

Royal Exchange HPA

Appendix 8.10



AVISON
YOUNG

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Buttress

Buttress Architects Ltd.
41 Bengal St.
Manchester
M4 6AF

T: 0161 236 3303
W: www.buttress.net



Contents

1.0	Access Scaffolding & Temporary Roofs	5
2.0	Masonry Repairs	8
3.0	Glazing	12
4.0	Lime Mortar & Plaster	14
5.0	Masonry Cleaning	17
6.0	Roof Repairs	20
7.0	Ceiling Repairs	23
8.0	Re-Decoration	26
9.0	High Quality Joinery	30
10.0	Electrical Installations	33
11.0	Partitions	36
12.0	Pavement Lights Repair & Replacement Specification	39

1.0 Purpose of this Specification

This specification is to be read in conjunction with the Royal Exchange Heritage Partnership Agreement (HPA) and is written for the purpose of agreeing materials and workmanship for works covered by the agreement. It is not a specification for further works which require consent and should only be used for the purpose for which it was written.

The clauses within this report must not be used in isolation to detail works to be carried out on the Royal Exchange. They are used to establish the materials and workmanship to be agreed as part of the HPA and must not be used as a specification for repair, which will, if needing the supervision of an accredited conservation architect or surveyor require separate listed building consent. It should be noted that such works may also need Building Regulations Approval. Builders should not be allowed to work on the building unless the scope of their work has been agreed with the Managing Agent and this report should not be given to them as a specification.

Detailed works should follow a condition survey, or designs for an intervention and be supported by draw design information. This specification should then be supplemented by additional clauses for works beyond the scope detailed here.



1.0

Access Scaffolding & Temporary Roofs

1.0	Design	2.0	Proposals	3.0	Programme	4.0	Erection Requirements	5.0	Supervision	6.0	Security
1.0.1	The design of all scaffolding will be the responsibility of the Contractor and is to be in accordance with the recommendations of BS 5973: 1990 “Code of Practice for access and Working Scaffold and special scaffold staircases in Steel” or as updated.	2.0.1	The Contractor is to submit his proposals for the scaffold on or before the date for possession and not less than 7 days before commencement of the scaffold.	3.0.1	Prior to commencement of any scaffolding the Contractor shall submit a programme indicating the commencement date, and completion date.	4.0.1	All scaffold tubing and fittings are to be galvanised and in good condition and free from corrosion. Rusty components will not be accepted.	5.0.1	The Contractor is to exercise care in supervising the erection and dismantling of the scaffold to ensure that no damage occurs to the fabric of the building.	6.0.1	Access to the scaffold is to be via a single point of entry and a lockable door through the barrier described above. The single point of entry is to be protected by CCTV with a video recorder and tapes retained for 14 days.
1.0.2	Compliance with the various Acts and regulations listed in BS 5973 is the responsibility of the Contractor.	2.0.2	The Contractors proposals are to include clear drawings and structural calculations in duplicate sufficient to prove the stability of the proposed temporary structures in accordance with BS 5973 : 1990. Drawings will be provided to the Managing Agent and the Structural Engineer.	3.0.2	Prior to striking the scaffold the contractor will submit a programme indicating the period for dismantling for each area of scaffolding.	4.0.2	No steel component (including capped tubes) is to be in contact with the fabric of the building except where specific approval has been given.	5.0.2	It should be noted that in many instances damage to the historic fabric cannot easily be rectified. Any damage due to the scaffold use, erection or dismantling will be rectified at the Contractors expense.	6.0.2	Ladders to the lower lifts are to be removed at night.
1.0.3	Compliance with all aspects of Health and Safety during erection, using and dismantling is the responsibility of the Contractor.	2.0.3	These drawings will clearly indicate positions where any scaffold is to be tied back to the fabric of the building.	3.0.3	Scaffold is required for inspection purposes prior to confirmation of scope of the work and the Contractor is to indicate this period on his programme and ensure that his proposals are submitted early enough to ensure that this period is not compromised.	4.0.3	Where it is necessary to brace the scaffold from the masonry then timber packing of a minimum thickness of 20mm is to be placed between the scaffolding and the masonry.	5.0.3	Any area of scaffold not complying with items 04.01. to 04.0.7 above will not be used for any purpose.	6.0.3	Any areas which may be accessible from adjoining structures, roofs, etc. are to be similarly protected by boarding or by other approved means.
1.0.4	The design of the scaffold is to take account of the requirements of all trades which will require access, use as a working platform or storage. No claims will be entertained for additional scaffold or for amending scaffold already erected to suit the requirements of trades contained within the specification.	2.0.4	No scaffolding shall be commenced on site until the proposals have been submitted and agreed with the Managing Agent/Structural Engineer. Agreement of the Contractors proposals does not relieve the Contractor of his responsibilities to ensure full compliance of all requirements.	3.0.4	The programme is to take account of all the requirements of the sub-contractors who require the use of the scaffold.	4.0.4	No scaffolding shall rest on any roof coverings unless agreed in writing prior to commencement.				
1.0.5	The design of the scaffolding will consider the requirements of the Structural Engineer and the possible requirements for facade restraint.					4.0.5	The ends of ALL scaffold tubes are to be protected with plastic caps which are to be fitted prior to delivery to site. Where it is necessary to cut scaffold tubes during erection the end is to be re-capped immediately.				
						4.0.6	Scaffold tubes are not to encroach within 200mm of the surface of the building except where required for support or stabilising. This is to prevent accidental damage to the fabric by minor movement of the scaffold.				
						4.0.7	Where it is necessary to brace scaffold through window or door openings the existing finishes are to be protected with 20mm thick timber packers both internally and externally. The opening is to be boarded up with access only for the scaffold tubes.				

7.0 Protection

- 7.0.1

The covering to pavements is to be double boarded with Visqueen between.
- 7.0.2

The contractor is to satisfy all the requirements of the Local Authority and Highways department.
- 7.0.3

All surfaces at ground level are to be suitably protected to prevent the scaffold damaging existing external finishes.
- 7.0.4

Where internal scaffold is to be erected full protection will be required under all scaffolding except with prior written consent.
- 7.0.5

Ensure any Architectural features or areas prone to damage are suitably protected.
- 7.0.6

Where protection measures are considered inadequate the Contractor will at his own expense provide additional protection as agreed with the Managing Agent.
- 7.0.7

All entrance doors, fire exits etc. are to be kept clear of obstructions and are to be lined at the top and both sides to protect the public/building users.
- 7.0.8

All scaffolding at ground floor level is to be boxed in to a height of 2400mm min and decorated to a scheme approved by the Managing Agent.

8.0 Dismantling

- 8.0.1

Ensure all necessary care is taken to ensure that no damage occurs to the fabric of the building.
- 8.0.2

Scaffold tubes should be carefully lowered to ground level and not thrown or dropped.
- 8.0.3

No dismantled components shall be left on site outside working hours.

9.0 Certificates

- 9.0.1

Copies of all handover certificates issued by the scaffolding sub-contractor shall be forwarded to the Managing Agent upon receipt by the Main Contractor.
- 9.0.2

Copies of all test certificates for hoists shall be forwarded to the Managing Agent on receipt by the Main Contractor.
- 9.0.3

No scaffolding shall be used unless handover certificates and test certificates have been issued.

2.0

Masonry Repairs

1.0 Materials

1.1 Stone

- 1.1.1

Stone is to be selected to match existing in texture and colour. Wherever possible stone is to be obtained from the original quarry.
- 1.1.2

Representative samples shall be provided for final selection. Samples should be weathered samples from all areas of the quarry currently being exploited as there may be colour/texture variations between beds within the quarry. Where dressed stone is to be used then samples of new stone with a dressed face shall also be provided for approval. Whilst provisional orders may be placed no confirmation shall be issued until samples have been approved by the Managing Agent.
- 1.1.3

All stone shall be free from vents, cracks, fissures, mineral veins, discolouration and clay pockets. No stone for the project should contain any defect which will adversely effect the strength or appearance of the stone.

1.2 Dowels and Cramps

- 1.2.1

All dowels and cramps are to be as manufactured by Ancon Clarke Ltd., Olive Grove Road, Sheffield. S2 3GB and are to be manufactured in austenitic stainless steel to B.S. 1449 Part 2 1983. Typical details for cramping are contained in the appendix to the specification.
- 1.2.2

Bronze cramps may also be used subject to prior written approval.

1.3 Resin

- 1.3.1

All resins shall be approved in writing before use. The Contractor is to supply full technical details of proposed resins with their tender or where the work is additional to the contract, not less than 2 weeks before intended use.

1.4 Water

- 1.4.1

Water for the works shall be clean and fresh without pollutants. Where existing water supply is available within the building this may only be used with the Employers permission. In other cases a lockable stand pipe shall be erected to the approval of the local water authority.

1.5 Mortar

- 1.5.1

Lime mortar as specification for lime mortar written elsewhere.

2.0 Inspection & Drawings

2.1 Access

- 2.1.1

In any project involving masonry repairs the tender drawings will have been prepared from visual inspection, usually without the benefit of access scaffold. The Contractor is to allow in his programme a period of 2 weeks for confirmation of the scope of the works to each area after the completion of the access scaffold to that area of work.
- 2.1.2

The Contractor is encouraged to be represented during the inspection in order that he may contribute in any discussion regarding alternative methods of repair.

2.2 Notice

- 2.2.1

The Contractor is to give 48 hours notice to the Managing Agent of the completion of the access scaffold to each area.

2.3 Confirmation

- 2.3.1

Confirmation of the scope of the work will be the issue of revised drawings and confirmed by a Contract Instruction following completion of the inspection from the access scaffold.

2.4 Scaffold

- 2.4.1

The Contractor shall ensure that all access scaffold is complete and in accordance with the specification and that handover certificates have been issued before inviting inspection. Inspection will not be carried out if the scaffold is not in accordance with the specification.

2.5 Drawings

- 2.5.1

In most cases all working drawings will be provided by the Managing Agent. Where fabrication drawings are required to be prepared by the Contractor for specialist areas the Contractor shall submit duplicate copies of the drawings at least two weeks before confirmation of the order for the stonework is required. No cutting of the stonework shall commence until the drawings have been approved in writing by the Managing Agent.

3.0 Protection, Storage & Cleaning

3.1 Protection of Work Area

- 3.1.1

Where large areas of masonry repairs are to be undertaken the scaffold is to be fully protected using a translucent non combustible sheet such as Monaflex fixed to the outside of the scaffold.

3.2 Protection of the Fabric

- 3.2.1

Any existing windows are to be protected with ply or particle board in the areas adjacent to any area of work. Other features identified on the drawings are to be protected from damage.
- 3.2.2

Where scaffold is erected internally or where scaffolding penetrates through into the building internal fittings shall be adequately protected.

