FRONT ELEVATION – ZONE C (Refer to Photo 3)**

4.3.1 Allow to provide all scaffold access required to carry out the works. Provide designs in accordance with the specification for approval by the Structural Engineer.

4.3.2 Allow to rake out and repoint vertical joint at junction between Zone B and Zone C facades. Allow for inspection from scaffold access by Structural Engineer.

4.3.3 Allow to repair cracks in brickwork to 2 No. first floor spandrel walls Insert Helifix HeliBar stainless steel bars, or equivalent approved, within exposed brickwork

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in accordance with manufacturer's recommendations, allowing for 8 No. 2m lengths [crack stitch repair type 1].

- 4.3.4 Allow to repair cracks in brickwork to 1 No. ground level floor spandrel wall. Insert Helifix HeliBar stainless steel bars, or equivalent approved, within exposed brickwork in accordance with manufacturer's recommendations, allowing for 4 No. 2m lengths [crack stitch repair type 1].

- 4.3.5 Allow to carefully reset slipped bricks and pack tight with slate, and repoint in a lime putty mortar, 2 No. flat brick arches over windows.

- 4.3.6 Allow to repair cracks in brickwork at ground level at north east corner of zone C. Insert Helifix HeliBar stainless steel bars, or equivalent approved, within exposed brickwork in accordance with manufacturer's recommendations, allowing for 4 No. 2m lengths [crack stitch repair type 1].

- 4.3.7 Allow to re-bed 2 No. coping stones at high level and to fully repoint all joints.

#### 4.4 SIDE ELEVATION (Refer to Photo 4)

- 4.4.1 Allow to repair cracking to north side of bin store. Insert Helifix HeliBar stainless steel bars, or equivalent approved, within exposed brickwork in accordance with manufacturer's recommendations, allowing for 6 No. 1m lengths [crack stitch repair type 1].

#### 4.5 REAR ELEVATION (Refer to Photos 5 & 6)

- 4.5.1 Allow to repair crack at ground level at eastern end of rear elevation. Insert Helifix HeliBar stainless steel bars, or equivalent approved, within exposed brickwork in accordance with manufacturer's recommendations, allowing for 3 No. 1m lengths [crack stitch repair type 1].

- 4.5.2 Allow to repair crack at parapet level. Insert Helifix HeliBar stainless steel bars, or equivalent approved, within exposed brickwork in accordance with manufacturer's recommendations, allowing for 3 No. 1m lengths [crack stitch repair type 1].

- 4.5.3 Allow to re-bed 2 No. coping stones and to fully repoint all joints.

- 4.5.4 Allow to repair crack at ground level at eastern end of rear elevation. Insert Helifix HeliBar stainless steel bars, or equivalent approved, within exposed brickwork in accordance with manufacturer's recommendations, allowing for 4 No. 1m lengths [crack stitch repair type 1].

- 4.5.5 Allow to carefully remove render in area of damaged plinth and for inspection of condition of stone backing. Allow for 1500mm x 200mm area of render repair.

#### INTERIOR

#### 4.6 SECOND FLOOR (Refer to Drawing number 14582/A3/04)

##### ROOM S3

S2 Include

- 4.6.1 Allow to carefully remove plaster to sloping section of ceiling and ascertain extent of damage to timber. Allow for timber inspection by CA and provisionally allow for replacing 2.0m length of timber wall plate with half lapped joints, ensuring full allowance is made for temporary works. Allow for new rafter feet to 30% rafters [timber repair type 6 & 7]



		£	P
4.6.2	Allow to repair all areas of plaster affected by opening up & decorate all walls and ceiling to match existing.		
4.6.3	Allow to carefully lift floor coverings and boards to expose substructure for inspection adjacent to north wall, and re-lay boards and floor coverings on completion of inspection works.		
	<b>ROOM S4</b>		
X 4.6.4	Allow to locally remove and make good plaster in areas of minor cracking, total crack length 3.0m [repair type 4].		
4.6.5	Allow to decorate all walls to match existing.		
4.6.6	Allow to carefully lift floor coverings and boards to expose substructure for inspection adjacent to north wall, and re-lay boards and floor coverings on completion of inspection works.		
	<b>ROOM S5</b>		
X 4.6.7	Allow to locally remove and make good plaster in areas of minor cracking, total crack length 4.0m [repair type 4].		
4.6.8	Allow to decorate all walls to match existing.		
4.6.9	Allow to carefully lift floor coverings and boards to expose substructure for inspection adjacent to north wall, and re-lay boards and floor coverings on completion of inspection works.		
	<b>ROOM S6</b>		
X 4.6.10	Allow to locally remove and make good plaster in areas of minor cracking, total crack length 6.0m [repair type 4].		
4.6.11	Allow to decorate all walls to match existing.		
	<b>SECOND FLOOR LANDING</b>		
X 4.6.12	Allow to locally remove and make good plaster in areas of cracking, total crack length 4.0m [repair type 4].		
4.6.13	Allow to decorate all walls and ceiling to match existing.		
4.7	<b>FIRST FLOOR (Refer to Drawing number 14582/A3/03)</b>		
	<b>ROOM F3</b>		
4.7.1	Allow to carefully remove plaster to walls in areas of cracking and investigate extent of damage to sub-structure. Provisionally allow to carry out crack repair type 3 to 1m length of diagonal crack. Insert Helifix Helibar or equivalent approved in accordance with manufacturer's recommendations in 4 No. 1 m lengths [crack stitch repair type 3].		
4.7.2	Allow to decorate all walls and ceiling to match existing.		

