

APPENDIX 4 – 1949

Contents

1949 Specification of Works including Chester Terrace

Pre 1950 Photograph

Crown Lands Estate

Regents Park,

N.W.1.

Section 4

Specification of Works and Materials

Required For

The External repair of Property situated in

St. Andrews Place
Cambridge Gate
Cambridge Terrace
Chester Gate
Chester Terrace
Chester Place

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Crown Lands Houses
Regents Park,
N.W.1.

House Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 St. Andrews Place, Someries House.
House Nos. 1, 2, 6, 7 Cambridge Gate.
" " 1, 2, 3, 4, 5, 6 Cambridge Terrace.
" " 1, 2, 3, 4, 5, Chester Gate.
" " 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19,
20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 34, 36, 37, 38,
39, 40, 41, 42 Chester Terrace.
" " 1 and 2 Chester Place.
Mews Flats
11, 13, 22, 27, 39 Chester Terrace Mews.

Specification of Works and Materials

The specification is designed to cover as far as possible all items of structural external repair which though not visible on the surface is found by the S.O. to be essential when the work is commenced.

The specification must not be taken as giving any definite guide to the extent of the work, but is intended to provide for all unforeseen contingencies which may be met with. The Contractor must examine the properties and acquaint himself with the character of the operations.

The work generally to houses "A" consisting of:-

House Nos. 1, 2, 3, 5, 6, 7, 8 St. Andrews Place.
Someries House.
House Nos. 1, 2, 6, 7 Cambridge Gate.
" " 1, 2, 3, 4 Cambridge Terrace.
" " 2, 3, 4 Chester Gate.
" " 1, 2, 4, 5, 6, 7, 8, 9, 10, 12, 14, 15, 16, 17, 18, 19, 20, 21, 23,
24, 25, 26, 28, 29, 30, 31, 32, 34, 36, 37, 38, 40, 41, 42
Chester Terrace.
" " 1, Chester Place.

consists of reinstatement of all defective stucco work and the rebuilding of any defective brickwork in the outer $4\frac{1}{2}$ " skin that may be found also reinstatement of cores to cornices etc. all as itemised in attached schedule.

The work to houses "B" consisting of:-

House Nos. 4, 9, 10 St. Andrews Place.
" " 5, 6 Cambridge Terrace.
" " 1, 5 Chester Gate.
" " 3, 11, 13, 22, 27, 29, Chester Terrace.
" " 2, Chester Place.

(a) Putting the structures into good repair externally. The extent of the work is intended to cover the main walls of the houses and mews from the exterior faces to the depth of $4\frac{1}{2}$ " outer skin of brickwork so that defective window and door arches may be repaired and any loose facing brickwork renewed. The repair of all chimney heads, pots, parapet walls, copings etc. and boundary walls where instructed by S.O.

(b) The repair of stucco work.

(c) Roofs including gutters to be overhauled and put into sound condition in materials to match the existing as far as possible under present conditions. Any substitute material must be approved by the S.O. before being put into use.

(d) It is important to note that where major repairs to roofs are required the roofs must not be disturbed until all requisite material is on site and all possible protection must be provided against weather during the course of repairs. The repair of all windows and doors including area doors on external walls and roof lights where the work will not damage the interior window boxings, plaster or decorations.

14) External paintwork	Do nothing to existing, paint all new materials or whole if repaired.
15) External Stucco work.	We should not embark on a scheme so extensive as that for Office accommodation, we should only repair to save further deterioration or danger to persons. To standard method and mixes.
16) Dry rot where found.	Cut out and make good by standard method.
17) Copings, parapets, chimney heads, pots etc.	Make good where dangerous, rebed copings, repair cracks.
18) Railings to Areas.	Temporary. repair if dangerous.
19) Railings to balconies.	Temporary repairs if dangerous.
20) Entrance steps and Basement stairs.	Repair if dangerous
21) Defective brickwork	Repair as directed.

MINISTRY OF WORKS
REPAIRS TO LEASED HOUSES.

Scheme for the Repair of Crown Lands Houses.
Regents Park Estate, N.W.1.

*dry rot -
settlement on
main frame*

Type of Damage	Considered Action	Remarks
1) Missing or defective builders ironmongery. do we replace.	No action	
2) Defective plaster to ceilings and walls.	(a) If loose plaster we repair (b) Large defective patches we repair. (c) Old age cracks no action	
3) Defective plaster cornice and mouldings.	(a) Where loose repair if possible. (b) Where broken No action.	
4) Broken sanitary fittings	No action unless due to war damage or structural conditions this should be separately recorded.	
5) Internal doors	No action	
6) External doors and windows.	Make weathertight or renew if necessary.	
7) Landlords fixtures	No action	
8) Worn staircase treads	No action	
9) Repairs to fire-grates hearths mantles etc.	No action unless there is a definite fire risk.	
10) Elevations that have wooden or canopies over the entrance doors and also enclosures of balconies or other similar appendages of which were part of the original design and all now decayed.	We do not repair, occupants to have choice of (a) having them removed and walls etc made good:- we get their written consent:- or (b) they remain as they are.	
11) Boundary walls, garden walls etc.	No repairs unless imminent danger	
12) Drainage other than pipes attached to face of walls.	Not to be tested.	
13) Major cases e.g. Settlement of buildings causing the whole house to be out of vertical.	Each case to be reported separately for a decision.	

(e) The temporary repair of any defective cast iron or wrought iron railings to balconies, areas or external staircases.

(f) The overhaul and repair of all external soil pipes, RW pipes, C.I gutters and any other piping on the external walls.

Replace all defective stays to stone cappings cornices or ornate figures or features.

(g) The repair of all area walls, porticoes, colonades, balcony steps etc.