3.3 Storage

- 3.3.1

Stone should be stored in stacks on battens protected from moisture and freezing. Adequate care is to be taken to ensure that no damage occurs to the stone during storage or handling.

3.4 Lifting

- 3.4.1

The Contractor shall provide adequate lifting gear to unload and handle stones into position.

3.5 Storage on Scaffolding

- 3.5.1

Only stone for immediate use shall be stored on the scaffold.

3.6 Protection of Finished Work

- 3.6.1

Cover arises, moulds, carving and other finished work to protect from accidental damage. Protection is to be maintained until completion of all work in that vicinity.

3.7 Cleaning of Work

- 3.7.1

Keep facework clean and free from staining at all times.
- 3.7.2

Clean off and rub down all stonework as scaffold is taken down.

4.0 Laying of Stone

4.1 Natural Bed

- 4.1.1New stonework shall be prepared such that the natural bed is:
- A. Horizontal for plain walling works.
- B. Vertical and at right angles to wall face for cornices and other projecting stones.
- C. Horizontal in quoin stones or end stones. These shall be specially selected to ensure that they are compact non laminated stones.
- 4.1.2Further bedding details are contained in B.R.E. publications for the relevant type of stone. These are summarised in diagrammatic form in the appendices.

4.2 Bedding

- 4.2.1All stones shall be laid on a full and even bed of lime mortar as specified elsewhere based on “coarse stuff”.

4.3 Joints

- 4.3.1Horizontal and vertical joints are to match the existing joint size unless instructed differently by the Managing Agent.

4.4 Face

- 4.4.1Stones are to be placed such that their face is flush with the plane of the original stonework. Where new stone is being inserted adjacent to old worn surfaces the new stone shall be set to the face of the nearest unworn surface.

4.5 Workmanship

- 4.5.1All work shall comply with the general recommendations of B.S. 5390 section 5 Work on Site.
- 4.5.2Mason repairs are to be undertaken only by an approved stone mason who is a member of The Heritage Contractors Section of the Stone Federation. Non registered companies or unqualified personnel will not be permitted to work on site.

5.0 Repairs to Stonework

5.1 General

- 5.1.1All repairs will be identified during the inspection and will be indicated on the drawings.
- 5.1.2All areas for repair are to be marked up from the drawings on site by the Contractor and agreed with the Managing Agent prior to commencing cutting out.

5.2 Repair Techniques

- 5.2.1Repairs to stonework will be one of the following as noted on the drawings.
- A. Full block replacement.
- B. Part block replacement.
- C. Full face replacement.
- D. Partial face replacement.
- E. Carved work replacement.
- F. Carved item replacement.
- G. Indent repair.
- H. Crack injection/resin repair.
- I. Redressing.
- Each repair technique is described below.

5.3 Cutting Out

- 5.3.1Cutting out decayed stonework to permit new stones of the specified depth for the appropriate repair to be inserted. Cutting out can be carried out by mechanical means provided that extreme care is taken to ensure that the adjoining stones are not damaged. The stones should be cut to the central sections only by mechanical means ensuring

that the perimeter is undamaged. The stone is then to be cut back by hand to the required depth.

- 5.3.2In certain areas previous plastic repairs may have to be removed. In this case the Contractor should note that the plastic repair may be harder than the original stonework and great care is to be exercised to ensure no unnecessary damage occurs to the existing stone.

5.4 Temporary Support

- 5.4.1Stonework above the course being cut out or dressed back shall be fully supported during the course of the works. Support should be by adequately sized timber props secured and wedged. Care should be taken to ensure that no damage is caused by the props to the adjoining stonework.

5.5 Existing Ferrous Cramps

- 5.5.1Where iron cramps are encountered during the course of the works they are to be brought to the attention of the Managing Agent. Unless instructed otherwise they are to be removed and replaced with non ferrous cramps.

5.6 Cleaning Out

- 5.6.1All areas cut out to be cleared of debris mortar etc and washed clean. Care is to be taken not to saturate the stone.
- 5.6.2Any defects noted in the stone after cutting back or in the masonry backing are to be reported to the Managing Agent.

5.7 Moistening

- 5.7.1Wherever new masonry is to be inserted the adjoining stones are to be moistened to ensure that the mortar does not “snatch”. Do not saturate the stone.

6.0 Whole Block Replacement

- 6.7.1All whole block replacement is NOT covered by the HPA. It is to be fully detailed and requires Listed Building Consent.

7.0 Replacement of Part or Full Block

7.1 Preparation

- 7.1.1The existing stone block is to be cut out to an agreed line or as shown on the drawing to its full depth. The remaining edge of the block is to be hand dressed to form a new arris ensuring that the adjoining stones are not damaged in any way for ashlar work. The arris is to be formed perfectly plumb and true and at right angles to the face of the block. The backing masonry is to be inspected and any defects reported to the Managing Agent. The backing masonry is to be drilled to receive resin anchors and the adjoining stones drilled to receive dowels.

7.2 Installation

- 7.2.1New stone is to be bedded in mortar (as specified elsewhere) and cramped and doweled in position as detailed below.

8.0 Full-Face Replacement

- 8.2.1All full-face replacement is NOT covered by the HPA. It is to be fully detailed and requires Listed Building Consent

9.0 Partial-Face Replacement

9.1 General

9.1.1 All partial face replacements over the size of 150mm in any dimension will require Listed Building consent and are not covered by the HPA.

9.1.2 Where the stone is of sufficient thickness a 100mm indent repair is to be used. This repair may not be used on stone less than 200mm thick and in circumstances where the existing stone thickness varies the Contractor is to inform the Managing Agent when the remaining thickness of the stone after removal of the face is less than 100mm.

9.2 Preparation

9.2.1 The existing block is to be cut back to a as agreed with the Managing Agent or as indicated on the drawings to a depth of 100mm from the face of the surrounding stonework. A new arris is to be formed by hand in the position agreed for ashlar work. The arris is to be plumb and true and square to the face of the stone.

9.3 Installation

9.3.1 The existing stone is to be drilled to receive resin anchors and the adjoining stones drilled to receive dowels.

9.3.2 New stone slab is to be bedded in lime mortar as specified elsewhere and cramped and doweled in position as detailed below. The mortar bed is to be kept back 25mm to allow for pointing.

10.0 Carved Work Replacement

10.3.1 All new carved stonework is NOT covered by the HPA. It is to be fully detailed and requires Listed Building Consent

11.0 Carved Item Replacement

11.3.1 All new carved stonework is NOT covered by the HPA. It is to be fully detailed and requires Listed Building Consent

12.0 Indent Repairs

12.1 General

12.1.1 Cut out area of stone identified to a depth of 50mm for indents of 100mm, 65mm for indents up to 150mm and 75mm for indent repairs to a maximum of 300mm.

12.1.2 All indents over the size of 150mm in any dimension will require Listed Building consent and are not covered by the HPA.

12.2 Preparation

12.2.1 Carefully form neat arrises to all sides ensuring that no damage occurs to the adjoining stones. Carefully square off the back of the recess and clean out all debris, mortar etc.

12.3 Installation

12.3.1 New stone is to be inserted on a bed of resin with arrises tight to the original stone. Joint thickness to the original arrises of the block are to be consistent with the original mortar joints.

12.3.2 Ensure that resin is kept back from the mortar joint positions by 25mm to facilitate later pointing.

12.3.3 Indent repair is to be fully supported until the resin has cured.

13.0 Plastic Repair

13.1 General

13.1.1 Plastic repairs will normally not be used except in special circumstances. It is essential that any plastic repair is correctly carried out to avoid damage to the adjoining stonework. It is intended that plastic repairs are used to fill holes of less than 25mm diameter.

13.2 Preparation

13.2.1 Decayed and damaged stone is to be cut back to a minimum depth of 25mm from the face of the original stonework, or until sound stonework is located whichever is deeper. All loose material debris and mortar is to be removed and the recess thoroughly cleaned. The recess is to be rinsed in clean water.

13.3 Installation

13.3.1 Repair is to be carried out using a plastic mortar consisting of lime and stone dust. Samples of repair mortar are to be prepared and approval obtained prior to commencement of repairs. The mix is to be adjusted to ensure that, when dry, the mortar matches the existing stone in colour and texture. The mortar mix should be softer than the stone to avoid future damage.

13.3.2 Stainless steel reinforcement is to be secured with resin into the recess and the resin allowed to cure before commencing the repair.

13.3.3 Moisten the recess and build up in maximum 10mm thick layers of repair mortar, to the required depth allowing each layer to cure before applying the next. The last layer shall be finished to profiles to match the adjoining stone.

14.0 Crack Injection

14.3.1 All crack injection to stonework is NOT covered by the HPA. It is to be fully detailed and requires Listed Building Consent

15.0 Redressing

15.3.1 All redressing to stonework is NOT covered by the HPA. It is to be fully detailed and requires Listed Building Consent

3.0

Glazing

1.0 Documentation & Recording

- 1.0.1 All conservation work to the building, including the glazing to timber windows is to be fully documented in the following formats.
 - Written word
 - Digital photographs
 - Diagrams, drawings or rubbings.
- 1.0.2 The documentation system is an important part of the conservation process and dependent up on the importance of the glazing is to be structured and detailed accordingly. The document should satisfy all the pre and post conservation criteria’s making provision to include visual evidence of ongoing conservation.
- 1.0.3 All recording is to be carried out on site and in the work shop and all details are to be collated into a single Restoration and Conservation Report.
- 1.0.4 Associated materials such as ferramenta, (metal work) timber frames and masonry surroundings are to be inspected and documented as necessary.

2.0 On Site

- 2.0.1 All major On Site work especially all scaffolding activities are to be carried out according to this specification. For all small works (off ladders or quick assembly work platforms) the General Health & Safety Requirements applies which can be transferred without naming the specifying site.
- 2.0.2 On Site work includes processes such as removal and fitting of windows, transportation of windows and equipment from and to site and on site recording and documentation. In situ and stopping repairs are also classed as on site work.
- 2.0.3 In situ repairs or stopping work are all processes which include minor restoration work and include:
 - Changing single pieces of plain glazing which are missing or broken.
 - Attending to small areas of damage, such as missile damage or attempted vandalism.
 - Putty repairs.
 - Treatment of ferramenta and support mechanism. (tie bars, copper ties, etc.)
 - Re-pointing.
 - Attending to minor damage of the associated materials.
 - Making secure small areas which might endanger the public.
 - Making small areas within window weather tight.

3.0 Cleaning

- 3.0.1 It is the policy to keep all windows clean. The reason glass is to be cleaned is to encouraging more luminosity or legibility.