		£	p
✓	<b>ROOM F4</b>		
4.7.3	Allow to carefully remove plaster to walls in areas of cracking and investigate extent of damage to sub-structure.		
4.7.3	Allow to repair horizontal cracks to walls at junction with ceiling. Carefully remove plaster and make good, total crack length 9m [repair type 4].		
4.7.4	Allow to decorate all walls and ceiling to match existing.		
4.7.5	Allow to carefully lift floor coverings and boards to expose substructure for inspection adjacent to north wall, and re-lay boards and floor coverings on completion of inspection works.		
✓	<b>ROOM F4A</b>		
4.7.6	Allow to repair cracks to all walls. Carefully remove plaster and make good, total crack length 6.0m [repair type 4].		
4.7.7	Allow to decorate all walls and joinery to match existing.		
4.7.8	Allow to carefully lift floor coverings and boards to expose substructure for inspection adjacent to north wall, and re-lay boards and floor coverings on completion of inspection works.		
X	<b>ROOM F5</b>		
4.7.9	Allow to decorate all walls and ceiling to match existing.		
4.7.10	Allow to carefully lift floor coverings and boards to expose substructure for inspection adjacent to north wall, and re-lay boards and floor coverings on completion of inspection works.		
	<b>LOBBY TO F5</b>		
4.7.11	Allow to decorate walls to match existing.		
✓	<b>ROOM F6</b>		
4.7.12	Allow to repair vertical and horizontal cracks through east wall (to the north side of chimney breast), total crack length 6.0m [repair type 3].		
4.7.13	Allow to decorate all walls and ceiling to match existing.		
4.7.14	Allow to carefully lift floor coverings and boards to expose substructure for inspection adjacent to north wall, and re-lay boards and floor coverings on completion of inspection works.		
✓	<b>CORRIDOR</b>		
4.7.15	Allow to fill vertical crack total crack length 2.4m [repair type 4].		
X	<b>FIRST FLOOR GENTS TOILET</b>		
4.7.16	Allow to repair vertical crack through south east corner of room, total crack length 2.4m [repair type 4].		



**FIRST FLOOR LANDING**

- 4.7.17 Allow to carefully remove floor boards and to level floor using timber furring pieces. Screw fix furring pieces to top side of joists as required to create a level finish and re-fix floor boards.
- 4.7.18 Allow to repair cracking to top of stairs around window. Allow to carefully remove plaster and ascertain full extent of damage to brickwork. Method statements will be required prior to removal of brickwork. Allow to remove damaged brickwork and rebuild to match existing. Replaster.
- 4.7.19 Allow to decorate all walls of landing to match existing.

**ROOM F11**

- 4.7.20 Allow to repair vertical cracks through east wall. Insert Helifix Helibar or equivalent approved in accordance with manufacturer's recommendations in 10 No. 1 m lengths [crack stitch repair type 3].
- 4.7.21 Allow to repair all other cracks through all walls. Carefully remove plaster and make good, total crack length 10.0m [crack repair type 4]
- 4.7.22 Allow to redecorate all walls and ceiling to match existing.
- 4.7.23 Allow to carefully lift floor coverings and boards to expose substructure for inspection adjacent to north wall, and re-lay boards and floor coverings on completion of inspection works.

**ROOM F13**

- 4.7.24 Allow to repair cracks to all walls, total crack length 15m [crack repair type 4].
- 4.7.25 Allow to decorate all walls and ceiling to match existing.
- 4.7.26 Allow to carefully lift floor coverings and boards to expose substructure for inspection adjacent to north wall, and re-lay boards and floor coverings on completion of inspection works.
- 4.7.27 Allow to repair crack through north wall beneath right hand window. Insert Helifix Helibar or equivalent approved in accordance with manufacturer's recommendations in 4 No. 1 m lengths [crack stitch repair type 3].

**4.8 GROUND FLOOR (Refer to Drawing number 14582/A3/02)**

**BOARDROOM**

- ✓ 4.8.1 Allow to repair minor cracks over windows in north wall. Carefully remove plaster and make good, total crack length 2.0m [crack repair type 4].
- X 4.8.2 Allow to repair minor crack through decorative ceiling plaster, total crack length 2.0m.
- ✓ 4.8.3 Allow to carry out works to sash window frames to make good where frames have moved as a result of ground movement, including checking that they are fully operable on completion of the works.