Special attention is drawn to the following Stucco repairs to all houses will not include any ornamental features such as cornice modillions and soffit panels, column and pilaster capitals and fluting or any other work of similar character.

Where cornices have ornamental features which are decayed they are not to be renewed, only the cornice mouldings will be run.

Where decayed ornamental stucco is removed and soffit of cornices etc. the repair will consist of two coat work only.

It is pointed out that the main work of the Contract is the repair of Stucco and that all Items Nos. 1 to 24 and all Items under the heading of "Sundries" Nos. 136 to 214 dealing with structural repairs, glazing, painting etc. are probably of small dimensions and are included in the schedule as incidentals for which rates are necessary.

Decisions as to the extent or treatment of any particular item of repair will be given on site by the S.O. or his representative.

Houses in List "A" are occupied as offices whilst Houses in List "B" are in private occupation and the attention of the Contractor is drawn to the necessity for providing adequate supervision during the course of the Contract and ensuring that the amenities of the occupants and the safety of the houses and contents are respected.

It is important to note that the Accounts for the work to houses in List "B" must be kept separate from the remaining houses.

There may be occasions when furniture or fixtures internally have to be moved and set aside to allow work to proceed. The furnishings disturbed are to be carefully dealt with and reset or refixed to the S.O.'s satisfaction on completion and any damage made good.

If any internal work must be done in connection with the external work all staircases floor and wall furnishings, chimney pieces, sanitary fittings and furniture must be covered up and protected to the satisfaction of the S.O. and the coverings cleared away on completion.

The Contractor's attention is specially drawn to the situation regarding the space required for materials and plant. Most of the roadways are private and under the jurisdiction of the Crown Estate Paving Commission. The gardens adjoining the roadways must on no account be encroached upon and there must be no obstruction to the carriageway and pavements in the roadways, unless agreed by all interested parties and pointed out by the S.O.

Arrangements will be made for a portion of ground ~~of~~ roadway being set aside for plant and material but the Contractor must make his own arrangements in conjunction with S.O. for the Clerk of Works and foreman's office, welfare and sanitary accommodation.

SUPERINTENDING OFFICER - The Superintending Officer shall be the Surveyor, including any person or persons acting for him, and is referred to throughout the Specification as the S.O.

BYE LAWS - The buildings being Crown Property are exempt from control under the bye-laws of local authorities within the boundaries of the property.

SITE AND LOCAL CONDITIONS - Before tendering the Contractor should visit the site which is situated at or near Outer Circle, Regents Park, N.W.1. and satisfy himself as to the local conditions, the accessibility of the properties, the full extent and character of the operations, the supply of and conditions affecting labour and the execution of the Contract generally, as no claim on the ground of want of knowledge in such respects will be entertained.

NOTICES - Give any necessary notices to adjoining owners and local authorities; pay fees, if any, for hoarding, connections to sewers, water etc., and furnish the required plans.

HOARDING - Construct and maintain where directed on the site a boarded hoarding not less than 6 ft. high with gates as may be required by the Local Authority, and clear away at completion or when directed.

The Contractor shall not affix advertisements to any necessary hoarding neither shall he permit advertisements to be affixed without the authority of the Ministry, and he shall remove advertisements so affixed. He shall permit advertisements to be affixed by any person authorised by the Ministry.

Construct and maintain any fans required for the protection of the public to the satisfaction of the Local Authorities and the S.O. and clear away on completion or when directed.

LIGHTING AND WATCHING - Provide all necessary temporary lighting and watching. Where electrical current is taken from an A.C. supply for temporary lighting or portable plant, the pressure used shall not exceed 100 volts. Portable leads and apparatus to be of types approved by the Home Office.

Allow for day and night watching in connection with the work all to the satisfaction of the S.O.

WATER PLANT ETC. - Provide a clean fresh water supply for the works, also all necessary scaffolding, planking and strutting to excavations, rules, molds, templates, centres, including formwork for concrete work as hereinafter specified and whatever else may be required for the completion of the building.

The Contractor is also to allow all Tradesmen employed by the Ministry to use the plant and fixed scaffolding as required, and to provide water for their use. No fixed scaffolding to be removed without the consent of the S.O.

SCAFFOLDING - The Contractor will provide, erect, maintain and dismantle all scaffolding of any type (tubular or pole) planks, ladders, etc., required to carry out the work externally and will make good any parts of the building disturbed or damaged by the scaffold fixing or supports.

DISTRICT SURVEYORS FEES - Fees which the S.O. may decide are properly payable to District Surveyors under the London Building Act must be paid by the Contractor, but will be refunded to him by the Ministry.

GRASS FORECOURTS AND LAWNS - No material will be allowed to be stacked on grass Forecourts or Lawns. Entrance for materials and workmen must be made when possible from rear of building.

Particular attention is drawn to the necessity of avoiding trespass on the gardens adjacent to the Terraces and to the strict preservation of the amenities enjoyed by the Lessees.

PULLING DOWN CARTING AWAY ETC. - Take down portions of buildings etc., where directed grub up foundations and remove rubbish and old materials, except such old bricks or other material as may be approved by the S.O. for re-use after cleaning.

The Contractor must ensure that all debris is well wetted to reduce dust to a minimum and that when demolition is ordered the material is taken to ground in proper chutes and kept wet to avoid dust nuisance.

SHORING - Provide erect and maintain any shoring and strutting that may be necessary for the safety of buildings including party or other walls. Remove same when no longer required or when directed and make good any damage.

FOOTWAYS - Take up footway or crossings as directed, stack same and relay and make good as may be necessary. This work to be done to the satisfaction of the Local Authority and the Crown Estate Paving Commission or the Contractor is to pay their charges for doing the work.

ATTENDANCE - Provide for attendance of Trade upon Trade as may be required to complete the works.

