EKA220263

Earl Kendrick (London) Limited

Lancaster 80 Management Company Ltd

Lancaster 80

Materials And Workmanship

22-03-2024

external repair and redecoration to include terracotta cladding repairs

Contents

C40 Cleaning masonry/ concrete....1
C41 Repairing/ renovating/ conserving masonry....3
C51 Repairing/ renovating/ conserving timber....7
F21 Natural stone/ ashlar walling/ dressings....9
M60 Painting/ clear finishing....11
Z21 Mortars....14

C40
Cleaning masonry/ concrete

General/ preparation

160 Protection

1. Surfaces not designated for cleaning: Prevent damage, including marking and staining.
2. Openings: Prevent ingress of water, cleaning agents and detritus.
   2.1. Vents and grilles: Seek instructions before sealing up.
3. Temporary mechanical fastenings
   3.1. In masonry: Locate in joints.
   3.2. In other surfaces: Seek instructions.
4. Additional protection:

175 Control and disposal of wash water and detritus

1. Disposal: Safely. Obtain approvals from relevant Authority.
2. Control of wash water: Collect and divert to prevent ingress and damage to building fabric and adjacent areas.
3. Above and below ground drainage systems: Keep free from detritus and maintain normal operation.

180 Cold weather

1. Cleaning procedures using water: Do not use when air temperature is at or below 5°C. Protect damp surfaces from frost.
2. Chemical cleaning agents: Do not use when surface temperatures are below those recommended by manufacturer.

190 Cleaning generally

1. Operatives: Appropriately trained and experienced for each type of cleaning work.
   1.1. Evidence of training: Submit on request.
2. Control of cleaning: Confine cleaning processes and materials to designated areas. Prevent wind drift.
3. Detritus: Remove regularly. Dispose of safely.
4. Monitoring
   4.1. Frequently check results of cleaning compared to approved trial samples. If results established by trials are not achieved, seek instructions.
   4.2. Works to be inspected and approved in accordance with the requirements of the local planning authority.
5. Modifications to cleaning methods and materials: Seek instructions.

Products/ equipment

312 Surface biocides

1. Types: Registered by the Health and Safety Executive (HSE) and listed on the HSE website under non-agricultural pesticides.
2. Compatibility with surface: Free from staining or other harmful effects.

352 Masonry cleaning systems Type A

1. Manufacturer: Stonehealth Ltd
   1.1. Contact details
      1.1.1. Address: G4/5 Draycott Business Park
      Cam
      Dursley
      Gloucestershire
      GL11 5DQ
      1.1.2. Telephone: +44 (0)1453 540600
      1.1.3. Web: www.stonehealth.com
      1.1.4. Email: info@stonehealth.com
   1.2. Product reference:

Application

412 Removal of loosely adhered deposits

1. Timing: Before commencement of other cleaning methods.
2. Surfaces: Prevent damage, including abrasion.

422 Biocide application

1. Preparation: Remove loose growths
2. Surfaces: Prevent damage, including abrasion.
3. Biocide treatment: Appropriate solutions to kill growths and inhibit further growths.
   3.1. Dead growths: Remove.

482 Steam cleaning

1. Surfaces: Prevent damage, including abrasion.
2. Equipment settings (including nozzle type and distance from surface): Adjust regularly to achieve optimum cleaning performance for each surface.

Ω End of Section

C41
Repairing/ renovating/ conserving masonry

Generally/ preparation

130 Removal of plant growths from masonry

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

Workmanship generally

160 Protection of masonry units and masonry

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

165 Structural stability

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

170 Disturbance to retained masonry

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

180 Workmanship

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

185 Adverse weather

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

5. Hot conditions and drying winds: Prevent masonry from drying out rapidly.
6. New mortar damaged by frost: Rake out and replace.

Materials/ production/ accessories

215 Material samples

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

245 Replacement stone units

1. Sizes and profiles: To match existing masonry. Maintain existing joint widths.
2. Sinkings for fixings, joggles and lifting devices: Accurately aligned and positioned in relation to existing masonry.
3. Marking: Mark each block/ dressing clearly and indelibly on a concealed face to indicate the natural bed and position in the finished work.