		£	p
✓	<b>HALL</b>		
4.8.4	Allow to repair minor cracks around front door and over doorway to boardroom, total crack length 2.0m [crack repair type 4]		
4.8.5	Allow to decorate all walls to hall to match existing.		
✓	<b>TEACHING ROOM</b>		
4.8.6	Allow to make good ceiling over west window where cracked, total crack length 2.0m [crack repair type 4].		
✓	<b>GROUND FLOOR CORRIDOR</b>		
4.8.7	Allow to repair cracks at ceiling junction, total crack length 3.0m [repair type 4].		
4.8.8	Allow to repair vertical cracks through original external wall, total crack length 5m. Insert Helifix Helibar or equivalent approved in accordance with manufacturer's recommendations in 22 No. 1 m lengths [crack stitch repair type 3].		
4.8.9	Allow to decorate all walls to corridor in area adjacent to room G10 (refer to Drawing number 14582/A3/02 for location).		
4.8.10	Allow to carefully remove floor tiles in area at top of basement staircase in vicinity of cracking and retain for reuse.		
4.8.11	Allow to provide resin bonded stainless steel pins between sections of ground bearing slab on junction of crack. Provisionally allow to install 300mm long 10mm diameter dowel bars at 300mm centres (10 No. dowels).		
4.8.12	Allow to make good floor on completion of repair works. Detailed method statements will be required prior to commencement of these works.		
4.8.13	Allow to repair crack just above floor level, along G10 wall and G11 wall, total crack length 2.0m [repair type 4].		
✓	<b>ROOM G10</b>		
4.8.14	Allow to repair cracking through original external wall, total crack length 2m. Insert Helifix Helibar or equivalent approved in accordance with manufacturer's recommendations in 10 No. 1 m lengths [crack stitch repair type 3].		
4.8.15	Allow to repair cracks at junction with ceiling just above floor level, total crack length 8.0m [repair type 4].		
4.8.16	Allow to decorate all walls to match existing.		
4.8.17	Allow to decorate all windows to match existing.		
✓	<b>ROOM G11</b>		
4.8.18	Allow to repair cracks to all walls, total crack length 11.0m [repair type 4].		
4.8.19	Allow to decorate all walls to match existing.		

£ p

## ROOM G12

✓ 4.8.20 Allow to repair cracks to all walls, total crack length 6.0m [repair type 4].

4.8.21 Allow to decorate all walls and ceiling to match existing.

5.0 **ITEMISED SCHEDULE OF WORKS – REPAIR OF BASEMENT WALLS**  
(Refer to Drawing number 14582/A3/01)

*Numbering corrected 16/04/14*  
~~4.2~~ 5.1 Allow for careful removal of trial area of hard cementitious render and for inspection by CA. Allow for 300 x 300mm area of render removal.

~~4.3~~ 5.2 Provisionally allow to carefully remove all remaining hard cementitious render to basement walls. Allow for 3m x 1.5m area of render removal.

~~4.4~~ 5.3 Provisionally allow to carefully cut out and replace facing brickwork in a number of separate areas, to be carried out sequentially. Allow for a total area of brick replacement extending to 14m x 1.2m in accordance with specification. Full method statements and sequencing will need to be provided and agreed with the CA prior to starting works. *only cracking to allow starting*

6 5.0 **ITEMISED SCHEDULE OF WORKS – MAINTENANCE ITEMS**

6 5.1 Allow to provide access to western box gutter and for inspection by CA. Allow for removal of vegetation and for CCTV survey of downpipes.

6 5.2 Provisionally allow for replacement of box gutter at junction with adjoining building including all associated works, allowing for new timber boarding and sub-structure, and new code 6 lead lining. Lead work to be installed in accordance with Lead Sheet Association details. Allow for works to a length of 9m x approx. average width of 400mm.

6 5.3 Allow to provide access to parapet gutters to all elevations and for inspection by CA. Allow for cleaning any blocked areas and for CCTV survey of all downpipes.

6 5.4 Provisionally allow for replacement of parapet gutters in localised areas including all associated works, allowing for new timber boarding and sub-structure, and new code 6 lead lining. Lead work to be installed in accordance with Lead Sheet Association details. Allow for works in a number of lengths totalling of 5m x approx. average width of 400mm.

6 5.5 Allow to provide access to loft space and for inspection by CA. Allow to investigate water ingress to second floor below and assess condition of timber in vicinity of rooms S5 & S6 under.

6 5.6 Allow to carefully remove plaster in south west corner of room S2 and allow for brickwork substrate to fully dry, prior to carrying out plaster repairs. Allow for an area of 2.4m x 500mm of plaster removal and repair.

6 5.7 Allow to repair softwood skirting board in room G12 where damaged with profile to match existing. Mitre joint with the existing section and redecorate full length of skirting board to match existing.

		£	p
7.0	SCAFFOLD		
7.1	Allow to provide all scaffold to undertake the works in accordance with the specification. This is to include both internal and external scaffold. The Contractor should refer to the scope of works to determine the full extent of scaffold needed.		
7.2	Physical ties into the fabric will not be accepted. Butting to the structure will be permitted providing individual butts can be removed at any one time to allow repair/replacement works to be carried out.		
7.3	Provide 2.4m hoarding to the base of the external scaffold to be painted to an agreed colour with no external fixings which can be released.		
7.4	On completion of the works carry out a professional clean of all parts of the building, ensuring that all surfaces and windows internally and all paintwork and windows externally are thoroughly cleaned.		