PROTECTION - Protect from injury all work externally including stucco stonework, brickwork, tile and other paving as required or directed.

All work executed by specialists employed by the Contractor or by the Ministry direct to be similarly protected.

TRESPASS AND DAMAGE - The Contractor shall prevent any trespass on the adjoining owner's property.

The Contractor is to take all reasonable precautions during the progress of his contract to prevent any damage to the adjoining property or public and private roadways and to prevent material, plant, rubbish, debris, etc., collecting on the adjoining property or roadway. Save as provided in the Conditions of Contract, the contractor will be held responsible for any damage accruing from the works and will have to make good same at his own expense.

ARTICLES PROVIDED - The Contractor is to be responsible for the storage and safety of all articles or goods provided by the Ministry after delivery to him in good condition and he shall at his own expense make good any damage that may occur after delivery from any cause whatsoever other than the accepted risks. He is, if required, to unload and hoist or assist in unloading and hoisting the same and he will be required to return all empty cases together with any packing material to the tradesmen supplying the goods, failing which he will be required to satisfy the tradesmen's claim for the same. Carriage charges on empties will be met by Government Conveyance Notes which are obtainable from the S.O. or Clerk of Works.

MATERIALS - All goods and materials to be of best quality. The name of the manufacturing firm and/or samples of the materials as may be required are to be submitted to the S.O.

All goods not otherwise specified to be in accordance with the British Standards Institution Specifications where such exist.

The Contract sum shall include the Purchase Tax on all chargeable items supplied by the Contractor.

The Ministry reserves the right to supply any of the materials required for the execution of the work. The value of such materials shall be assessed at the basic prices shown in the Appendix of Basic Costs of Materials and the total value shall be deducted from the contract sum.

TESTING OF MATERIALS - Wherever tests by outside consultants are called for the Ministry will bear the cost of fees for such tests as prove to be satisfactory but the Contractor will be required to reimburse the Ministry in respect of fees for unsatisfactory tests.

OWNERS FITTINGS - All owners fittings where affected by the work to the houses to be collected and stored where directed under lock and key and to be restored to good condition on completion of contract as directed by S.O.

All keys to be handed to the Clerk of Works.

SURPLUS FITTINGS - Where directed remove to store allocated any fittings that may be declared redundant by S.O.

STEEL RATIONING AND OTHER CONTROLLED GOODS - Application forms for the authorisation to acquire the necessary supply of steel, steel alloy or other controlled goods will be issued to the Contractor.

The Contractor will be responsible for ensuring that the quantity of such steel, steel alloy or goods applied for is sufficient to meet only the essential needs of the contract within each successive rationing period.

COMPLETION - Remove all rubbish. Scour all balconies, porches, areas and pavings where directed. Clean all windows in and out and leave the whole of the premises in a clean and perfect condition on completion.

WELFARE AND SAFETY PROVISIONS - The Contractor's attention is called to the Memorandum (Factory Form 1892 and Annex) published by H.M. Stationery Office regarding the provision of amenities for workpeople on the site. The Contractor is to provide and maintain welfare and safety measures and amenities up to a suitable standard based on that Memorandum, in so far as his own workpeople or workpeople employed on the site by Sub-contractors or by other contractors employed direct by the Ministry are concerned.

This specification of trades is included as a general procedure and is not intended to give any impression of the extent of the work, but must be adhered to where applicable.

EXCAVATOR

EXCAVATION - Grub up any old foundations and disused drains that may be necessary, and seal off the latter at the boundary line.

Excavate for all new foundations, drains, inspection chambers, water or other pipes.

Fill in and run to all foundations, drain pipes, etc.

SURPLUS EARTH AND RUBBISH - All superfluous earth or rubbish whether arising from this Contract or other works indicated herein to be carried out for the Ministry, to be carted away when directed.

PUMPING - No water to be allowed to accumulate in areas or any part of the site during alterations or relaying of drains. Provide for any pumping to keep areas from flooding.

HARDCORE - Lay broken bricks or stone as hard core under yard paving and floors next earth average 4" thick, well rammed.

STUCCO WORK

GENERALLY - Cut out cracks, strip loose Stucco as instructed by Surveyor.

MATERIALS - Sand - Sand to be Leighton Buzzard or Ham River Washed Sharp Sand.

Lime - The Lime which is to be approved Manufacture is to be hydrated of moderately hydraulic quality and free from air slaked material, and run into putty at least 48 hours before use.

Cement - The Cement is to be Portland Cement of British Manufacture to comply with the requirements of British Standard Specification No. 12. 1931.

The Cement for a stodge coat where ordered is to be Portland Cement as specified above together with Snowcrete to be supplied by The Cement Marketing Co.

The water repellent Cement where ordered is to be "Aquacrete" or other approved similar material.

WATERPROOFING SOLUTION - The waterproofing solution where ordered is to be made up from flake Calcium Chloride as supplied by Imperial Chemical Industries and is to be mixed and used in accordance with their instructions.

Deal boarded or other approved platforms are to be provided for the mixing of all cements etc. and the position of these platforms is to be decided by the Clerk of Works.

MIXES - The Mix for Plain Face Work to be as follows:-

Flat Surfaces

Coreing and dubbing out	1 part Portland Cement 3 parts Sand
Rendering or secondary coats	1 part White Hydrated Lime 1 part Portland Cement 6 parts Sand
Finishing coat	1 part White Hydrated Lime 1 part Portland Cement 6 parts Sand

Moulded Work

Corcing and dubbing out

1 part Portland Cement
3 parts Sand

Rendering and
Finishing coat

$\frac{1}{2}$ part White Hydrated Lime
 $1\frac{1}{2}$ parts Portland Cement
6 parts Sand

METHOD OF APPLICATION - After removal of Stucco back to the brickwork, this latter is to be wire brushed and wetted sufficiently to avoid absorption of liquid from the protective coats. The Primary and Secondary coats are to be laid on with a trowel, each about $\frac{1}{2}$ " in thickness, keeping back from finished face and scratched for subsequent rendering and setting, great care being taken in the application to eliminate all pockets in which water could subsequently lodge.