275 Replacement terracotta units

1. Standard: To BS EN 771-1
2. Manufacturer/ Supplier: Submit proposals
3. Quality: Free from imperfections that will adversely affect durability.
4. Finish: Glazed (faience)
5. Colour/ Texture: To match existing
6. Dimensions: Match dimensions of existing units within agreed manufacturing tolerances.
7. Holes for fixings: Accurately aligned and positioned.
8. Drain holes: Provide where there is any risk of water entering voids in exposed blocks in copings, cornices and projecting features, etc.
9. Marking: Mark each unit clearly and indelibly on a concealed face to indicate position in the finished work.

281 Fixings

1. Type: Submit proposals.
2. Material: Copper alloy
3. Size, strength and number: As necessary to resist loads likely to occur during the life of the building, and to prevent lateral displacement or pulling apart of the construction.

285 Bed joint reinforcement to masonry

1. Standard: To BS EN 845-3
2. Manufacturer: Submit proposals
3. Material: Galvanized steel
4. Width: Approximately 40-50 mm less in width than wall or leaf.
5. Laying: On an even bed of mortar in a continuous strip with 225 mm laps at joints and full laps at angles. Keep back 20 mm from face of external work, 12 mm back from face of internal work and finish mortar joint to normal thickness.

Dismantling/ rebuilding - Not Used

Replacements and insertions

330 Preparation for replacement masonry

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

375 Replacement of terracotta

1. Terracotta: Faience blocks, as clause 270
2. Filling to blocks: Not required
3. Mortar: As section Z21.
   3.1. Standard: BS EN 998-2
   3.2. Mix: 1:2½-3 hydraulic lime:sand
4. Well graded from 1.18 mm sieve size down
5. Joints: Flush

400 Filling terracotta blocks

1. Voids in blocks: Fill with uncompacted, semidry, 1:1-2 bedding mortar:coarse aggregate mix, of uniform consistence.
2. Coarse aggregate: To BS EN 12620, grade 4/10

Tooling/ dressing stone in situ

455 Descaling stone

1. Requirement: Carefully remove loose scaling and powdering from stones to the extent agreed.
2. Method: Suitable bristle brushes or carborundum blocks. Do not use wire brushes.

Mortar repairs

510 Preparation for mortar repairs

1. Repair area: Scribe area of masonry to be removed using straight horizontal and vertical lines parallel to joints. Where repair area abuts joints, maintain existing joint widths and do not bridge joints.
2. Decayed masonry: Cut back carefully to a minimum depth of 20 mm to a sound background. Where the depth of removal exceeds 50 mm, seek instructions.
3. Precautions: Do not weaken masonry by removing excessive material. Do not damage adjacent masonry.
4. Top and vertical reveals of repair area: Undercut.

540 Applying mortar

1. Surfaces to receive mortar: Clean, and free from dust and debris. Dampen to control suction.
2. Applying coats: Build up in layers to specified thickness. Apply mortar firmly, ensuring good adhesion with no voids. Form a mechanical key to undercoats by combing or scratching to produce evenly spaced lines.

3. Allow each layer to achieve an initial set before applying subsequent coats. Prevent each layer from drying out rapidly by covering immediately with plastics sheeting and/ or dampening intermittently with clean water.
4. Finishing mortar coat: Form accurately to required planes/ profiles, and finish flush with adjacent masonry.
5. Protection: Protect completed repairs from adverse weather until mortar has set.

Crack repairs/ ties/ reinforcement

620 Resin injection repair of cracks

1. Resin injection system
    1.1. Manufacturer: Submit proposals
2. Preparation: Clean out cracks to remove debris, dust and dirt. Secure loose masonry units.
3. Exposed faces: Keep clean and free from stains.
4. Resin application: Use methods recommended by system manufacturer to fully bond masonry.
5. Completion: After resin has cured, remove temporary crack plugging material and protective coatings.
6. Pointing to cracks and injection holes:

690 Making good to injection and insertion holes

1. Preparation: Clean out holes thoroughly.
2. Repair mortar: To match existing masonry units/ joints in colour and texture. Fill holes and finish mortar neatly and flush with surrounding masonry.
3. Finished appearance: Obtain approval for first 5 holes before completing the remainder.

Grouting rubble filled cores - Not Used

Pointing/ repointing

810 Preparation for repointing

1. Existing mortar: Working from top of wall downwards, remove mortar carefully, without damaging adjacent masonry or widening joints, to a minimum depth of 15mm.
    1.1. Loose or friable mortar: Seek instructions when mortar beyond specified recess depth is loose or friable and/ or if cavities are found.
2. Raked joints: Remove dust and debris.