		£	p
8.0	<b>SCHEDULE OF RATES</b>		
8.1	Provisionally allow to carry out 5 No. repair type 1 each of 1m length, indicate extra over/under cost per repair type 1 [£..... per repair]		
8.2	Provisionally allow to carry out 5 No. repair type 2 each of 1m length, indicate extra over/under cost per repair type 2 [£..... per repair]		
8.3	Provisionally allow to carry out 5 No. repair type 3 each of 1m length, indicate extra over/under cost per repair type 3 [£..... per repair]		
8.4	Provisionally allow to carry out 5 No. repair type 4 each of 1m length, indicate extra over/under cost per repair type 4 [£..... per repair]		
8.5	Provisionally allow to carry out 5 No. repair type 5 each of 1m length, indicate extra over/under cost per repair type 5 [£..... per repair]		
8.6	Provisionally allow to carry out 5 No. repair type 6 each of 1m length, indicate extra over/under cost per repair type 6 [£..... per repair]		
8.7	Provisionally allow to carry out 5 No. repair type 7 each of 1m length, indicate extra over/under cost per repair type 7 [£..... per repair]		
8.8	Provisionally allow to carry out 5 No. repair type 8 each of 1m length, indicate extra over/under cost per repair type 8 [£..... per repair]		

COLLECTION

Page No. 4/1  
Page No. 4/2  
Page No. 4/3  
Page No. 4/4  
Page No. 4/5  
Page No. 4/6  
Page No. 4/7  
Page No. 4/8  
Page No. 4/9

£ p

SCHEDULE OF WORKS  
CARRIED TO MAIN SUMMARY

**COLLECTION**

1.0	General Conditions and Preliminaries (pages 1/6 – 1/26)	£	
2.0	Provisional Sums and Dayworks (pages 2/1)	£	
3.0	Specification (pages 3/1 to 3/28)	£	
4.0	Schedule of Works (pages 4/1 to 4/9))	£	
			<hr/>
			TOTAL
	£		<hr/>



Appendix A

Photos



Photograph 1: Part Front Elevation (Zone A)



Photograph 2: Part Front Elevation (Zone B)





Photograph 3: Part Front Elevation (Zone C)



Photograph 4: Side Elevation



**Photograph 5: Part Rear Elevation**





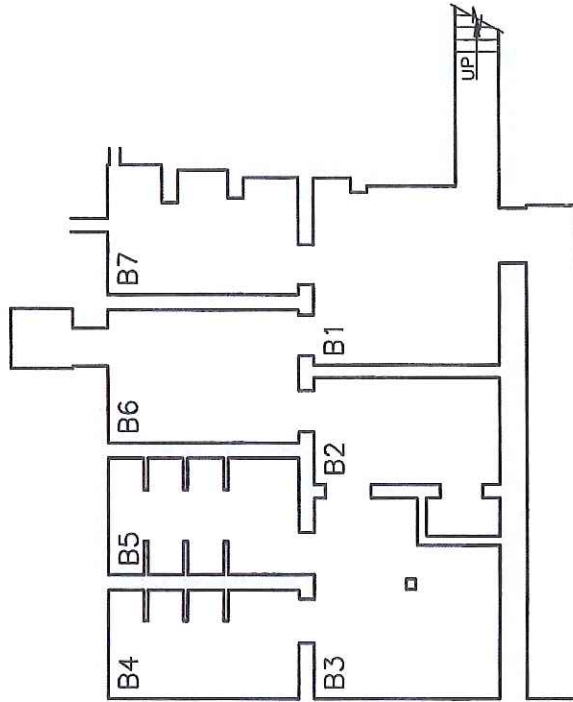
Photograph 6: Part Rear Elevation

**Appendix B**

**Floor Plans**

NOTES

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THORPE COOMBE HOUSE  
FOREST ROAD  
LONDON E17

BASEMENT PLAN

The Motion Partnership

CONCEPT DESIGN, ARCHITECTURAL, ENGINEERING, INTERIOR DESIGN, LANDSCAPE ARCHITECTURE

OLD THORPE YARD HOUSE  
11 THORPE YARD  
FOREST ROAD  
LONDON E17 7JF  
TEL: 020 7770 7770 FAX: 020 7770 7771  
EMAIL: info@thorpeyardhouse.co.uk