4.0 New Insertions & Replacements

- 4.0.1 New insertions of glass may be introduced into a window on the following bases:
 - To fill missing areas.
 - To stabilise the surrounding glazing.
 - To return legibility back to the overall design scheme.
 - To make the window weather tight.
 - To exchange poor quality previous repairs
 - To replace unstable and fragile original glass.
- 4.0.2 The aim is to insert new areas using glass wherever possible.
- 4.0.3 Replacement pieces and new insertions are replaced with modern glass and paints of similar colour, tone and weight to match the original. All new painted and surface treated insertions have to be documented. The aim is not to create a deception to the viewer but the insertion should be executed in a manner as close as possible to the original glazing.

5.0 Domestic Windows

- 5.0.1 All glazing within timber casements and sashes is classed as domestic glazing. This includes:
 - plain glazing within sliding sash Windows or opening metal frames windows.
 - glass within doors and openers.
 - all fixed framed windows.
 - all glass within a fixed masonry surrounding.
- 5.0.2 Generally all plain glass which is to be replaced must be exchanged on a like for like bases. It is important to keep to the current glazing scheme and that glass is replaced with panes which have a surface movement within the glass.
- 5.0.3 The Managing Agent in the first instance will decide if a specialist glazier has to be contacted to deal with a specific glazing task which is outside the capability of the sub-contractor. i.e. safety & security glazing, polished edges, laminates, etc.

4.0

Lime Mortar & Plaster

1.0 Hydraulic Lime Mortar	1.2 Fine Aggregates	1.3 Weather & Protection	2.0 Lime Plaster to Masonry Substrates	approved natural fibre from an approved supplier, well beaten in to an even distribution, free of lumps and clumps. Hair NOT to be applied to finish coat.	2.3 Application
1.1 Materials			2.1 Materials		
1.1.1 Mortar to constitute 1 part Lime : 1 part soft sand : 1 part grit sand : ½ part well graded grit aggregate (from 5mm down to 75 microns) using a moderately hydraulic Lime (St. Astier NHL 3.5 or similar approved).	1.2.1 All sand shall be to B.S. 1200, well-graded non-staining clean sharp coarse sand, uncontaminated by clay/silt. Sand shall be selected so that when the mortar has dried out the colour will match the colour and texture of the original mortar, unless instructed otherwise in writing by the Managing Agent.	1.3.1 No work involving the preparation of mortar or the laying of stonework shall be undertaken when the temperature is 5 degree centigrade falling or below 4 degrees centigrade when the temperature is rising.	2.1.1 Natural Hydraulic Lime to BS EN 459-1 2001, from an approved UK source and to be from one of the following suppliers.	2.2 Preparation	2.3.1 Application is to take place in three coats.
1.1.2 Suppliers to be consulted for variations in aggregates to achieve required distribution and colour.	1.2.2 For work requiring very fine joints in the masonry sand grain size may impede filling the joints. In these instances, fine stone dust or brick dust should replace the sand as the fine aggregate.	1.3.2 All work is to be protected from the frost and rain with hessian sheets for a minimum of 7 days or until the mortar has cured if longer.	A. Whitford Sand Lime & Mortar Co Bedw, Whitford Road, Holywell Clwyd, CH9 9AE Tel. 01352 - 714144	2.2.1 Rake out mortar joints to a depth of 10mm as necessary.	2.3.2 Undercoat – apply render coat to dampened down and prepared surface. Render coat is to be reinforced with hair well beaten in, at a rate of 4.5 kg/m³. Coat to be nominally 10mm thick and no more than 20mm thick. Undercoat is to be cross keyed with a lath scratcher to form a pattern of 25mm – 35mm diamonds. Dampen down before application of next coat.
1.1.3 Mixing and usage to be strictly in accordance with supplier’s recommendations.	1.2.3 Suppliers of lime to be consulted on suitability of sands proposed. Ideally sand to be obtained from the supplier of the lime.	1.3.3 In warm weather the work is to be similarly protected with hessian sheets which should always be kept moist to avoid curing occurring too quickly.	B. Rose of Jericho Kettering, Northamptonshire, Tel. 01536-73439	2.2.2 Re point any deep recesses using a weaker mix of Natural Hydraulic Lime mortar than that specified for the render. (NHL 3.5 1:3 ratio with 2.5mm down well graded aggregate and sharp sand)	2.3.3 Float Coat – apply over the Undercoat after it has been allowed to fully set (allow 3-4 days). Float coat to be nominally 6mm thick. Float coat to be keyed with a devils float. Check for shrinkage over the first 2 days curing. If any shrinkage cracks appear, dampen down, scour back and re-key to the affected area. Dampen down before application of next coat.
1.1.4 Hydraulic Lime or pre-mixed hydraulic lime mortar may be obtained from:		1.3.4 Any work affected by the weather is to be cut out and replaced at the Contractor’s expense.	C. Bleaklow Industries Limited Hassop Avenue, Hassop, Bakewell, Derbyshire, DE45 1NS Tel. 01246-582284	2.2.3 Thoroughly clean down the substrate to ensure all loose particles and dirt are removed.	
A. Womersley Associates Walkley Lane, Heckmondwike WF16 0PG Tel : 01925 400651 Fax : 01924 403489			D. Railton Price Ltd The Old Farmhouse, 21 Park Street, Winterton, North Lincolnshire, DN15 9UB Tel: 01724 737248	2.2.4 Thoroughly dampen down the substrate before application.	2.3.4 Finishing Coat – apply over the Float Coat after it has been allowed to set for 3-7 days to achieve a smooth finish and finished using a wooden float, to be nominally 3mm thick. No hair required in Finishing Coat.
B. Wenlock Lime Ltd The Coats Kiln, Stretton Road Much Wenlock, TF13 6DG Tel : 01925 728611 Fax : 01925 728361			E. Wormesley's Ltd Walkley Lane, Heckmondwike, WF16 0PG	2.2.5 For particularly indented substrates, provide a dubbing out coat of NHL 5 in a 1:1.5 - 2 ratio using a 4mm down well graded aggregate.	2.3.5 Apply all renders firmly to exclude any air and excessive moisture. Suction to be carefully controlled at all times.
C. Telling Lime Products Limited Primrose Avenue, Fordhouses Wolverhampto, WV10 8AW Tel : 01902 709777 Fax : 01902 398777			F. Lincolnshire Lime Co. Northfield Farm, Dam Lane, Thornton Curtis, North Lincolnshire, DN39 6XN Tel: 01469 531227		2.3.6 Re-work coats as necessary to control shrinkage and to achieve a smooth finish in the Finishing Coat.
			2.1.2 All sand shall be to BS 1200, non-staining clean sharp coarse sand. Sand shall be selected so that when the mortar has dried out the colour will match the colour and texture of the original mortar, unless instructed otherwise in writing by the Managing Agent. Aggregate / Sand to be sourced from a local quarry to the satisfaction of the Managing Agent.		
			2.1.3 Hair to be horse hair or other		

2.4	Weather & Protection	2.5	Plaster / Render Mixes	2.6	Sample Panels	2.7	Additives	2.8	Water
2.4.1	Plasters / Renders made from lime as below to be protected from frost, heavy rain, strong wind or direct sun for a minimum of: - NHL 5 48 hours NHL 3.5 72 hours NHL 2 96 hours	2.5.1	Hair Reinforcement - 4.5kg/m ³ horse hair	2.6.1	Provide a minimum of 2no. 1m x 1m sample panels in locations to be agreed with the Managing Agent, to be fully representative of the likely finished product.	2.7.1	Under no circumstances will the addition of any additives to the plaster be permitted.	2.8.1	Water from the works shall be clean and fresh without pollutants. Where existing water supply is available within the building, this may only be used with the Employers permission. In other cases a lockable stand pipe shall be erected to the approval of the local water authority.
2.4.2	Protect using a Hessian sheet, dampened down as necessary.	2.5.2	Render Coat NHL 3.5 1:1.5 ratio, 4mm down well graded aggregate, sharp sand. Hair Reinforcement - 4.5kg/m ³ horse hair.	2.6.2	Sample panels to utilise representative materials, to show potential variation in aggregate / sand as agreed with the Managing Agent.				
2.4.3	Apply frost protection if there is any likelihood of frost occurring. Work should not start in frost conditions or with temperatures at 5°C and falling or at 4°C and rising. In working with NHL 2 or in rendering with fine finishing coats, this should be 8°C.	2.5.3	Scratch Coat NHL 3.5 1:2 ratio, 2.5mm down well graded aggregate, sharp sand. Hair Reinforcement - 4.5kg/m ³ horse hair	2.6.3	No further work to commence until sample panels are approved by the Managing Agent.				
		2.5.4	Finishing Coat NHL 3.5 1:2.5 ratio, fine aggregate to be agreed, sharp sand.						
2.4.4	Protection from drying winds or direct sun should be provided by using shading sheets or debris netting on scaffolding.								
2.4.5	Any work affected by the weather is to be cut out and replaced at the Contractor's expense.								