820 Pointing

1. Description:
2. Preparation of joints: Rake out existing mortar Carefully brush away loose mortar
3. Mortar: As section Z21.
    3.1. Standard: BS EN 998-2
    3.2. Mix: 1:2½ XYZ Ltd NHL 2 hydraulic lime:sand
    3.3. Sand source/ type: Crushed stone fine pointing sand to approval
4. Joint profile/ finish: Recessed back from weathered arrises to retain original joint widths. Brushed finish, as clause 860

Ω End of Section

C51
Repairing/ renovating/ conserving timber

General

150 Timber procurement

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

Structural repairs/ alterations

250 Timber section repairs – external splice

1. Defective timber: Cut out to clean, regular profile.
2. Replacement timber: Hardwood to match existing
3. Fixing to existing timber: using epoxy resin Repair Care

Products

370 Hardwood for joinery repairs

1. Description: use hardwood for all window joinery repairs
2. Species: Oak
3. Quality: Generally to BS EN 942; free from decay and insect attack (except pinhole borers).
4. Treatment: ??? to NBS section Z12 and Wood Protection Association Commodity Specification ???
5. Moisture content on delivery: 9-13%

540 Resin grouts Type A

1. Type: Dry Flex 4
2. Manufacturer: Repair Care International Ltd
   2.1. Contact details
      2.1.1. Address: Unit 19, Darwell Park
      Mica Close
      Amington
      Tamworth
      Staffordshire
      B77 4DR
      2.1.2. Telephone: +44 (0)1827 302 517
      2.1.3. Web: www.repair-care.co.uk
      2.1.4. Email: salesuk@repair-care.com
   2.2. Product reference:

Execution

600 Workmanship

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

620 Protection of timber and wood components before and during installation

1. Storage: Keep dry, under cover, clear of the ground and with good ventilation. Support sections/ components on regularly spaced, level bearers on a dry, firm base.
2. Handling: Do not overstress, distort or disfigure sections or components during transit, storage, lifting, erection or fixing.

690 Processing treated timber

1. Cutting and machining: Carry out as much as possible before treatment.
2. Extensively processed timber: Retreat timber sawn lengthways, thicknessed, planed, ploughed, etc.
3. Surfaces exposed by minor cutting and/ or drilling: Treat with two flood coats of a solution recommended by main treatment solution manufacturer.

750 Cleaning dirty or stained wood

1. Generally: Scrub with neutral pH soap and clean, warm water.
2. Old varnish: Remove using mixture of turpentine (not turpentine substitute) and acetone in proportions determined by experiment, followed by washing down.

760 Repair of members – cutting out members

1. Extent of timber removal: Cut out full cross section of member where wood is defective or decayed, plus 10mm of sound wood.

860 Moisture content checking

1. Procedure: Check moisture content of timber sections with an approved electrical moisture meter.
2. Test results: Keep records of all tests. If moisture content falls outside specified range obtain instructions.

870 Moisture content testing

1. Procedure: Test timber sections with an electrical moisture meter with deep probes. (A meter that has been carefully calibrated against oven drying tests or otherwise guaranteed by an independent testing authority.)
2. Test sample: Test 5% but not less than 10 lengths of each cross-section in the centre of the length.
3. Test results: 90% of values obtained to be within the specified range. Provide records of all tests.

Completion - Not Used

Ω End of Section

F21
Natural stone/ ashlar walling/ dressings

Types of walling/ dressings - Not Used

General production

240 Stone samples

1. Submit: Labelled samples of dressed stone or arrange for samples which represent the range of variation in appearance to be inspected.
    1.1. Timing: Before placing orders.

250 Cutting and dressing of stone

1. Timing: After seasoning but before delivery to site.
2. Accuracy
    2.1. Exposed and joint surfaces: Square, true planes free from hollow or rough areas.
    2.2. Dimensions: Maintain specified joint widths.
3. Orientation for natural bed of stones: Appropriate to properties of stones and positions in walling/ dressings.