All the above mixes are to be used as made, no more should be made than can be used for the particular repair in hand and in no case must any mix left over from the previous day be again worked up.

CONCRETOR

(Including Reinforced Concrete)
(Floor and Roof slabs, Casings etc.)

SAMPLES - No cement, sand or coarse aggregate to be used until approved.

CEMENT - To be Portland; to be normal setting of the specific gravity, fineness and chemical composition described in the latest British Standard Specification for Portland Cement and to be capable of satisfying the tests contained therein.

SAND - To be clean and sharp and composed of hard siliceous grains or particles of hard durable stone or other suitable and approved materials. To be free from clay, salt, and any animal, vegetable, bituminous or other deleterious matter and must be washed and, if necessary, rewashed as may be directed if not properly clean when it arrives on the site.

Grading - All sand to be well graded from fine to coarse and to pass a mesh $\frac{3}{16}$ " square in the clear, not more than 15% of the sand is to be retained on a B.S. sieve No. 7 mesh and not more than 10% is to pass through a B.S. sieve No. 72 mesh.

COARSE AGGREGATE - Shall be hard broken durable stone, screened ballast or gravel, and shall be clean and free from sand, dust, salt, lime, clay or other deleterious matter.

Washing - All coarse aggregate to be thoroughly washed and, if necessary, rewashed as may be directed if not properly clean when it arrives on the site.

Grading - Coarse aggregate shall be well graded, from pieces which are just retained on a $\frac{3}{16}$ " square mesh, up to those which just pass a square mesh of the size given below:-

For concrete casings to beams and unreinforced, floors next earth:-
up to $\frac{3}{4}$ " Mesh.

STEEL REINFORCEMENT - For description see "Structural Steelwork".

FORMWORKS - For description of formwork see "Carpenter and Joiner".

All forms to be cleaned out and the inside of timber or absorbent formwork shall be well wetted on all surfaces with clean water before concrete is deposited.

CONCRETE MIXING - All mixing to be by machine unless otherwise permitted.

Machine mixing - Shall be done by power driven machines of an approved type and the capacity of the machines must be such that the concrete will be quickly and continuously deposited so that no weaknesses shall occur due to initial setting between the batches. All concrete must be thoroughly mixed to an even colour throughout, and the amount of water must be measured for every batch. The

consistency of the concrete shall be determined by the slump test. No concrete is to be used or remixed that shows indications of initial setting.

Hand mixing - Where this is permitted 10 per cent. extra cement shall be used. The materials for each batch are to be gauged and mixed on a clean platform and long-pronged rakes shall be used in addition to shovels for mixing. The materials are to be spread out in even layers, coarse aggregate first, then sand and cement, the whole turned over three times dry and three times wet or more if necessary to produce an even colour and consistency. The water is to be applied through a rose and consistency is to be as directed.

CONCRETING - The use of inclined shoots will be permitted only in approved circumstances.

The concrete is to be deposited as quickly as possible after mixing and is to proceed continuously so that as far as possible complete sections of the work are done at one operation. Where concrete is laid on hardcore or other absorbent material, the bottom is to be consolidated and blinded where necessary with fine material and in any case to be well wetted before the concrete is deposited.

The mixing machine, mixing platforms and the wheel-barrows used for carrying concrete shall be cleaned on cessation of work.

In re-starting work which has been stopped the surface of the joint must be hacked and roughened, thoroughly cleaned from all foreign matter and well washed with clean water. Before concreting is recommended, the hacked and cleaned surface shall be wetted and covered with a layer of cement mortar composed of one part of cement to one part of sand.

The concrete is to be efficiently tamped and consolidated around the steel rods, filler joists, or steelwork and into all parts of the moulds in order that the steel has complete contact with the concrete and that no voids or cavities are left. Unless otherwise permitted concrete is not to be thrown in from a height exceeding 4 feet.

Concrete mixing or depositing is not to be carried on when the temperature is less than 36° Fahrenheit.

The unmixed materials for the concrete are to be protected from snow and frosts and in dry weather the sand and aggregate shall be kept in damp condition by watering.

Concrete is to be protected from frost, inclement weather, damage or too rapid drying by covering with sacking or other suitable material and is to be kept well wetted for at least one week. All shaking or jarring during setting must be avoided.

No traffic over, or loading applied to, the concrete will be permitted until it is thoroughly set and hard.

CONNECTIONS AND OPENINGS - All bolts for connections of pipes and fittings are to be concreted in as the work proceeds, openings are to be left for ventilators and pipes and bolt holes for balustrades, etc., or any such requirements as may be directed.

PROPORTIONS OF CONCRETE - The concrete shall be mixed in the following proportions in the various parts of the work, except where otherwise specified or shown on the Contract Drawings.

For Mass concrete foundations and unreinforced floors next earth.

Cement:-	112 lbs.	} Nominally described 1:3:6
Sand:-	$3\frac{3}{4}$ cubic feet	
Coarse aggregate:-	$7\frac{1}{2}$ " " "	

For reinforced concrete and casing of beams:-

Cement:-	112 lbs.	} Nominally described 1:2:4
Sand:-	$2\frac{1}{2}$ cubic feet	
Coarse aggregate:-	5 " " "	

The sand and coarse aggregate to be accurately gauged in wrought wood boxes; the cement to be measured by weight. Water to be measured for every batch.

CONCRETE FOUNDATIONS - Under walls, to be in concrete as previously described and to the thicknesses directed by S.O.