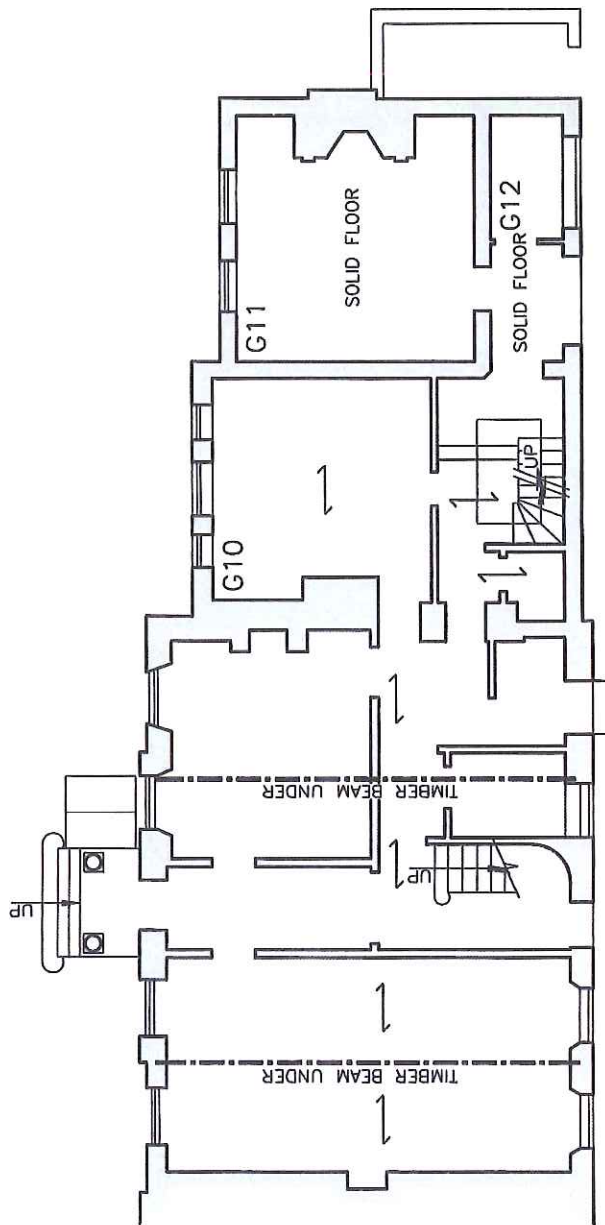
LOUNGE HOUSE  
11 THORPE YARD  
FOREST ROAD  
LONDON E17 7JF  
TEL: 020 7770 7770 FAX: 020 7770 7771  
EMAIL: info@loungehouse.co.uk

8 CHURCH STREET  
LONDON E17 7JF  
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EMAIL: info@8churchstreet.co.uk

SCALE: 1:100  
DATE: JAN 14  
CHECKED BY:  
DATE: 14/08/01



- NOTES
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REV. AMENDMENT DATE

THORPE COOMBE HOUSE  
FOREST ROAD  
LONDON E17

# GROUND FLOOR PLAN

## The Merrett Partnership

CONSULTING CIVIL & STRUCTURAL ENGINEERS  
11 MARKET PLACE  
LONDON EC1R 3BP

OUR THORPE COOMBE HOUSE  
PROJECT NO. 14582/A3/02  
DATE: 14/01/02  
DRAWN BY: J. H. J. 14/01/02  
CHECKED BY: J. H. J. 14/01/02  
DATE: 14/01/02

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TEL: 020 7460 1111  
FAX: 020 7460 1112  
EMAIL: info@merrett.co.uk

6 DORSET STREET  
LONDON W1T 3JH  
TEL: 020 7460 1111  
FAX: 020 7460 1112  
EMAIL: info@merrett.co.uk

SCALE: 1:100  
DATE: 14/01/02  
DRAWN BY: J. H. J.  
CHECKED BY: J. H. J.

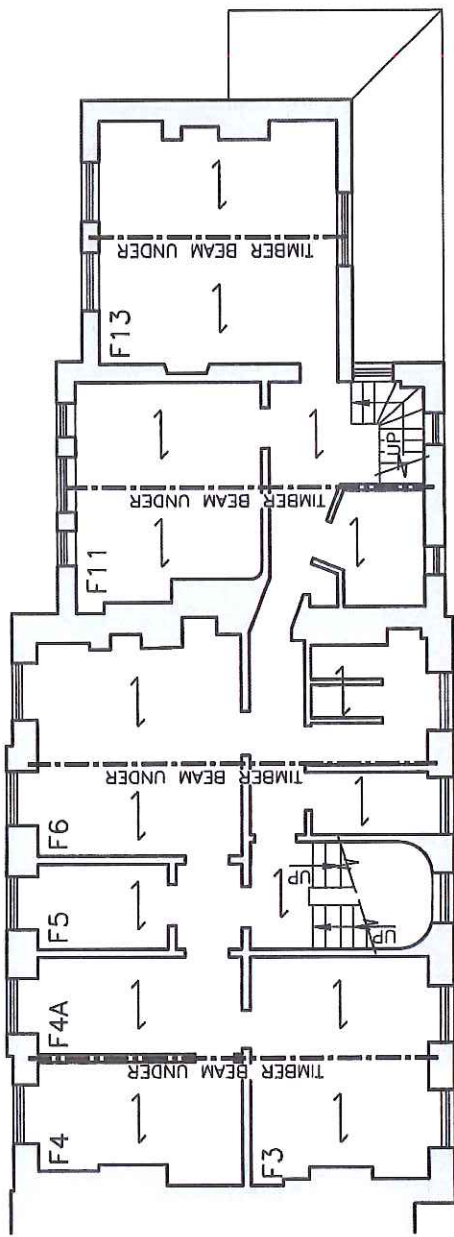
14582/A3/02

NOTES  
 1. ALL DIMENSIONS TO BE CHECKED ON SITE.  
 2. IN CASE OF ANY DISCREPANCY THE DIMENSIONS  
 ARE TO BE GIVEN AS SHOWN ON THE DRAWING.  
 3. THE DRAWING IS TO BE USED FOR CONSTRUCTION  
 WITH ALL NECESSARY JOINTS AND BRACES  
 TO BE SHOWN ON THE DRAWING AND SPECIFICATIONS  
 TO BE SHOWN ON THE DRAWING.