5.0

Masonry Cleaning

1.0	General Requirements	1.1	Health & Safety	1.2	Sample Panels	1.3	Protection	2.0	Removal of Organic Growth
1.0.1	The cleaning of masonry on any part of this project shall only be undertaken by experienced operatives who have regularly been engaged in, or specialise in restorative cleaning of external and internal masonry and shall produce references of such activity with the tender return. The sub-contractor shall be a member of the Stone Federation’s surface cleaning contractors.	1.1.1	The Contractor shall be responsible for ensuring that all products used and all procedures adopted comply in full with current Health and Safety requirements.	1.2.1	Although the basic cleaning method has been established there is a requirement for sample panels to be carried out to ensure that the Contractor is aware of the standard required. 3 sample panels of each substrate to be cleaned are to be carried out under the direction of the Managing Agent in locations previously agreed with the Managing Agent. Each sample panel will be approximately 1 square metre.	1.3.1	All surfaces not being cleaned shall be fully protected to ensure that no accidental over spray of cleaning occurs.	1.3.7	The Contractor is to allow for all protection. Where the Managing Agent considers the protection to be inadequate, the protection shall be augmented as directed at the Contractors own cost.
		1.1.2	Ensure that all operations carried out in such a way that they do not represent a risk to health and safety of the public or other operatives on site			1.3.2	Where different cleaning techniques are specified for adjoining surfaces the surfaces not being cleaned during either operation shall be fully protected.	1.3.8	Protection shall be inspected at the start of each working day to ensure its integrity. Any defects noted shall be rectified by the Contractor prior to commencement of work.
1.0.2	The operatives shall be fully conversant with the method of cleaning specified and have had previous experience and knowledge of the system. The operatives shall have attended training sessions on the use of all items of equipment or chemicals contained in the specification.			1.2.2	Sample panels will be executed prior to commencement of the works and will be carried out by experienced operatives who will be working on the project. The purpose of the sample panels is:	A.	Windows to be boarded up with ply and covered in heavy duty polythene securely taped at all edges.		
						B.	Painted surfaces not being redecorated shall be protected with heavy duty polythene and securely taped.	1.3.9	No cleaning operations shall commence until all protection is in place.
1.0.3	The scope of the work is clearly identified on the drawings and the tenderer is to visit the site to confirm for himself the difficulties in executing the work as specified and is to include for such within his tender.					1.3.4	Where cleaning is internal all fixtures and fittings which cannot be removed are to be fully protected. Statues and any areas of ornate carving are to be protected with ply box covers and heavy duty polythene.	1.3.10	No protection shall be removed until cleaning operations have been completed and have been inspected and approved by the Managing Agent. Protection is to remain in place until “snagging” items have been completed and approved.
1.0.4	No claim will be entertained for failure to appreciate the difficulties in executing the works.			1.2.3	Area around sample panels shall be protected as required for the main works.	1.3.5	Decorative ironwork is to be fully protected. Where ironwork would puncture polythene a protective layer of expanded polystyrene, foam or similar approved material is to be taped in position prior to installing heavy duty polythene which shall be fully taped.		
1.0.5	Except where the cleaning is let as a main contract all access scaffolding will be provided by the main contractor. The sub-contractor is to advise the main contractor of his requirements during the tender stage (if known) or immediately on nomination.								
1.0.6	Any alterations required to the scaffold to suit the sub-contractors needs arising out of his failure to inform the contractor in accordance with this clause will be charged to the sub-contractor.					1.3.6	Furniture and fixtures are to be protected against damage with ply or MDF boards and covered with heavy duty polythene fully taped. Where loose furniture is involved it may be moved to a central point(s) but will still require full protection.		
								2.1	Materials
								2.1.1	Biocide
								2.1.2	The biocide is to be Truchem Algae Remover 910 as manufactured by Structural Chemicals Limited, Dunston House, Dunston Road, Sheepbridge, Chesterfield, Derbyshire, S41 9QD.
								2.1.3	Where alternative proprietary biocides are proposed, they shall be based on a quaternary ammonium compound which is to be subject to the Managing Agents approval.
								2.1.4	The biocide should not contain calcium chloride, which will cause a build-up of soluble salts. Where there is any possibility of run off onto limestones then the biocide should not contain zinc or magnesium silicofluoride. Use only biocides with a current Health and Safety Executive number and approved by them for the purpose intended and shall comply with all current pesticide legislation.
								2.1.5	Confirmation of this is to be forwarded to the Managing Agent prior to commencement of the works.

2.2	Water	2.4	Protection	2.5	Health & Safety	2.6	Storage	2.8	Application	2.8.9	Allow the surface to absorb and carry out a second application of proprietary biocide as (2.8.7) above to prevent recolonisation of the cleaned stone.
2.2.1	Water for the works shall be clean and fresh without pollutants. Where existing water supply is available within the building this may only be used with the Employers permission. In other cases a lockable standpipe shall be erected to the approval of the local water authority.	2.4.1	Protect all flowerbeds, landscaped areas etc, with polythene sheeting prior to commencement.	2.5.1	Biocide should be one approved by the HSE Pesticide Registration Division.	2.6.1	Ensure all materials are stored in sealed containers clearly marked with their contents. Undiluted biocides should only be stored in the manufacturer’s original containers.	2.8.1	Treatment with biocides should not be undertaken during wet weather or immediately after prolonged periods of wet weather.		
		2.4.2	Do not spray near unprotected personnel and animals.	2.5.2	The Contractor shall be responsible for ensuring that all products used and all procedures adopted comply in full with current Health and Safety requirements.	2.6.2	Biocides should only be diluted in such quantities as can be used during the working day. Diluted biocides should not be stored overnight, but any surplus material at the end of the working day should be disposed of to the satisfaction of the Local Authority.	2.8.2	The air temperature should be above 5°C during application.		
		2.4.3	Ensure that pollution of waterways, drainage etc. does not occur as a result of treatment.	2.5.3	Contractor shall ensure all recommended Personal Protection Equipment be worn by his operatives.			2.8.3	Prepare a solution of quaternary ammonium-based biocide to the manufacturer’s specification.		
2.3	Equipment - Non ferrous soft wire brushes. - Knife blades. - Pneumatic garden spray with adjustable nozzle. - Rubber gloves. - Safety mask. - Safety goggles.			2.5.4	Ensure that all operations carried out in such a way that they do not represent a risk to health and safety of the general public or other operatives on site. Include for all temporary protection and carrying out work “out of hours” to minimise risks.	2.6.3	Any biocides stored on site shall be kept in securely locked areas with toxic hazard signs.	2.8.4	Fill a pneumatic garden-type sprayer two-thirds full with the diluted biocide. Adjust the nozzle to a coarse spray setting. There should be sufficient pressure at the wand nozzle, after pumping the container, to saturate the surface of the masonry without causing excessive ‘bounce back’ and spray drift.		
						2.7	Preparation				
						2.7.1	Remove as much plant growth, moss, lichens etc. with a knife blade and wire brush as necessary.	2.8.5	Apply a flood coat. Commence at the top of the vertical surface to be treated and move across horizontally and slowly to allow approximately 100mm run down. The next horizontal pass should be made across the previous run down.		
						2.7.2	Ensure that no damage is caused to the stone by the removal of plant growth. If any damage is encountered restrict removal to the removal of moss only.	2.8.6	Leave the treated area for a minimum of two weeks and a maximum of four weeks to allow the growth to die off. Brush off as much dead growth as possible with dry soft bristle brushes, making sure that any adjacent gutters and hoppers are kept clear.		
								2.8.7	Prepare a second solution of a proven long-lasting biocide to the manufacturer’s specification.		
								2.8.8	Fill a second pneumatic sprayer with the diluted biocide and apply in the same manner as (2.8.5) above.		

6.0

Roof Repairs

1.0	Temporary Roofs	2.0	Removal of Existing Roof Coverings	3.0	Programme	4.0	Inspection	5.0	Health & Safety	6.0	Storage of Materials
1.0.1	Temporary roofs should be erected over all areas where partial or total re-roofing works are to be undertaken. These should be in full compliance with the specification for scaffolding and temporary roofs.	2.0.1	Roof coverings to roofs identified for re-roofing are to be carefully removed to ensure no damage occurs to the existing roof deck or structure.	3.0.1	A detailed programme for the roofworks shall be submitted to the Managing Agent prior to any works being undertaken.	4.0.1	The contractor is to allow a period for inspection of the existing roof structure/decking after the removal of the roof coverings. A period of 7 days shall be allowed for each roof area for inspection and confirmation of instruction/repairs.	5.0.1	The contractor shall ensure that all necessary precautions are taken to ensure the safety of all operatives, site visitors etc. at all times.	6.0.1	Only limited use of scaffold or existing roof structure or roofs shall be permitted for the storage of materials.
1.0.2	Temporary roofs shall be a minimum of 2.5 metres clear of the existing roof covering to the underside of any scaffold/beam component of the temporary roof.	2.0.2	Existing slates are to be carefully removed and sound slates are to be stored for possible re-use.	3.0.2	The programme shall indicate the sequence of all work to each individual area of roof works and shall indicate the periods for erection of temporary roof, removal of roof coverings, inspection of the roof structure, repairs to the roof structure, remodelling of gutters, the recovering of roofs, removal of temporary roof together with all other associated works at roof level.	4.0.2	The contractor is to give the Managing Agent 2 working days notice prior to the roof structure being ready for inspection.			6.0.2	Materials should generally be stored at ground level in secure areas.
1.0.3	Temporary roofs should enclose all chimney stacks with sufficient clearance to ensure that any work specified to the chimney stack can be satisfactorily executed.	2.0.3	Unless stated otherwise existing lead coverings flashings and gutter linings etc. are to be removed. The credit for scrapped material is to be included within the contractors rates.							6.0.3	Only sufficient materials for the operatives to use in a working day should be brought to roof level.
1.0.4	Side sheeting to temporary roofs shall extend to below eaves level on the outside of any scaffolding.	2.0.4	No salvaged materials are to be stored on the scaffold or on the existing roof. Materials reclaimed for re-use are to be stored at ground level and protected from damage and theft.							6.0.4	Where materials are stored at roof level they should be distributed evenly to ensure existing structure or scaffold is not overloaded.
1.0.5	All temporary roofs shall be complete prior to any work commencing on the roofs.	2.0.5	Ensure all roof voids are kept clear of inflammable material and debris and that they are vacuumed clean of all dust on completion of the works.							6.0.5	Materials should not be stored on completed roof areas.

7.0 Repair & Replacement of Existing Timbers

- 7.0.1
- Once the existing coverings are removed the Managing Agent will inspect the timber structure and issue such instructions as are necessary with regard to the repair or replacement of any defective timbers.
- 7.0.2
- No defective timbers shall be removed until inspected by the Managing Agent even if these are identified for replacement on the drawings. The intention will generally be to retain as much of the original timber as possible.
- 7.0.3
- Where existing timbers are a softwood species replacement timbers shall be vacuum pressure impregnated timber of a section to match the existing. Timber treatment shall be carried out in strict accordance with British Standard. Timber shall be delivered to site with a moisture content no great than 20% and shall be stored in such a way that the moisture content is not increased prior to use.
- 7.0.4
- Treatment certificates are to be forwarded to the Managing Agent on receipt.
- 7.0.5
- All battens are to be replaced with new treated softwood battens to sections as specified elsewhere.
- 7.0.6
- All framework for concealed gutters shall be in treated timber. Gutters boards shall be formed from 75x25mm straight edged treated softwood.

8.0 Leadwork

- 8.0.1
- All leadwork shall be in accordance with the Lead Development Association recommendations and shall be carried out by an approved contractor who is a member of the Lead Contractors Association.
- 8.0.2
- Cast lead whether machine cast or cast by hand, shall not be used. All lead shall be milled to BS 1178.

9.0 Workmanship

- 9.0.1
- All work shall be carried out in accordance with BS 5534 part 1 and 2 “Code of Practice for slating and tiling” and BS 8000 : Part 6 “Code of Practice for Workmanship and Building Sites - slating and tiling”.

10.0 Materials

- 10.0.1
- Ensure all materials comply in full with the relevant British Standards as listed below.
 - BS 747 Specification for Roofing Felts.
 - BS 1178 Specification for Milled Lead Sheet for buildings.
 - BS 1202 : Part 2 and 3 Specification for Nails.
 - BS 4978 : Specification for softwood grades for structural use.