FLOORS AND FLATS - Floors next earth to be of concrete as described laid on hard core to the thicknesses directed by the S.O.

CONCRETE PAVING TO AREAS ETC. - To be average 4" thick, rolled with a pinhead roller or otherwise roughened to approval.

Flat roofs to be in concrete, flats to be formed with approved Precast Beams.

Flat roofs, finished with asphalt to be thoroughly cleaned off, well wetted and floated smooth with cement and sand (1:4) $\frac{3}{4}$ " thick.

CONCRETE CEILINGS AND SOFFITS - Where specified or shown to be plastered to be well and uniformly roughened to approval by the use of an approved retarding liquid applied to the surface of the form work.

CASINGS TO BEAMS - To be of concrete as previously described with all necessary reinforcement as detailed.

CONCRETE LINTELS - To be of reinforced concrete previously described as 1:2:4.

Lintels to be the thickness of walls less any outer arches. Where exposed on external walls or in internal walls not plastered, the face of concrete to be kept back $\frac{1}{2}$ " from wall face for cement finish see "Bricklayer".

Depth and bearings to be as follows:-

Width of opening	Depth of Lintel	Bearing at each end
Up to 3' 0"	6"	$4\frac{1}{2}$ "
Over 3' 0" and up to 4' 6"	9"	$4\frac{1}{2}$ "
Over 4' 6" and up to 6' 0"	9"	$6\frac{3}{4}$ "

or as otherwise detailed.

All arranged to course with brickwork.

Reinforcement to be of steel and unless otherwise shown on drawings to be as follows:-

For clear spans not exceeding 5 ft. $\frac{3}{8}$ " diameter rods, two to lintels $4\frac{1}{2}$ " thick, three to 9" and four to $13\frac{1}{2}$ ".

For clear spans exceeding 5 ft. and up to 9 ft. $\frac{1}{2}$ " diameter rods similarly spaced.

The rods to be hooked at both ends and to extend over bearings to within $1\frac{1}{2}$ " of ends of lintel. Concrete cover at sides and soffit to be not less than $\frac{3}{4}$ " or more than 1". In casting lintels top surface to be clearly marked to ensure correct fixing.

CONCRETE STEPS AND LANDINGS - To be reinforced concrete previously described as 1:2:4.

Surfaces of treads and risers to be cast with 1" facing of granolithic composed of one part of cement and two parts of granite clippings to pass $\frac{1}{4}$ " square mesh and free from dust. Surface of treads and landings to be thickly sprinkled with coarse carborundum average 2 lbs. per square yard lightly trowelled in. Risers and exposed ends to have smooth finish.

Overall depth of steps to be not less than $1\frac{1}{2}$ " per foot of clear span with a minimum depth of 6". To have square wall holds with at least $4\frac{1}{2}$ " bearing on wall.

Reinforcement to consist of two $\frac{3}{8}$ " diameter rods. To be placed in lower part of step with square hooks at each end with $1\frac{1}{2}$ " cover at ends and not less than $\frac{3}{4}$ " or more than 1" cover at soffits as shown on Detail Sheet SESS2b.

Steps to be prepared to receive iron balusters two per step.

THRESHOLDS - To be of precast concrete with Carborundum finish all as described for steps.

MINOR REPAIRS TO STONE STAIRS - Repair the stone steps of internal staircases to be in cement and crushed Portland stone. Cut out defective parts under cut to form dovetail tie and make good to match existing.

Holes in steps where balusters are missing to be carefully cleaned out and prepared for new balusters.

COPINGS TO PARAPETS AND WALL HEADS - To be precast in lengths convenient for handling in 1:2:4 concrete and to match existing in thickness and detail. To be set and bedded in cement mortar.

BRICKLAYER

MATERIALS - Sand to be clean sharp coarse grit (fresh water river or pit) and free from impurities.

Lime to be of medium hydraulicity, freshly burnt, or other approved.

Cement mortar, unless otherwise described to be composed of one part of cement to three parts of sand mixed in small quantities, as required.

BRICKS - To be secondhand well burnt stocks. Facing to be picked stocks pointed with a neatly struck weather joint.

DEMOLITION - Where demolition of brick walling is necessary the walls must be taken down with care and adjacent work protected from damage as far as possible. No walling to be thrown. Debris must be discharged through chutes to ground where directed.

WALLS SOLID - To be in bond to match existing. Bricks to be laid in cement mortar properly bedded, joints on face of walls to be left rough for plastering or stucco where necessary. Bricks to be well soaked before use and no part of the wall to exceed another in height more than 5' 0" at the same time.

DAMPCOURSE TO WALLS - Level walls where required and lay two courses of stout slates to break joint in cement mortar (1 to 1) to be kept back $\frac{1}{2}$ " from external face of wall and pointed flush in cement mortar.

POINTING - Mortar for pointing to be composed of 2 parts sand and 1 part cement.

RENDERING - Render inside face of new parapet walls with cement and sand (1 to 3) $\frac{1}{2}$ " thick also external face of concrete lintels.

BED PLATES ETC. - Bed in cement mortar any new plates, timber, stone or ironwork, requiring it. New door and window frames to be bedded in fine hair mortar and pointed in cement.

FIXING BLOCKS - Provide and build in all necessary breeze bricks 9" x $4\frac{1}{2}$ " x 3" for fixing joiners work.

OUT, PIN IN ETC. - Where necessary form chases not less than $4\frac{1}{2}$ " deep or build over-sailing courses as may be indicated to receive concrete floors or precast concrete floor units.

DRAINAGE

DRAINS - B.S. 65/1937 Salt glazed ware pipes and B.S. 539/1937 drain fittings laid on concrete 6" thick and 12" wider than the outside diameter of pipe and flanchued up to top of pipe.