REV	REASON	DATE
1	AS SHOWN	14/03/03

THORPE COOMBE HOUSE  
 FOREST ROAD  
 LONDON E17

FIRST FLOOR PLAN



The Motor Partnership

CONSULTING CIVIL & STRUCTURAL ENGINEERS  
 11 MARKET PLACE  
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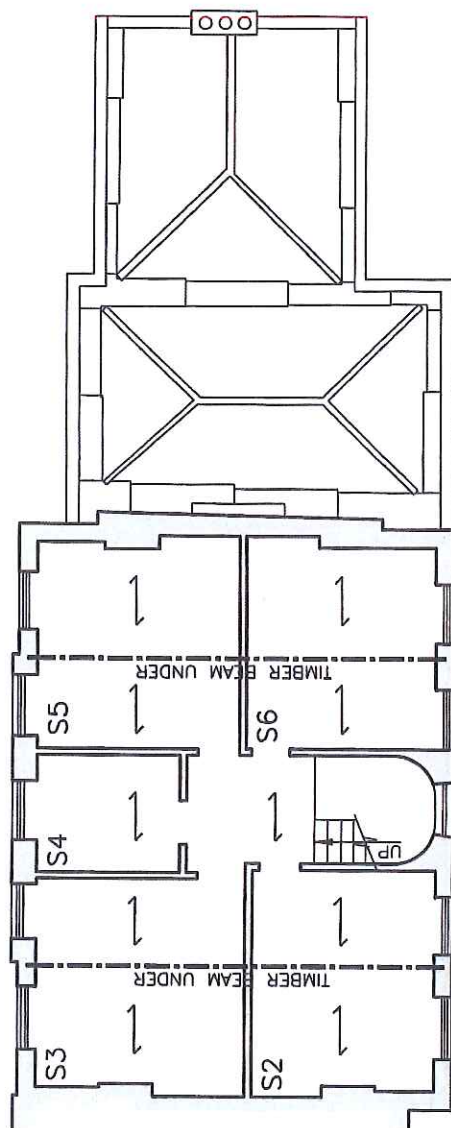
CONSULTING CIVIL & STRUCTURAL ENGINEERS  
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 EMAIL: info@thorpecoombehouse.co.uk

14582/A3/03

- NOTES
1. ALL DIMENSIONS TO BE GIVEN IN METRES UNLESS OTHERWISE STATED.
  2. IN CASE OF ANY DISCREPANCY THE DIMENSIONS ARE TO BE GIVEN IN METRES.
  3. ALL DIMENSIONS TO BE GIVEN TO THE CENTRE OF THE DIMENSION LINE UNLESS OTHERWISE STATED.



REV / AMENDMENT

DATE

THORPE COOMBE HOUSE  
FOREST ROAD  
LONDON E17

SECOND FLOOR PLAN

The Morton Partnership

CONSULTING CIVIL & STRUCTURAL ENGINEERS  
HISTORIC BUILDING SPECIALISTS

25 STURGEON WAY  
STURGEON WAY  
LONDON E17 7JH  
TEL: 020 7291 0200 FAX: 020 729 1188  
EMAIL: info@mortonpartnership.co.uk

LEONARDO HOUSE  
MILTON KEY  
MILTON KEY  
TEL: 01452 877561 FAX: 01452 877562  
EMAIL: info@mortonpartnership.co.uk

8 PARKWAY STREET  
COVENTRY CV4 7JH  
TEL: 02476 343433 FAX: 02476 343434  
EMAIL: info@mortonpartnership.co.uk

SCALE: 1:100 DRAWN BY: DM  
DATE: JUL 14 CHECKED BY:  
PDS No.

14582/A3/04



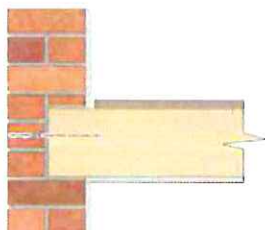
Appendix C  
Helifix Bow Tie Details

# BowTie

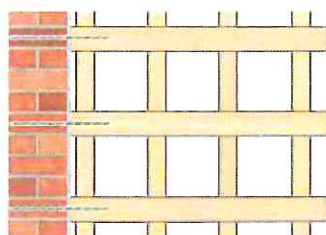
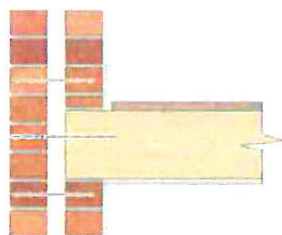
## Remedial ties for restraining bowed walls



BowTie into joist end  
through a solid wall



BowTie into joist end  
through a cavity wall



Restraining gable walls using mini retrofit purlins and BowTies

Over 100 standard repair specifications  
are available online, covering all common  
structural faults.