260 Identification of stone units

1. Marking: Clearly and indelibly on concealed faces to indicate the natural bed and position in the finished work.

270 Inspection of stone units

1. Give notice: Before despatch to site, at appropriate stages of production.

280 Sand samples

1. Submit: Representative samples for approval of colour and grading.
    1.1. Timing: Before placing orders.

Laying and jointing

315 Adverse weather

1. General: Do not use frozen materials or lay on frozen surfaces.
2. Air temperature: Do not lay stones:
    2.1. In cement gauged mortars: At or below 3°C and falling or below 1°C and rising.
    2.2. In hydraulic lime:sand mortars: At or below 5°C and falling or below 3°C and rising.
3. Temperature of walling during curing: Above freezing until mortar hardened.
4. Newly erected walling: Protect at all times from:
    4.1. Rain and snow.
    4.2. Drying out too rapidly in hot conditions and in drying winds.

325 Laying generally

1. Stone selection: Do not use units with damaged faces or arrises.
2. Accuracy
    2.1. Courses: Level and true to line.

2.2. Faces, angles and features: Plumb.

2.3. Setting out: Achieve satisfactory junctions and joints with adjoining or built-in elements and components.

3. Absorbent stones: Dampen in warm weather to reduce suction. Do not soak.

4. Mortar joints

4.1. Laying: Full bed of mortar with all joints and voids filled.

4.2. Temporary distance pieces: Lead or stainless steel. Remove when mortar is sufficiently strong.

4.3. Appearance: Neat and consistent.

5. Cleanliness: Keep facework clean. Rubbing and other abrasive or chemical cleaning methods to remove marks and stains not permitted.

Ω End of Section

M60
Painting/ clear finishing

To be read with preliminaries/ general conditions.

12 Water-based finishing coats Type A

1. Description:
2. Manufacturer: Dulux Trade, brand of AkzoNobel
   2.1. Contact details
      2.1.1. Address: AkzoNobel Decorative Paints
      Wexham Road
      Slough
      Berkshire
      SL2 5DS
      2.1.2. Telephone: +44 (0)333 222 7070
      2.1.3. Web: www.duluxtradepaintexpert.co.uk
      2.1.4. Email: project.support@akzonobel.com
   2.2. Product reference: Weathershield Exterior High Gloss
3. Composition: Alkyd and fungicide.
4. Sheen: High gloss.
5. Colour:
6. Execution: Applying coating.
7. System code:
8. Capacity:
9. Form: Liquid.

22 Handling and storage

1. Coating materials: Deliver in sealed containers, labelled clearly with brand name, type of material and manufacturer's batch number.
2. Materials from more than one batch: Store separately. Allocate to distinct parts or areas of the work.

30 Preparation generally

1. Standard: In accordance with BS 6150.
2. Refer to any pre-existing CDM Health and Safety File and CDM Construction Phase Plan where applicable.
3. Risk assessments and method statements for suspected hazardous materials: Prepare for operations, disposal of waste, containment and reoccupation, and obtain approval before commencing work.
4. Preparation materials: Types recommended by their manufacturers and the coating manufacturer for the situation and surfaces being prepared.
5. Substrates: Sufficiently dry in depth to suit coating.
6. Efflorescence salts, dirt, grease and oil: Remove. Give notice if contamination of surfaces/ substrates has occurred.
7. Surface irregularities: Provide smooth finish.
8. Organic growths and infected coatings
   8.1. Remove with assistance of biocidal solution.
   8.2. Apply residual effect biocidal solution to inhibit regrowth.

9. Joints, cracks, holes and other depressions: Fill with stoppers/ fillers. Provide smooth finish.
10. Dust, particles and residues from preparation: Remove and dispose of safely.
11. Water-based stoppers and fillers
    11.1. Apply before priming unless recommended otherwise by manufacturer.
    11.2. If applied after priming: Patch prime.
12. Doors, opening windows and other moving parts
    12.1. Ease, if necessary, before coating.
    12.2. Prime resulting bare areas.

32 Previously coated surfaces generally

1. Preparation: In accordance with BS 6150.
2. Contaminated or hazardous surfaces: Give notice of:
    2.1. Coatings suspected of containing lead.
    2.2. Substrates suspected of containing asbestos or other hazardous materials.
    2.3. Significant rot, corrosion or other degradation of substrates.
3. Risk assessment and method statement for hazardous materials: Prepare for operations, disposal of waste, containment and reoccupation, and obtain approval before commencing work.
4. Removing coatings: Do not damage substrate and adjacent surfaces or adversely affect subsequent coatings.
5. Loose, flaking or otherwise defective areas: Carefully remove to a firm edge.
6. Alkali affected coatings: Completely remove.
7. Retained coatings
    7.1. Thoroughly clean.
    7.2. Gloss-coated surfaces: Provide key.
8. Partly removed coatings
    8.1. Apply additional preparatory coats.
    8.2. Junctions: Provide flush surface.
9. Completely stripped surfaces: Prepare as for uncoated surfaces.