Pipes to be laid dry and joints made by inserting one or more rings of rope yarn to occupy not more than one quarter of the socket depth, remainder to be filled with 1-1 mortar and to have fillet of same work round the outside trowelled smooth.

Cast iron pipes to be coated and to comply with B.S. 437/1933 and Amendment No. 1 August 1943, 4" pipes to weigh 157 lbs. and 6" pipes 225 lbs. per 9'0" length. Pipes in trenches to be supported on concrete blocks 12" x 12" x 6" thick behind each support end jointed in yarn and cement as described above. Where pipes are suspended the joints to be made with lead wire or lead wool, caulked in, the remaining space being filled in with molten lead well caulked.

Inspection chambers to be in 4½" brickwork (9" brickwork where over 2'6" deep) floor 6" concrete. Channels to be salt glazed half pipes for main channel which shall have 6" vertical benching finished off at 20° angle, three quarter elliptical for branches the latter being set to deliver over main channel all bedded and jointed in 1-3 cement and properly benched. Where necessary C.I. pipes are to have C.I. access chambers and covers secured with ½" screws or bolts and nuts not exceeding 7" apart and cover provided with ½" greased felt blanket washer to form watertight joint. Benching and sides of chambers up to 3'0" above top of channel to be rendered smooth (except where built in engineering bricks) and any brickwork above pointed with 1-3 cement mortar. Galvanised C.I. steps to be built in 18" apart in chambers more than 3'0" deep.

MANHOLE COVERS - Where in reinforced concrete to be as detailed. Where in iron will be supplied by the Ministry.

TESTING NEW DRAINS - All new drains and sanitary work to be tested with water and smoke during progress with final test at completion.

MASON

All new stonework to match existing stonework in all respects unless otherwise directed by the S.O.

Stone to be free from vents, shakes, objectionable irregularities of colour and all other defects.

All new stonework to be properly bounded to brickwork.

Cut all mortices, grooves for glazings etc.

Repairs to steps of external and internal stone stairs where nosings have been damaged in a length of 6" or more to have defects carefully cut out and new stone dovetailed in and set in cement all to match existing thresholds to be similarly treaded.

ASPHALTER

All asphalt roofing shall be carried out by a Specialist firm approved by the S.O., and shall be (1) (A) limestone aggregate mastic asphalt manufactured and laid in accordance with B.S. 988/41 (b) natural rock mastic or (2) recovered rock asphalt refluxed as necessary with equal parts of lake asphalt and asphaltic petroleum bitumen or (3) recovered compressed asphaltic refluxed as necessary with equal parts of lake asphalt and asphaltic petroleum bitumen. Where (1) (b) (2) or (3) are used workmanship shall be in accordance with B.S. 988/41 and the work shall be carried out under a guarantee of performance. Approval will be given to the material most readily available preferably in the order stated above.

Where on timber roofs the boarding to have one layer of hair felt and one layer of 1" mesh wire netting well lapped and stapled down before the first coat of asphalt is laid.

SLATER

Carefully examine slated roofs, sort and set aside sound whole slates and reslate roofs when defective re-using those slates selected and approved, each slate to be fixed with two galvanised nails including all labours and double course at eaves.

Where directed ridges and hips to be in blue Staffordshire half round ridge or hip tiles, bedded in lime mortar and pointed in cement.

CARPENTER AND JOINER

Carcassing timber to be equal to Douglas Fir known as Merchantable.

Timber for all joinery is to be equal in quality to Douglas Fir known as "No. 2, clear and better random grain". That for use internally is to have a moisture content of not more than 14% and for use externally of not more than 18%. If this grade of timber is not procurable or if the moisture content is greater than specified, the Contractor is to immediately advise the S.O. who will issue a variation order to cover the additional cost of either regrading or kilning on receipt of satisfactory confirmation.

The Contractor is to allow in his rates for all conversion of timber below the size of 9" x 4", conversion of flitches down to this size will be allowed as a variation on the Contract.

The Contractor shall take all necessary sizes from the work and prepare the requisite templates, rods, etc., and will be responsible for the accurate fit of all new joinery, and for correct matching up where required and the Contractor will be called upon to rectify at his own cost any errors which may arise through his own negligence.

The joiners' work shall hold the various thicknesses enumerated allowing 1/16" for each surface planned. It is to be properly framed wedge with hardwood wedges and glued together, and is generally to match in scantling and design the existing work.

All joinery is to be planed, cleaned off and well papered smooth before priming with close fitting shoulder scribings and mitre joints, all arrises to be sharp and true, moldings accurately worked throughout, framed together out of winding with edges shot clean and true to fit into the existing frames.

GENERALLY - Woodwork exposed to view to be wrought.

FIXING - Window and door frames, casings and other joinery to be secured to breeze fixing blocks as specified in "Bricklayer". Hardwood stops and plugs to be used if required or directed.

IRONMONGERY - Ironmongery supplied by the Contractor to be strong and patterns to be approved by the S.O. Steel butts to be heavy machine-made with polished joints.

Brass fittings to be fixed with brass screws.

Bolts to have suitable brass or iron sockets as required to correspond with bolts. Sockets and plates to be fixed with screws, and when in stone, tile, cement, asphalt or other paving to be run with lead.

LOCKS AND LATCHES DOOR FURNITURE, BOW HANDLES, FINGER PLATES, SWING HINGES, FANLIGHT, STAYS AND OPENERS, CASEMENT STAYS AND FASTENERS, SASH FASTENERS, BOLTS - These items together with the requisite brass or iron screws are to be supplied and fixed by the Contractor to the approval of the S.O.