Relevant Repair Details: RDs RB01, RB03, RB04,  
RB06, RB07, RB09



For full Product Information,  
Case Studies and downloadable  
Repair Details go to:

[www.helifix.co.uk/products/remedial-products/bowtie/](http://www.helifix.co.uk/products/remedial-products/bowtie/)

## Applications

- For stabilising bowed external building walls by securing them to internal floor and ceiling joists
- Standard BowTies are recommended when installing into joist ends

## Features

- Quick, easy, non-disruptive external installation
- Self-tapping design – no splitting of timbers
- Effective in all common building materials
- Suitable for hardwood use
- Easily tested for security of fixing
- Fully concealed – no unsightly external plates

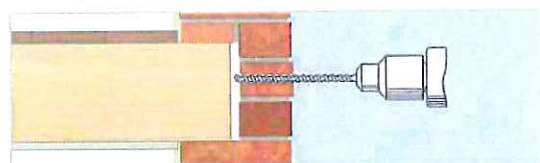


Drilling clearance hole for installing BowTie into joist end

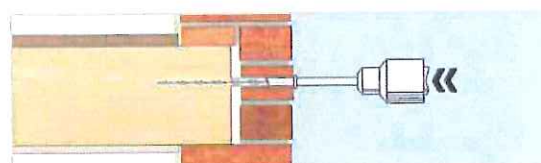
# Installation Procedures

1. Mark the positions of the joists on the external wall.
2. Drill clearance holes (normally 12mm), **through the masonry only**, in line with the centre of the joists.
3. Clean out the hole to clear any dust or debris.
4. Fit the power support tool into an SDS rotary hammer drill and insert the BowTie.
5. Drive the BowTie (roto stop) into the joist to the required depth (75mm minimum).
6. Fit the sleeve over the tie and push it to the back of the hole in the masonry (use the support tool).
7. Inject Helifix PolyPlus resin into the hole to fill it completely.
8. Make good all holes at the surface with brick dust or matching mortar or leave ready for any decoration.

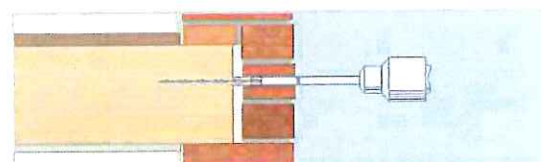
**NB** With a cavity wall, install 4 additional cavity wall ties in a 300mm square around the BowTie.



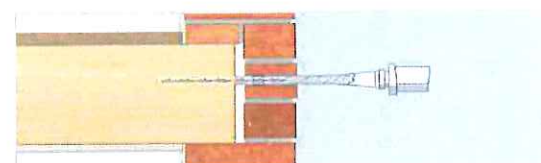
1. Mark the position of the joist centre on the external wall and then drill a clearance hole (normally 12mm) through the wall (and first joist if parallel to the wall). Clean out the hole



2. Fit the BowTie Support Tool to an SDS rotary hammer drill, insert the BowTie and drive it into joist end to the required depth – at least 75mm (or through the second joist if parallel)



3. Fit the plastic sleeve over the BowTie and use the support tool to push it to the back of the hole in the masonry (in the outer leaf in a cavity wall)



4. Inject PolyPlus resin to fill the hole and bond the BowTie to the masonry and then make good

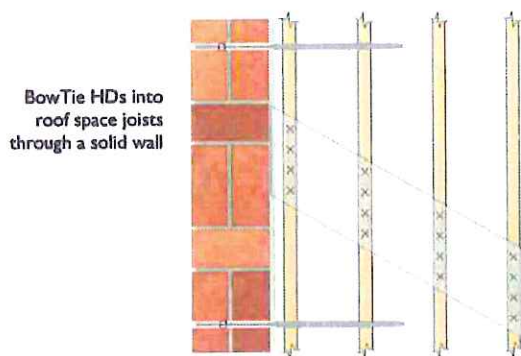
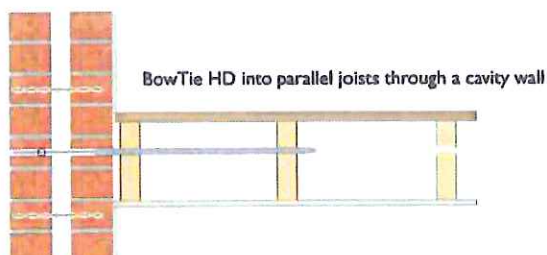
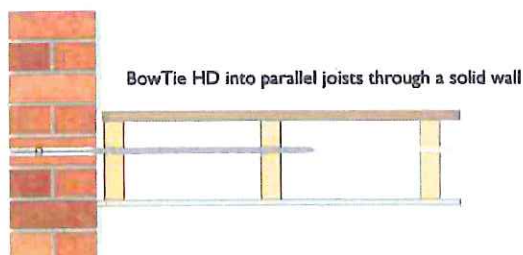
# Technical Specifications