7.0

Ceiling Repairs

1.0	Preparation	2.0	Laths	3.0	Individual Bridge Reinforcement	4.0	Bulk Reinforcement	5.0	Repairs to Underside	6.0	Repairs To Details
1.0.1	The area below any proposed repair is to be protected with visqueen or similar taped to the skirting boards and overlaid with ply or MDF.	2.0.1	Where existing laths are spaced too close thus preventing adequate key for the plaster alternate laths are to be cut through and removed.	3.0.1	This method is to be used in areas where isolated laths have been removed or where small areas of plaster nibs have been lost.	4.0.1	This technique is applicable to areas when the fixings to the laths have become loose from the joists.	5.0.1	On completion of the reinforcement, cracks to underside of the ceiling can be repaired.	6.0.1	Where cornice or other embellishment has become loose, this is to be secured back to the timber structure with galvanised steel, copper or stainless-steel wire drilled through the features and secured to brass screws into the joists and recessed into the detail.
1.0.2	Remove insulation from ceiling void, carefully clean out all areas with soft brushes and hand held vacuum cleaner, ensuring that all areas are clean.	2.0.2	When existing laths are decayed these are to be cut out with a hacksaw blade and snapped off.	3.0.2	Old plaster and laths are to be thoroughly cleaned and treated with a thin coating of PVA solution (1 part PVA to 10 parts / water) in order to control suction and prevent rapid removal of water from the new plaster. From key to adjacent joists with 75mm brass screws left projecting 38mm from the joists.	4.0.2	Old plaster and laths are to be cleaned thoroughly and treated with a thin coating of PVA solution (1 part PVA to 10 parts water) in order to control suction and to prevent rapid removal of water from the new plaster.	5.0.2	Larger cracks should be carefully cut out with a sharp chisel or knife to form a dovetail key. All cracks shall then be cleaned thoroughly by hand vacuum cleaners or by air blasting. After cleaning the cracks should be cleaned by hand spraying with water.	6.0.2	Areas of damage are to be made good for completion with fibrous plaster where small sections of cornice are missing stainless steel wire reinforcement is to be installed and the detail “run in” with fibrous plaster.
1.0.3	Plaster key and laths are to be inspected and checked throughout the specified area. The contractor is to allow within his programme an appropriate period of time for detailed inspection by the Managing Agent to enable final instructions to be issued for the work.	2.0.3	In areas where ceiling has collapsed or is missing new laths are to be fixed with split or riven oak or hazel laths. These are to be 39mm wide with 10mm gaps between laths and are to be secured with stainless steel or copper wires. Laths are to be cut on joist lines with additional timber battens fixed to the side of the joists to enable ends of new and existing laths to be staggered, with existing laths re-nailed at the junction.	3.0.3	The area is to be filled with retarded superfine plaster of Paris.	4.0.3	Complete support to the area is to be provided by 6mm gauge stainless steel or copper mesh formed into troughs turned up the side of the joists	5.0.3	Fill material shall be a lime plaster to match the existing.	6.0.3	Larger such replacement of cornice etc are to be by pre cast fibrous plaster sections manufactured from moulds taken from the existing profiles.
1.0.4	Defective areas of ceiling are to be propped using felt pads on 12mm ply bearers on timber studding.					4.0.4	Retarded plaster of Paris is to be poured over the existing plaster and the mesh pushed into the initial thin coat prior to fixing via 25 x 38 treated softwood battens fixed with brass or stainless-steel screws to the side of the existing joists.			6.0.4	Loose details may be secured into the timber structure from below by brass screws and washers recessed into the detail with the surface made good.
1.0.5	Exceptional care is to be taken supporting areas around details particularly where papier maché work may be present.					4.0.5	A second coat of plaster is to be applied after the installation of the mesh tray but prior to the setting of the initial coat to give a total thickness of 15mm with a splayed fillet to the side of the joists.				
1.0.6	All timbers including joists and laths are to be inspected for decay by specialist timber preservation company and a report issued to the Managing Agent for consideration of further treatment.					4.0.6	Adequate setting time is to be allowed prior to the removal of any propping to the ceiling below.				
						4.0.7	In areas where plaster nibs have failed but the laths are secure. The above method may be used but substituting hessian instead of wire trays. The hessian is still to be secured by treated battens.				

7.0	Plaster	7.2	Lime Plaster gauged with Gypsum	7.3	Fine Aggregates	7.4	Lime Putty	7.5	Additives	8.0	Weather and Protection
7.1	Lime Plaster			7.3.1	All sand shall be to BS 1200, non-staining clean sharp coarse sand. Sand shall be selected so that when the mortar has dried out the colour will match the colour and texture of the original mortar, unless instructed otherwise in writing by the Managing Agent.	7.4.1	Lime putty shall be made from quick lime which has been freshly burned and properly slaked, run to putty and matured for not less than two weeks.	7.5.1	Under no circumstances will the addition of any additives to the plaster be permitted.	8.1	Cold Weather Working
7.1.1	Render coat lime plaster (9mm) 1 part lime putty 3 parts sand. Coarse stuff is to be reinforced with hair well beaten in, at a rate of 7 kg/m³. Render coat is to be cross keyed with a lath scratcher.	7.2.1	Render coat (9mm) 1 part gypsum, 1 part lime putty, 6 parts sand.							8.1.1	No work involving the preparation of plaster shall be undertaken when the temperature is 5 degree centigrade falling or below 4 degrees centigrade when the temperature is rising.
7.1.2	Floating coat (6mm) 1 part lime putty to 3 parts sand reinforced with hair as above. Floating coat to be keyed with a devils float.	7.2.2	Floating coat backing coat (6mm) 1 part gypsum, 1 part lime putty, 6 parts sand.			7.4.2	Prepared lime putty shall be obtained from one of the following:	7.6.1	Water		
		7.2.3	Setting coat finishing coat (3mm) 1 part gypsum, 1 part lime putty.			A.	Whitford Sand Lime & Mortar Co Bedw, Whitford Road, Holywell Clwyd, CH9 9AE Tel. 01352 - 714144			8.2	Protection
7.1.3	Setting coat (3mm); 3 parts lime putty to 2 parts sand setting coat is to be laid on with a laying on trowel, trowelled and floated and made compact by scouring with a cross grained wood float lubricated with water to prevent shrinkage cracking.					B.	Rose of Jericho Kettering, Northamptonshire, Tel. 01536-73439			8.2.1	All work is to be protected from the frost. In warm weather the work is to be similarly damped down to prevent curing occurring too quickly.
						C.	Bleaklow Industries Limited Hassop Avenue, Hassop, Bakewell, Derbyshire, DE45 1NS Tel. 01246-582284			8.3	Damage Due To Weather
						D.	Masons Mortar 61-67 Trafalgar Lane, Leith, Edinburgh Tel. 0131 5550503			8.3.1	Any work affected be the weather is to be cut out and replaced at the Contractor’s expense.
						7.4.3	Lime putty made from dry hydrate or an acetylene by-product (Lamotex) is not acceptable. Before ordering the contractor is to gain confirmation that the putty has been prepared from Quick Lime.				

8.0

Re-Decoration

1.0	Emulsion/Matt Paint		1.2.3	Existing plaster walls	1.2.5	Application	1.3	Colour	2.0	Eggshell/Gloss Paint	2.2.3	Metals
	Interior surfaces – Walls -Ceilings & Cornices.		1.2.4	Lightly wash to remove any dust or surface laitance from existing hard distemper finish. Soft distemper or modern emulsions must be completely removed before painting. Apply a primer coat by thinning with a 5 to 25% (v/v) addition of clean water, depending upon the porosity of the substrate. Finish by applying at least one full coat, as required. This product is recommended for painting previously painted lime or other natural plasters. This product is not recommended for painting over non-porous oil or vinyl-based systems.	1.2.6	Stir thoroughly before use. Product may be applied to slightly damp surfaces which can then subsequently dry out. Brushing: Use a high quality synthetic bristle brush that is suitably sized for the project at hand. New brushes should be conditioned by washing in clean water and thoroughly drying with a clean, lint free, cloth. Avoid immersing brush too far into the paint to prevent paint from entering the ferrule. Avoid drips and splashes by not overloading the brush. Apply paint in even strokes and only extend painting area such that a wet edge can be easily maintained. For the highest quality appearance, keep final brush strokes all in the same direction and never go over paint that has already begun to dry. Roller: Use a short nap wool blend type sleeve for best appearance on smooth surfaces. Increase nap length for textured surfaces, as appropriate, to ensure even and thorough coverage. Keep final strokes all in the same direction, maintaining a wet edge throughout. Never be tempted to go over already drying paint as this will lead to lap marking and flashing	1.3.1	Colours within the general circulation areas to be muted neutral tones from the white colour range.		Interior joinery surfaces – Skirting boards etc.	2.2.4	New ferrous metalwork should be hand, or mechanically cleaned, to remove any surface rust before application of Little Greene Traditional Oil Primer Undercoat. Non ferrous metals must be pre-treated or primed with an appropriate proprietary primer.
	1.1	Manufacturer:			1.4	Sample		2.1	Manufacturer			
	1.1.1	Little Greene. 3-5 Wood St, Manchester M11 2FB Tel: 0845 880 5855			1.4.1	Provide finish sample to be approved on site prior to decoration.		2.1.1	Little Greene. 3-5 Wood St, Manchester M11 2FB Tel: 0845 880 5855			
1.1.2	Product reference: Distemper Surfaces: Internal						2.1.2	Product reference: Intelligent Eggshell Surfaces: Internal			2.2.5	Existing paint finish
1.2	Preparation							2.2	Preparation		2.2.6	Remove all loose and flaking paintwork. Degrease with a suitable detergent solution, such as sugar soap, followed by clean water rinse. Rub down thoroughly with a medium grade sand paper to provide a key and a defect free smooth surface, “feathering in” areas where paint has been removed. Make good any repairs, sand and apply primer to exposed surface as appropriate. High sheen paint surfaces (such as vinyl silks) should be thoroughly sanded to provide a key, or use a proprietary all surfaces primer, prior to painting. Old matt paints exposed to high humidity conditions may have degraded over time and should be treated with a priming coat by thinning with a 20% (v/v) addition of clean water to ensure surface is bound and sealed.
1.2.1	New plaster walls											
1.2.2	For plaster skim, allow at least four weeks for the plaster to thoroughly dry. Apply a primer coat by thinning the paint with a 20 to 50% (v/v) addition of clean water, depending upon the porosity of the substrate. Cut in by brushing at the same dilution recommendation as for priming, to promote flow and sealing of the substrate. Finish by applying two full coats. For new, fully plastered walls, allow at least six months for the plaster to thoroughly dry before painting. This product is recommended for painting lime or other natural plasters.											
						- Initial coats: As recommended by manufacturer. - Undercoats: As recommended by manufacturer - Number of coats: 1. - Finishing coats - Number of coats: 2.						