NEW PARTITIONS - New stud partitions to be properly framed together with all necessary trimming for borrowed lights. Heads and studs to be 3" x 2" cills 4" x 2". Head cills and end studs to be fixed to floor or brickwork. Studding to be covered with plasterboard and finished in Keenes.

SMITH AND FOUNDER

CAST IRON - All castings to be from good quality pig iron, suitable for the purpose, perfectly smooth and free from flaws and other defects.

WROUGHT IRON - To be of the best description from approved makers.

TRIMMING - All surfaces of iron in contact and surfaces that will be difficult of access when fixed to be thoroughly cleaned and painted before the parts are assembled.

STRUCTURAL STEELWORK INCLUDING STEEL REINFORCEMENT

GENERAL - The Ministry of Works Chief Structural Engineer or his representative will act on behalf of the S.O.

The Contractor shall submit duplicate copies of all working drawings and sketches and when corrected as may be necessary shall supply two sets of photo prints.

Working drawings and sketches must bear the name of the building to which they refer.

All drawings must show the erection marks which are to be used in assembling the steelwork on the site.

Notwithstanding any approval of the working drawings and details the Contractor shall be responsible for the correctness of dimensions, details and workmanship and for all parts of the various structures coming together correctly for assembling in position.

Variations will be assessed on the net calculated weight which shall be determined from the dimensions shown on the drawing, on the assumption that one square foot of steel one inch thick weighs 40.8 lbs.

No allowance will be made for rolling margin cutting or waste, notwithstanding any trade custom to the contrary.

MATERIALS - The mild steel for all structural work and reinforcement to be of British Manufacture as described in the latest British Standard Specification for Structural Steel for Bridges and General Building Construction and to be capable of satisfying the tests specified therein.

SECTIONS AND WEIGHTS - All joists, channels, angles, tees, plates, rounds, etc., to be of the sections and weights indicated, subject to a rolling margin under or over of 2½%. Where the actual weight is more than 2½% under the specified or calculated weight the material will be liable to rejection. Steps to be taken as may be directed to confirm the weights indicated.

PLUMBER

SHEET LEAD - For roof work to be of the following weights.

Flats and Gutters	6 lbs.
Valleys, lips, ridges, dormer tops and cheeks and lips and ridges of top lights	5 lbs.
Flashings, aprons and soakers and sills and heads of wood lanterns	4 lbs.

Flashings to be turned into walls not less than 1", secured with cast lead wedges and pointed in cement.

Flats to pipes passing through roofs and gutters to chimneys to be 4 lbs. lead.

WATER SUPPLY AND SANITARY WORK - All service pipes, fittings etc. to meet the requirements of the Water Authority. Pipes and tubes to be fixed in a neat and workmanlike manner. Water pipes in the ground to be not less than 3'0" below the surface. No copper pipes to be used below ground. Soldered joints to be in accordance with Memorandum No. 3 of B.S. 219/1942 (soft solders).

Lead Pipes. To be in accordance with B.S. 602 - Amendment No. 2, March, 1942.

Weights and gauges of pipes to be as follows:-

LEAD	
Int. dia.	per yard
1 $\frac{1}{4}$ "	12 lbs.
1 $\frac{1}{2}$ "	14 lbs.
2"	18 lbs.
2 $\frac{1}{2}$ "	24 lbs.

SOIL WASTE AND VENT PIPES - To be as scheduled.

Cast iron pipes to be in accordance with B.S. 416/35 and to be coated or galvanised as schedule and of the following weights:-

Cast Iron "coated".	
Int. dia.	Per 6 ft. length
2"	24 lb.
2 $\frac{1}{2}$ "	20 lb.
3"	40 lb.
3 $\frac{1}{2}$ "	48 lb.
4"	54 lb.

Soil and vent pipes to be fixed 1 $\frac{1}{2}$ " clear of walls. Internal C.I. pipes to be jointed with lead wool or ribbonite and well caulked to within 1 $\frac{1}{2}$ " of face of socket; the remaining space to be filled with molten lead and caulked. External C.I. pipes to be jointed with yarn well and evenly caulked to within 1 $\frac{1}{2}$ " of the face of the socket, the remaining span completely filled with cement and sand 1:1 finished to a smooth surface. Prior to jointing the spigot and interior of sockets, coating shall be removed and the surface of the metal bared. Pipes built in or passing through walls to be wrapped with felt. Vent pipes to be carried up 2 ft. above eaves and to have galvanised iron balloon grating fixed on top.

Flushing pipe to be connected to arm of closet with approved lead cone or canvas and oil mastic. Joint between closet thimble and soil pipe to be made with red lead and chopped hemp; joint to drains with cement and sand 1:2.

PLASTERER

The sand to be washed fresh water or pit sand, clean and sharp and free from impurities.

Lime to be chalk or fat lime and the putty to be run at least four weeks before use.

Coarse stuff on brick to be 1 part of lime to 3 parts of sand and on lath to be 1 part of lime to 2 parts of sand. One pound of well beaten hair to be added to every 3 cubic feet of mortar and the whole well mixed by hand.

The fine stuff to consist of one part of lime putty to two parts of sand.

The Keenes cement and plaster to be of best quality from an approved manufacturer.

The cement to be Portland ordinary conforming to B.S. 12/1940 and Amendment March, 1942.

Backing for Keenes cement shall consist of 1 part of cement and 4 parts of sand.

Laths to be sawn $\frac{1}{2}$ " thick, nailed with stout wire nails and fixed with butt joints and to break joints every 3 feet.

"Thistle" plaster or other hardwall plaster must be used in strict accordance with the maker's instructions and no mixture with any other ingredient can be permitted.

GLAZIER

The whole of the glass is to be well puttied back and front and sprigged in where possible.

The putties are to be full to sight line of glazing bars and are to be neatly trimmed and cleaned off.