Material:	Austenitic stainless steel Grade 304 (1.4301) or 316 (1.4401)
Diameter:	8mm
Length:	Thickness of the wall + any cavity + sufficient to drive 75mm minimum into the joist end
Standard lengths:	155mm, 170mm, 195mm, 220mm, 245mm, 270mm, 295mm, 325mm and 350mm – in packs of 10
Diameter of masonry clearance hole:	12mm
Fixing density:	Every joist in the affected area is to be secured
Bonding agent (near leaf only):	PolyPlus polyester resin
<b>RECOMMENDED TOOLING</b>	
For drilling clearance holes and insertion of BowTies:	SDS rotary hammer drill 650/700w with roto stop
For injection of PolyPlus resin:	Applicator gun and injection sleeve



## BowTie HD

### Remedial ties for restraining bowed walls



Over 100 standard repair specifications are available online, covering all common structural faults.  
Relevant Repair Details: RDs RB02, RB05, RB08



For full Product Information, Case Studies and downloadable Repair Details go to:

[www.helifix.co.uk/products/remedial-products/bowtie/](http://www.helifix.co.uk/products/remedial-products/bowtie/)



### Applications

- For stabilising bowed external building walls by securing them to internal floor and ceiling joists
- BowTie HDs are recommended when installing into joist sides

### Features

- Quick, easy, non-disruptive external installation
- Self-tapping design – no splitting of timbers
- Effective in all common wall materials
- Suitable for hardwood use
- Easily tested for security of fixing
- Fully concealed – no unsightly external plates

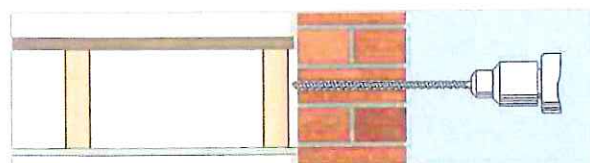


BowTie HDs installed through parallel floor joists

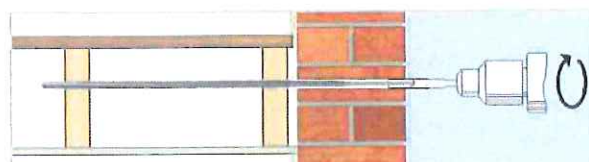
## Installation Procedures

1. Mark the positions of the joists on the external wall.
2. Drill clearance holes normally 16mm through the masonry only, in line with the centre of the joists.
3. Clean out the hole to clear any dust or debris.
4. Fit the power support tool into an SDS rotary hammer drill and insert the BowTie HD.
5. Install the BowTie HD (with hammer off) into and through the first and second joists (and third joist, if specified). When the BowTie HD is between joists, take care to avoid 'whip'.
6. Fit the sleeve over the tie and push it to the back of the hole in the masonry with the BowTie Injection Tube.
7. Inject Helifix PolyPlus resin into the hole to fill it completely.
8. Allow the resin to gel (normally 15 to 20 minutes).
9. Make good all holes at the surface with brick dust or matching mortar or leave ready for any decoration.

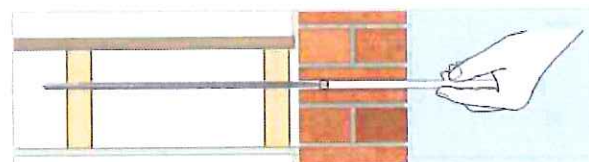
**NB** With a cavity wall, install 4 additional cavity wall ties in a 300mm square around the BowTie HD.



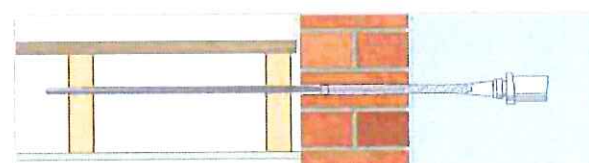
1. Mark the position of the joist centre on the external wall and then drill a clearance hole (normally 16mm) through the wall. Clean out the hole



2. Fit the BowTie HD Support Tool to an SDS rotary hammer drill, insert the BowTie HD and drive it (off hammer) into, and through, the first and second joists



3. Fit the plastic sleeve over the BowTie HD and use the support tool to push it to the back of the hole in the wall (outer leaf in a cavity wall)



4. Inject PolyPlus resin to fill the hole and bond the BowTie HD to the masonry, allow the resin to gel and then make good

## Technical Specifications

Material:	Austenitic stainless steel Grade 304 (1.4301)
Diameter:	12mm
Length:	Thickness of the wall + any cavity + sufficient to drive into the second parallel joist (or third where specified)
Standard lengths:	1m and 1.5m – in packs of 5
Diameter of masonry clearance hole:	16mm
Fixing density:	Maximum horizontal spacing of 600mm between BowTies
Bonding agent (near leaf only):	PolyPlus polyester resin
<b>RECOMMENDED TOOLING</b>	
For drilling clearance holes and insertion of BowTie HDs:	SDS rotary hammer drill 650/700w with hammer-stop
For installation of BowTie HDs:	BowTie HD driver
For injection of PolyPlus resin:	Applicator gun

**HELIFIX**

SUSTAINABLE STRUCTURAL SOLUTIONS

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[www.helifix.co.uk](http://www.helifix.co.uk)

April 2013