2.2.7 **Plastics**

2.2.8 For long term performance, clean & lightly sand down surfaces. Prime using a proprietary adhesion promoting plastics primer before applying the finishing coat. New plaster walls: For plaster skim, allow at least four weeks for the plaster to thoroughly dry. Apply a primer coat by thinning the paint with a 5 to 25% (v/v) addition of clean water, depending upon the porosity of the substrate. Cut in by brushing at the same dilution recommendation as for priming, to promote flow and sealing of the substrate. Finish by applying two full coats. For new, fully plastered walls, allow at least six months for the plaster to thoroughly dry before painting with Little Greene Intelligent Eggshell.

2.3 **Application:**

2.3.1 NOTE: This product is not recommended for painting lime or other natural plasters.

- Initial coats: As recommended by manufacturer.
- Undercoats: As recommended by manufacturer - Number of coats: 1.
- Finishing coats - Number of coats: 2.

2.4 **Colour**

2.4.1 Colours within the general circulation areas to be muted neutral tones from the white colour range.

2.5 **Sample**

2.5.1 Provide finish sample to be approved on site prior to decoration.

3.0 **Floor Paint**

3.5.1 Little Greene. 3-5 Wood St, Manchester M11 2FB
Tel: 0845 880 5855

3.5.2 Product reference: Distemper
Surfaces: Internal

3.1 **Preparation**

3.1.1 New wood:

3.1.2 For soft woods, knots should be sealed with knotting compound to prevent staining. Apply one thinned coat (15% v/v with white spirit) to allow penetration into substrate, followed by the recommended two full coats. Resinous hard woods require cleaning and treatment with Little Greene Aluminium Wood Primer (consult the relevant product data sheets for further details). One coat of Little Greene Traditional Oil Primer Undercoat maybe required to prevent subsequent grin through of the aluminium wood primer when painted with light floor paint colours. Ensure moisture content of the timber is below 15% before commencing application. Damp wood should never be painted as this may give rise to blistering, flaking, cracking and premature coating failure. Green oak should not be painted unless it has been weathered for at least 6 months.

3.1.3 Metals

3.1.4 New ferrous metalwork should be hand, or mechanically cleaned, to remove any surface rust before application of Little Greene Traditional Oil Primer Undercoat. Non-ferrous metals must be pre-treated or primed with an appropriate proprietary primer.

3.1.5 **Existing paint finish**

3.1.6 Remove all loose and flaking paintwork. Degrease with a suitable detergent solution, such as sugar soap, followed by clean water rinse. Rub down thoroughly with a medium grade sand paper to provide a key and a defect free smooth surface, “feathering in” areas where paint has been removed. Make good any repairs, sand and apply primer to exposed surface as appropriate.

3.1.7 **Concrete**

3.1.8 Brush or vacuum clean surface to remove dust. If concrete has been power floated, the surface must be either vacuum blasted or treated with a proprietary acid etch solution, to produce a profile, prior to painting. Minor surface contamination, such as oil spots, maybe resolved through flame treatment. Thin the first coat with ~15% v/v white spirit to allow penetration into the substrate then apply two full coats. External concrete with an effective damp proof membrane maybe painted. However, in direct sunlight the surface will chalk noticeably over time.

3.1.9 **Natural stone**

3.1.10 Porous stone maybe treated as per instructions for concrete.

3.2 **Application**

3.2.1 NOTE: This product is not recommended for painting directly to non porous granitic masonry.

- Initial coats: As recommended by manufacturer.
- Undercoats: As recommended by manufacturer - Number of coats: 1.
- Finishing coats - Number of coats:

3.3 **Colour**

3.3.1 Colours within the general circulation areas to be muted neutral tones from the white colour range.

3.4 **Sample**

3.4.1 Provide finish sample to be approved on site prior to decoration.

4.0 **Eggshell Exterior Joinery**

Exterior joinery surfaces – windows etc.

4.4.1 Little Greene. 3-5 Wood St, Manchester M11 2FB
Tel: 0845 880 5855

4.4.2 Product reference: Tom’s Oil Eggshell (exterior)
Surfaces: exterior

4.1 **Preparation:**

4.1.1 **New wood**

4.1.2 For soft woods, knots should be sealed with knotting compound to prevent staining and then primed with Little Greene Traditional Oil Primer Undercoat or Little Greene Intelligent Primer Undercoat. Resinous hardwoods require cleaning and treatment with Little Greene Aluminium Wood Primer (consult the relevant product data sheets for further details) prior to undercoating. Ensure moisture content of the timber is below 15% before commencing application. Damp wood should never be painted as this may give rise to blistering, flaking, cracking and premature coating failure.

4.1.3 **Metals**

4.1.4 New ferrous metalwork should be hand, or mechanically cleaned, to remove any surface rust before application of Little Greene Traditional Oil Primer Undercoat. Non-ferrous metals must be pre-treated or primed with an appropriate proprietary primer.

4.1.5 **Existing paint finish**

4.1.6 Remove all loose and flaking paintwork. Degrease with a suitable detergent solution, such

as sugar soap, followed by clean water rinse. Rub down thoroughly with a medium grade sand paper to provide a key and a defect free smooth surface, “feathering in” areas where paint has been removed. Make good any repairs, sand and apply primer to exposed surface as appropriate. High sheen paint surfaces (such as vinyl silks) should be thoroughly sanded to provide a key, or use a proprietary all surfaces primer, prior to painting. Old matt paints exposed to high humidity conditions may have degraded over time and should be treated with a priming coat by thinning with a 20% (v/v) addition of clean water to ensure surface is bound and sealed.

4.1.7 **Plastics**

4.1.8 For long term performance, clean & lightly sand down surfaces. Prime using a proprietary adhesion promoting plastics primer before applying the finishing coat. New plaster walls: For plaster skim, allow at least four weeks for the plaster to thoroughly dry. Apply a primer coat by thinning the paint with a 5 to 25% (v/v) addition of clean water, depending upon the porosity of the substrate. Cut in by brushing at the same dilution recommendation as for priming, to promote flow and sealing of the substrate. Finish by applying two full coats. For new, fully plastered walls, allow at least six months for the plaster to thoroughly dry before painting with Little Greene Intelligent Eggshell.

4.2 Application

- 4.2.1
- NOTE: This product is not recommended for painting lime or other natural plasters.

 - Initial coats: As recommended by manufacturer.
 - Undercoats: As recommended by manufacturer - Number of coats: 1.
 - Finishing coats - Number of coats: 2.

4.3 Colour

- 4.3.1
- Colour to be ‘Clockface’ to all windows above ground floor level.

4.4 Sample

- 4.4.1
- Provide finish sample to be approved on site prior to decoration.

5.0 Eggshell Exterior Metalwork

- Eggshell exterior metalwork at roof level
- 5.4.1

Little Greene. 3-5 Wood St, Manchester M11 2FB
Tel: 0845 880 5855
- 5.4.2

Product reference: Tom’s Oil Eggshell (exterior)
Surfaces: Exterior

5.1 Preparation

- 5.1.1
- Metals**
- 5.1.2

New ferrous metalwork should be hand, or mechanically cleaned, to remove any surface rust before application of Little Greene Traditional Oil Primer Undercoat. Non ferrous metals must be pre-treated or primed with an appropriate proprietary primer.
- 5.1.3

Existing paint finish
- 5.1.4

Remove all loose and flaking paintwork. Degrease with a suitable detergent solution, such as sugar soap, followed by clean water rinse. Rub down thoroughly with a medium grade sand paper to provide a key and a defect free smooth surface, “feathering in” areas where paint has been removed. Make good any repairs, sand and apply primer to exposed surface as appropriate. High sheen paint surfaces (such as vinyl silks) should be thoroughly sanded to provide a key, or use a proprietary all surfaces primer, prior to painting. Old matt paints exposed to high humidity conditions may have degraded over time and should be treated with a priming coat by thinning with a 20% (v/v) addition of clean water to ensure surface is bound and sealed.

5.1.5 Plastics

- 5.1.6
- For long term performance, clean & lightly sand down surfaces. Prime using a proprietary adhesion promoting plastics primer before applying the finishing coat. New plaster walls: For plaster skim, allow at least four weeks for the plaster to thoroughly dry. Apply a primer coat by thinning the paint with a 5 to 25% (v/v) addition of clean water, depending upon the porosity of the substrate. Cut in by brushing at the same dilution recommendation as for priming, to promote flow and sealing of the substrate. Finish by applying two full coats. For new, fully plastered walls, allow at least six months for the plaster to thoroughly dry before painting with Little Greene Intelligent Eggshell.

5.1.7 Application

- Initial coats: As recommended by manufacturer.
- Undercoats: As recommended by manufacturer - Number of coats: 1.
- Finishing coats - Number of coats: 2.

5.1.8 Colour

- 5.1.9
- All external metalwork and associated painted finishes at roof level to be painted ‘Lamp Black’ (Dark Grey) throughout.

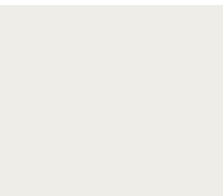
5.1.10 Sample

- 5.1.11
- Provide finish sample to be approved on site prior to decoration.

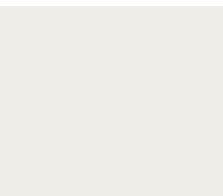
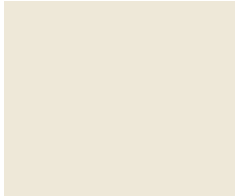
Royal Exchange HPA - Colour Palette

All Paints from the *Little Greene Paint Co.* in accordance with the 8.0 Redecoration Specification in Appendix 8.10. Please note the colours below are for illustration purposes only and are taken from the Little Greene website. Test samples of the paints should be used on site using the paints as specified to gain a true indication of the colours.