37 Wood preparation

1. General: Provide smooth, even finish with lightly rounded arrises.
2. Degraded or weathered surface wood: Take back surface to provide suitable substrate.
3. Degraded substrate wood: Repair with sound material of same species.
4. Heads of fasteners: Countersink sufficient to hold stoppers/ fillers.
5. Resinous areas and knots: Apply two coats of knotting.
6. Defective primer: Take back to bare wood and reprime.

39 Steel preparation

1. Areas of defective primer, corrosion and loose scale: Take back to bare metal. Reprime as soon as possible.
2. Defective paintwork: Remove to leave a firm edge and clean bright metal.
3. Sound paintwork: Provide key for subsequent coats.
4. Corrosion and loose scale: Take back to bare metal.
5. Residual rust: Treat with a proprietary removal solution.
6. Bare metal: Apply primer as soon as possible.
7. Remaining areas: Degrease.

45 Previously painted window frames

1. Paint encroaching beyond glass sight line: Remove.
2. Loose and defective putty: Remove.
3. Putty cavities and junctions between previously painted surfaces and glass: Clean thoroughly.
4. Finishing
    4.1. Patch prime, reputty, as necessary and allow to harden.
    4.2. Seal and coat as soon as sufficiently hard.

50 External pointing to existing frames

1. Defective sealant pointing: Remove.
2. Joint depth: Approximately half joint width; adjust with backing strip if necessary.
3. Sealant
    3.1. Manufacturer: Contractor's choice
        3.1.1. Product reference: Contractor's choice
    3.2. Preparation and application: As section Z22.

55 Existing gutters

1. Dirt and debris: Remove from inside of gutters.
2. Defective joints: Clean and seal with suitable jointing material.
3. Suspected hazardous materials: submit method statement.

61 Coating generally

1. Application: In accordance with BS 6150,
2. Conditions: Maintain suitable temperature, humidity and air quality.
3. Surfaces: Clean and dry at time of application.
4. Thinning and intermixing: Not permitted unless recommended by manufacturer.
5. Overpainting: Do not paint over intumescent strips or silicone mastics.
6. Priming coats: Apply as soon as possible on same day as preparation is completed.
7. Finish
    7.1. Even, smooth and of uniform colour.
    7.2. Free from brush marks, sags, runs and other defects.
    7.3. Cut in neatly.
8. Doors, opening windows and other moving parts: Ease before coating and between coats.

80 Linseed oil putty glazing

1. Setting: Allow putty to set for seven days.
2. Sealing
    2.1. Within a further 14 days, seal with a solvent-borne primer.
    2.2. Fully protect putty with coating system as soon as it is sufficiently hard.
    2.3. Extend finishing coats on to glass up to sight line.

Ω End of Section

Z21
Mortars

Cement gauged mortars - Not Used

Lime:sand mortars

310 Lime:sand mortar mixes

1. Specification: Proportions and additional requirements for mortar materials are specified elsewhere.

320 Sand for lime:sand masonry mortars

1. Type: Sharp, well graded.
   1.1. Quality, sampling and testing: To BS EN 13139.
   1.2. Grading/ Source: As specified elsewhere in relevant mortar mix items.

345 Admixtures for hydraulic lime:sand mortars

1. Air entraining (plasticizing) admixtures: To BS EN 934-3 and compatible with other mortar constituents.
2. Prohibited admixtures: Calcium chloride, ethylene glycol and any admixture containing calcium chloride.

360 Making lime:sand mortars generally

1. Batching: By volume. Use clean and accurate gauge boxes or buckets.
2. Mixing: Mix materials thoroughly to uniform consistency, free from lumps.
3. Contamination: Prevent intermixing with other materials, including cement.

400 Making hydraulic lime:sand mortars

1. Mixing hydrated hydraulic lime:sand: Follow the lime manufacturer's recommendations for each stage of the mix.
   1.1. Water quantity: Only sufficient to produce a workable mix.
2. Working time: Within limits recommended by the hydraulic lime manufacturer.

Ω End of Section



Specification created using NBS Chorus