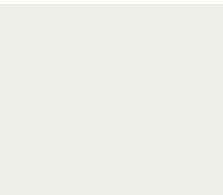
Internal Walls and Ceilings - Intelligent Matt Emulsion

				
Clock Face (81)	Joanna (130)	Clay Deep (154)	Clay Pale (152)	French Grey (113)

Internal Joinery - Tom’s Oil Eggshell

		
Clock Face (81)	Clay Pale (152)	Clay (39)

External Paint Colours

				
Clock Face (81) <i>Windows & Painted Joinery</i>	Dark Lead Colour (118) <i>Handrails, Ladders & external louvers</i>	Lamp Black (228) <i>Rainwater Goods & exposed flues</i>	Clay Deep (154) <i>External Masonry (painted)</i>	Light Bronze Green (123) <i>Retail Units (paintwork)</i>

9.0

High Quality Joinery

1.0 High Quality Joinery

1.0.1	This specification covers all new high-quality joinery in addition to repairs, replacement and making good of existing joinery.	1.0.10	Ensure that all delivered materials match the approved samples.
1.0.2	All repairs, replacement, etc., will be scheduled and identified on drawings as appropriate and cross referenced to this specification.	1.0.11	No orders for materials shall be confirmed by the joinery contractor until the representative samples have been approved.
1.0.3	For all new work this specification is to be read in conjunction with the drawings.	1.0.12	The joinery sub-contractor is to ensure that he visits the site during the tender period to ensure that he is fully familiar with the conditions on site and to ensure that he is fully appreciative of the full scope of the works.
1.0.4	The Contractor is to satisfy himself that he is in possession of adequate information prior to commencing any work.	1.0.13	No subsequent claims arising from failure to inspect the site conditions will be entertained.
1.0.5	The Contractor is to be responsible for all on site measurement including setting out for new work, details and dimensions for any replacement or repair work.		
1.0.6	All dimensions included on the drawings are to be checked for accuracy on site prior to commencing work and any discrepancies reported to the Managing Agent immediately.		
1.0.7	No work shall commence until any such discrepancies have been resolved.		
1.0.8	No claims arising from the Contractors failure to comply with 1.0.4 or 1.0.5 above will be permissible.		
1.0.9	Machined samples of all timbers, veneered panels, etc., shall be submitted to the Managing Agent for approval. Where relevant the samples shall display the extremes of colour grain and texture variation. The approved samples will be retained as “control samples” against future deliveries. The samples shall have half the		

sample finished as the final finish specified with the remaining half unfinished.

2.0 Materials

2.1 Timber

2.1.1	All timber shall be of the species on the drawings and in all cases shall be of the best quality available, free from decay, holes, splits, shakes, and knots and in accordance with BS 1186 : Part 1 Class 1 and with a moisture content of 10% to 12%.
2.1.2	Where oak is specified on the drawings this shall be English Oak (Quercus Robor). The use of American Oak will not be permitted. The use of European Oak will only be permitted in exceptional circumstances and then only with the prior written consent of the Managing Agent.
2.1.3	All timbers shall be from a renewable source which is properly managed to ensure a sustainable supply.
2.2	Veneered Panels
2.2.1	Non Fire Rated veneered panels are to comprise a WBP bonded plywood substrate to BS 6566 edged and lipped as necessary with solid timber selected to match the specified veneer, and finishes with cross bonded veneer of the specified species of timber.
2.2.2	All panels are to be veneered at right angles to the grain of the core material and in such a manner as to ensure that the finished grain pattern is in the direction specified, or where replacing panels in the direction of the original.
2.2.3	Where only one face is required to be a finished veneer, the rear of the panel shall be counter veneered in a material of similar thickness and behavioural characteristics.

2.2.4	Lippings, edgings, solid inserts, etc., shall be of solid timber selected to match the veneer.
2.2.5	All veneers are to be crown or quarter cut and arranged in book matched or quartered format and are to be applied with waterproof synthetic resin to BS 1204
2.2.6	Veneers generally are to be 0.7mm thick. Where surfaces will be subject to extra heavy wear characteristics in use then the veneer thickness shall be 3mm thick. In these circumstances the requirement for thicker veneer will be indicated on the drawings.
2.2.7	Condition core material and veneers before bonding.
2.2.8	Set out veneers such that features, and pattern are aligned and in regular uniform symmetry unless specified otherwise. On larger panels apply veneers with edges tight butted with no gaps, other open defects and no lipping.
2.2.9	Bond all veneered panels in presses.
2.2.10	All finished components are to be free from bow, twist, scratches, chipping, pimpling, depressions, glue spill, staining or any other defects, and shall be sanded to a smooth finish, free from sanding marks.
2.3	Adhesives
2.3.1	Adhesives for timber joints shall be a waterproof resin-based adhesive.
2.3.2	Adhesives for veneering non fire-resistant panels is to be a waterproof synthetic resin to BS 1204.

2.3.3	All adhesives are to be used in strict accordance with the manufacturers recommendations and in strict accordance with any health and safety requirements.
2.4	Fixings
2.4.1	All fixings shall be non-corrosive and of an approved type.
2.4.2	All nails shall be to BS 1202.
2.4.3	All screws shall be to BS 1210.
2.4.4	Fixings which are visible on finished joinery will not be permitted.
2.4.5	Use fixing and joints methods and types, sizes, quantities and spacing of fastenings which are suitable having full regard to:
A.	the nature and compatibility with the materials being fixed,
B.	the recommendations of the manufacturers of the components and products being fixed or fixed to,
C.	materials and loads to be supported,
D.	conditions expected in use,
E.	appearance subject to approval.

3.0 Environmental Control

3.4.1	Ensure all components are stored in conditions appropriate to maintain the specified moisture content (10% to 12%) prior to manufacture, during machining, and subsequent storage.
3.4.2	Do not deliver any components or finished joinery to site until the correct conditions can be guaranteed to maintain the specified moisture content.
3.4.3	Do not fix any first fix backing framework, battens etc until conditions prevail to maintain a maximum moisture content of 18%.
3.4.4	Do not fix any joinery if the relative humidity is above 60%.
3.4.5	It is the joinery manufacturers responsibility to ensure that the above conditions are satisfied, and the joinery sub-contractor will be responsible for replacing any component which is subsequently found to be defective due to movement of any description caused by variations in moisture content.
3.4.6	The joinery contractor is responsible for maintaining conditions in his stores and workshops and ensuring that the main contractor has provided the correct conditions on site prior to commencing any deliveries or installation.
3.4.7	Agree with the Main Contractor arrangements for maintaining the environment up to the date of Practical Completion of the works to ensure excessive movement does not occur.

4.0 Preparation & Fabrication Off Site

- 4.4.1All joinery components shall be kiln dried to achieve an average moisture content of 10-12% at the time of fixing.
- 4.4.2All materials must be cut to the required sizes and acclimatised to end use conditions for a minimum of 4 weeks prior to being worked further.
- 4.4.3Fabricate joinery components to BS 1186 Part 2. Form sections out of solid timber except where specified. Carefully machine timbers to accurate lengths and profiles free from twist or bowing.
- 4.4.4After machining all surfaces are to be smooth and free from tearing, woolliness, chip bruising and other machining defects.
- 4.4.5Assemble with tight close-fitting joints with meeting surfaces to be perfectly flush to produce components free from distortion.
- 4.4.6All fabrication is to be carried out in the joinery contractors workshop unless prior written consent is given by the Managing Agent for limited fabrication being carried out on site.
- 4.4.7All joinery is to be manufactured to very strict tolerances to ensure the best possible finished product.
 - Length + 2mm on the total length of the component.
 - Width + 1mm on the total width of the component.
 - Flatness + 1mm under a 1 metre straight edge.
 - Squareness + 1mm under a 1 metre straight edge.

- 4.4.8Fix any panels setting out accurately, true to line and level, free from any undulations and lipping with any lines or joints (where specified) correctly aligned, straight and parallel to surrounding frame components unless otherwise specified. Make allowance for future movement caused by temperature variations and variations in humidity.
- 4.4.9Fix all panels securely to prevent pulling away, bowing or other movement during use.
- 4.4.10When using adhesives ensure that the surfaces to receive adhesive are sound, unfrozen, free from dust, grease and any other contamination likely to affect the bond. Where necessary clean the surfaces with materials recommended by the adhesive manufacturer for the purpose.
- 4.4.11Components are to be checked for fit before applying adhesive. Surfaces should be of sufficient smoothness and evenness to suit gap filling and bonding characteristics of the adhesive where joints will not be visible and to ensure that all joints are a tight fit with no discernible gaps on surfaces which will be visible on the finished product.
- 4.4.12Ensure that operatives observe the manufacturers and statutory requirements for storage and safe use of adhesives. Do not use adhesives in unsuitable environmental conditions or beyond the manufacturer’s recommended shelf life. Safely dispose of any adhesive which has received prolonged exposure to air or has started to set prior to use.

- 4.4.13Apply adhesives using recommended spreaders/ applicators to ensure correct coverage. Bring surfaces together within recommended time period and apply pressure evenly over the full area of contact surfaces to be bonded ensuring that any clamps, presses etc. are cushioned to prevent marking or indentation of the timbers.
- 4.4.14Remove surplus adhesive immediately using methods and materials recommended by the adhesive manufacturer and without damage to the affected surfaces.
- 4.4.15Where preservative treated timber is specified carry out as much cutting and machining as possible prior to treatment. Re-treat all timber which is subsequently machined or cut with flood coats of a solution recommended for the purpose by the main treatment solution manufacturer.
- 4.4.16Unless specified to be French polished components are to receive 2 sealer coats prior to delivery to site. Any surface which when fixed will be exposed to masonry walls are to have the concealed faces sealed to prevent moisture ingress. All work is to then have 2 coats of wax applied rubbing down with wire wool after each application.

5.0 Protection

- 5.4.1Ensure that after manufacture/ fabrication all components are safely stored/packageed and protected from damage in conditions similar to those that will prevail in the building.
- 5.4.2Do not deliver to site and do not remove protective packaging/ coverings until immediately before components are required for fixing and the correct environmental conditions prevail.
- 5.4.3Stack boards, panels, etc., on bearers and separated by spacers to prevent damage to or from projections.
- 5.4.4Keep all components clean and dry and adequately protected from physical damage until Practical Completion. Protection will have to be removed for inspection/ snagging but must be reinstated and maintained thereafter.

6.0 Erection on Site

- 6.4.1Check all dimensions of components and openings prior to commencing installation of any joinery works. Report any discrepancies to the Managing Agent.
- 6.4.2Nailing of joinery components will not be permitted if nails will be on exposed surfaces of the completed installation, with the exception of beads to panels or glazing. In these circumstances pins shall be punched below the surface of the wood and the hole filled with a suitable filler to match precisely the colour of the timber. Ensure that the filler is capable of receiving the specified finish and that it will not vary from the colour of the finished product on completion of all finishing treatments.
- 6.4.3Any areas subsequently found not to match will be replaced at the contractor’s expense.
- 6.4.4Where nailing of joints etc. is permitted, use not less than 2 nails and opposed skew nailing unless otherwise specified. Drive nails carefully to ensure that there is no splitting or crushing of the materials being fixed. Punch nail heads below the surface.
- 6.4.5Any components which are split during nailing will not be accepted for final installation.

10.0

Electrical Installations

1.0 General

- 1.0.1

All work undertaken either on the existing installation, or in any new works shall be carried out by a competent specialist contractor who is registered with the NICEIC.
- 1.0.2

All work shall be inspected on completion and a NICEIC completion certificate issued within 7 days of the completion of the works.
- 1.0.3

Existing installation is to be inspected prior to commencement of the works and any defects shall be recorded in a written report to the Managing Agent.

2.0 Materials

- 2.0.1

All materials shall be covered by a British Standard relevant to the product.
- 2.0.2

All sockets, switches, etc. shall be metal rather than plastic.

3.0 Workmanship

- 3.0.1

The whole of the installation shall comply in full with the current edition of the Institute of Electrical Engineer’s Regulations in force at the time of the installation.

4.0 Cable Routes

- 4.0.1

All cable routes are to be agreed with the Managing Agent prior to the commencement of the installation. Routes are to be selected to be as discreet as possible with the minimum amount of impact on the fabric of the building, Utilising existing routes wherever possible.
- 4.0.2

All fixings are to be positioned to avoid wherever possible any damage to the fabric of the building.

5.0 Protection of Existing Fabric

- 5.0.1

Great care is to be taken at all times to ensure that no damage occurs to any part of the fabric of the building.
- 5.0.2

Ensure all areas beneath any work are adequately and fully protected prior to commencement.
- 5.0.3

If the Managing Agent considered that the protection is inadequate, then work shall cease until the protection is to the satisfaction of the Managing Agent.

6.0 Builders Work

- 6.0.1

All builders work is to be agreed with the Managing Agent prior to any openings etc. being formed. Once agreement in principle has been obtained any builders work is to be marked up in chalk and agreed in detail with the Managing Agent prior to any holes, chases, etc. being formed.
- 6.0.2

Unless stated elsewhere the entire installation is to be surface mounted.

7.0 Fire Precautions and Temporary Lighting

- 7.0.1

All precautions referred to in the main contract preliminaries are to be rigidly followed.

11.0

Partitions

1.0 Alignment of partitions

- 1.0.1
- All partitions are to be installed internally on the line of the existing columns. This is to ensure that the grid of the building is legible. Subdivision which results in a partition abutting an external wall within 300mm of the edge of a window jamb is not permitted. Partitions that obscure a window in any way are not permitted.
- 1.0.2
- Glazed partitions are to be encouraged to the perimeter of the building, with plasterboard partitions used to subdivide the areas adjacent to the central lightwells. Whilst a circulation core will need to be maintained, it is understood that subdivision to ensure fire separation may be required, including the provision of a protected corridor.

2.0 Types of partitions

This specification covers the flowing types of partitions:

Non fire rated Partitions (plasterboard)

30-minute Fire Rated partitions

60-minute Fire Rated partitions

3.0 General Notes

- 3.0.1
- Care should be taken to ensure that unnecessary disturbance to the historic substrates/fabric is avoided or mitigated against. For example, screw fixings should be to plain plastered finishes or into joints of masonry walls, as far as possible. As far as possible, partitions should be a reversible intervention within the historic setting.
- 3.0.2
- All new partitions should be made to fit the historic fabric. No historic material should be removed to accommodate partitions. At interfaces such as skirtings/ cornices etc, the studwork should be set away from this (and packed as required), with the boarding suitably scribed around the historic fabric, and appropriately sealed/ filled.
- 3.0.3
- Partitions should be placed so as to avoid unsympathetic and jarring interfaces with the historic volumes and detailing. For example, partitions between columns should be centred on those columns, while similar centring should take place to piers/mullions between window openings.
- 3.0.4
- Related to the above, new partitions should avoid cumbersome junction details with windows or areas of detail such as historic panels. This will avoid crude detailing, but also helps the creation of new spaces to complement the existing/historic character.

- 3.0.5
- Glazing within partitions should be suitably set out in order to respect the character of the historic spaces. Consideration should be given to the existing details/proportions of the space in order to mitigate any impact.
- 3.0.6
- Where new service routes are to be installed within the space, these should be run through the partitions as far as possible, in order to avoid unnecessary chasing out of historic fabric.

4.0 New (Non-Fire-Rated) Partitions

- 4.0.1
- Gypwall Classic (or equivalent approved) comprising standard metal stud sections at maximum 600mm centres (refer to manufacturer’s recommendations for maximum partition spans).
- 4.0.2
- Standard floor and ceiling channels, fixed carefully to substrates as per manufacturer’s recommendations (see below notes).
- 4.0.3
- Standard deflection head to be installed to head of partition to mitigate movement. To align with studwork (recessed from boarding) to enable shadow gap detail to be formed.
- 4.0.4
- Allow for studwork to be filled with acoustic insulation.
- 4.0.5
- Studwork faced in 12.5mm plasterboard and skim finish. Decoration to correspond with accepted colour ranges elsewhere within the HPA documentation.
- 4.0.6
- Softwood skirting profile with simple bullnose/pencil round profile, decorated to correspond with accepted principles elsewhere within the HPA documentation.

5.0 New (30-min Fire-Rated) Partitions

- 5.0.1
- Gypwall Classic (or equivalent approved) comprising standard metal stud sections at maximum 600mm centres (refer to manufacturer’s recommendations for maximum partition spans).
- 5.0.2
- Standard floor and ceiling channels, fixed carefully to substrates as per manufacturer’s recommendations (see below notes).
- 5.0.3
- Fire-rated deflection head to be installed to head of partition to mitigate movement. To align with studwork (recessed from boarding) to enable shadow gap detail to be formed. Smoke seals to be provided according to manufacturer’s recommendations.
- 5.0.4
- Allow for studwork to be filled with acoustic insulation.
- 5.0.5
- Studwork faced in 12.5mm plasterboard and skim finish. Decoration to correspond with accepted colour ranges elsewhere within the HPA documentation.
- 5.0.6
- Softwood skirting profile with simple bullnose/pencil round profile, decorated to correspond with accepted principles elsewhere within the HPA documentation.
- 5.0.7
- All joints to be sealed/fire-stopped according to manufacturer’s recommendations noting the location of any raised access floors.

- 5.0.8
- All doors/glazing panels to carry same fire-rating as partition, with appropriate fire-stopping and smoke seals incorporated.
- 5.0.9
- Consult with partition manufacturer/Building Control inspector before approving final specification.

6.0 New (60-min Fire-Rated) Partitions

- 6.0.1 Gypwall Classic (or equivalent approved) comprising standard metal stud sections at maximum 600mm centres (refer to manufacturer’s recommendations for maximum partition spans).
- 6.0.2 Standard floor and ceiling channels, fixed carefully to substrates as per manufacturer’s recommendations (see below notes).
- 6.0.3 Fire-rated deflection head to be installed to head of partition to mitigate movement. To align with studwork (recessed from boarding) to enable shadow gap detail to be formed. Smoke seals to be provided according to manufacturer’s recommendations.
- 6.0.4 Allow for studwork to be filled with acoustic insulation.
- 6.0.5 Studwork faced in 15mm Gyproc Fireline (or equivalent approved) and skim finish. Decoration to correspond with accepted colour ranges elsewhere within the HPA documentation.
- 6.0.6 Softwood skirting profile with simple bullnose/pencil round profile, decorated to correspond with accepted principles elsewhere within the HPA documentation.
- 6.0.7 All joints to be sealed/fire-stopped according to manufacturer’s recommendations noting the location of any raised access floors.

- 6.0.8 All doors/glazing panels to carry same fire-rating as partition, with appropriate fire-stopping and smoke seals incorporated.
- 6.0.9 Consult with partition manufacturer/Building Control inspector before approving final specification.

7.0 Glazed Partitions

- 7.0.1 Glazed partitions may, on occasions form part of the sub-division of the open plan spaces due to the ‘deep plan’ nature of the building. Glazed Partitioning could be frameless, Acoustic or fire rated, dependant on the needs of the tenant, and should aim to be full height to the underside of any downstand beams.
- 7.0.2 All framing should be powder coated aluminium, coloured to sit with the colour table for redecoration.
- 7.0.3 A glazed partition can be chosen from the range of products in the Komfort range (or equivalent):

Komfort
Unit 501
Axxess 10
Bentley Road South
Darlaston
West Midlands
WS10 8LQ
- 7.0.4 Doors used within the system should match doors used in any new plasterboard partitions specified adjacent to glazed partitions.
- 7.0.5 Consult with partition manufacturer/Building Control inspector before approving final specification.

10.0

Pavement Lights Repair & Replacement Specification

1.0	Replacement Glass lenses (repair in situ)	2.0	Refurbishment of whole cast iron pavement lights	3.0	Replacement Pavement Lights
1.0.1	All broken glass lenses and inappropriate replacements must be repaired and replaced with new glass lenses when a pavement light is refurbished or replaced.	2.0.1	Occasionally, a whole cast iron frame will be removed and refurbished. This will allow its condition to be fully assessed, and the frame to be stripped back and grit blasted.	3.0.1	Some cast iron frames will be in such a poor condition that they require wholesale replacement. This specification can also be used to provide new pavement lights where they have previously been lost.
1.0.2	Existing broken lenses or poor quality repairs to be removed and the cast iron frame cleaned back to bright metal with a wire brush	2.0.2	It should be noted that the true condition of a cast iron frame can only be established once grit blasted, and provisional allowance should be made for the wholesale replacement.	3.0.2	New pavement lights should be formed to the existing 'Heywood' pattern and can be obtained from Hargreaves Foundry Water Lane Halifax West Yorkshire HX3 9HG Tel: 01422 330 607
1.0.3	All new glass lenses to be sandblasted glass and can be obtained from: New Age Glass Ltd. Units 4 & 6 Phoenix Business Centre Spur Road, Chichester West Sussex PO19 8PN Tel: 01243 790 414	2.0.3	Frames can be repaired and refurbished using the following metalworker: Calibre Metalwork Ltd Hazel Knott Torkington Road Hazel Grove Stockport SK7 6NW Tel: 0161 427 4603	3.0.3	All dementions as existing to be replicated using their existing pattern.
1.0.4	New lenses to be bedded on glazing tape and dry packed with a mix of fine silica sand and cement and wetted.	2.0.4	For replacement glass to refurbished lights see 10.0 above	3.0.4	New sandblasted glass lenses can be installed as noted in 10.0 above
				3.0.5	Note: Further details on size, strength and load capacity can be found on the New Age Glass website: www.newageglass.co.uk

Buttress

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