The putty is to be composed of pure whiting and genuine linseed oil.

Putty in steel sashes and lantern lights to be of special manufacture for its purpose.

Glass in sliding sashes is to be of similar weight to that originally fixed to avoid altering weights where existing sashes are to remain and the Contractor is to ascertain this before ordering as no allowance will be permitted for re-weighting.

Glass in borrowed lights and fanlights etc. to be of the weights in existing.

Glass in lavatory windows to be Arctic cast.

Glass in rooflights to be wired cast plate.

PAINTER

MATERIALS - All paints including primings, undercoats, and finishings, are to be obtained from a firm approved by the S.O.

Orders for paints must indicate that the material is required for Ministry of Work's Contracts, also whether interior or exterior quality is required. For radiators or hot water pipes special heat-resisting qualities are to be ordered. The Contractor will only be allowed to use material which is delivered to the site in sealed cans, bearing the name of the manufacturer and properly labelled as to quality. Only interior quality is to be used for interior work and exterior quality for exterior work.

The paints, which will be subject to analysis, are to be used exactly as received from the manufacturer, and under no circumstances will the addition of thinners, dryers or other material be permitted. Paint supplied which is defective or unsatisfactory, must be returned immediately to the manufacturer.

COLOURS - Primings and first undercoatings to be supplied in the following standard shades:-

<u>TYPE</u>	<u>COLOUR</u>
Primings, for wood	Light Pink
for metal	Red, Brown or Yellow
"Sharp" priming for new Keene's plaster applied following the trowel)	Pale Grey

COLOURS contd. -

TYPE

COLOUR

Priming for use on old and
dry Lime or Hard Plaster }

Broken White

Undercoatings, for work to be
finished in pale }
colours

White

for work to be
finished in deep }
colours

Medium Grey

Finishings to be as selected.

SCHEDULE OF PAINTS TO BE USED

All paints, including primings, undercoats and finishings shall be obtained from one of the following firms. The materials shall be of the quality described and supplied ready for use.

MANUFACTURERS	FOR PRIMING IRON OR STEELWORK	FOR EXTERIOR WORK GENERALLY	FOR INTERIOR WORK GENERALLY
Craig & Rose		"Imperval" Exterior quality	"Imperval" Interior Quality
Dixon's White, Ltd.		"Metseala"	"Dixon's White" Interior Paint
Docker Bros.		"O.B.S." Brand "Optimus" Exterior quality	"O.B.S." Brand "Optimus" Interior quality
R. Gay & Co.		"O.W. Impenetrable" Exterior quality	"O.W. Etruscan" Interior quality
Goodlass, Wall & Co.		"O.W. Combinol" Exterior quality	"O.W. Combinol" Interior quality
Hadfields, Ltd		"O.W. Heolin" H.L.T. Paint	"O.W. Heolin" Leadless Paint
Thos. Hinshelwood & Co.		"O.W. Walcote" Exterior quality	"O.W. Walcote" Interior quality
British Paints Ltd.		"O.W. Protectoros" Exterior quality	"O.W. Protectoros" Interior quality
Leyland Paint & Varnish Co.		"O.W. Leylac" Gloss Enamel Paint Exterior quality	"O.W. Leylac" Gloss Enamel Paint Interior quality
Mander Bros.	"O.W. Metal Priming	"O.W. Flexolin" Exterior Exterior quality	"O.W. Rubber Paint" quality Interior quality
Murray & Jones		"Murjo" Paint "Alp" quality	"Murjo" Paint "Sterling" quality
I.C.I. (Paints) Ltd.		"S.E.C." Paint Exterior quality	"S.E.C." Paint (leadless)
Paripan, Ltd.		"Compo-Paripan" Exterior quality	"O.W. Paripan" Interior quality
Thos. Parsons & Sons		Parsons' "O.W." Gloss Paint Exterior quality	Parsons' "O.W." Gloss Paint Interior quality
Walpamur Co.		"O.W. Duradio" Exterior quality	"O.W. Duradio" Interior quality
T. & R. Williamson		"O.W." Makaurite Paint Exterior quality	"O.W." Makaurite Paint Interior quality
Smith & Walton Ltd.		"O.W. Hadrian" Gloss Paint Exterior quality	"O.W." Hadrian Gloss Paint Interior quality
United Paint Co. Ltd.		"O.W. Unitas" Enamel Paint Exterior quality	"O.W. Unitas" Enamel Paint Interior quality
Jenson & Nicholson, Ltd.		"Runic" Imperishable Enamel Paint	"Brilure" Hard Gloss Paint. Interior quality
W. & J. Leigh Ltd.		"Olivette" Enamel Paint Exterior quality	"Olivette" Enamel Paint Interior quality

FLAT OIL PAINT AND THE APPROPRIATE PRIMER shall be obtained from one of the following firms and used in accordance with the manufacturers' instructions:-

Craig & Rose's D.P. Flat Oil Paint.
Dixon's "Feltone".
Docker's "Muroleum"
Gay's "Gaymatt"
Goodlass, Wall's "Combinol" Flat Oil Paint.
Hadfield's "Hoolin" Flat Oil Paint
Hinshelwood's "Lotus" Flat Oil Paint
British Paints Ltd. "Hoyflat"
Leyland Paint Co's. "Leymat" Flat Oil
Mander's "Vernasca"
Murray & Jones "Murjopaque"
I.C.I. (Paints) Ltd. "Supermatt"
Paripen Ltd. "Randall's Flat Oil Paint"
Thos. Parson & Sons, "Unicote" Flat Wall Finish
Smith & Walton's "Hadrian" Flat Oil
United Paint Co's. "Unimatt" Flat Oil
Walpamur's "Muraumatte"
T. & R. Williamson's "Makaurite" Flat Wall Paint
Jenson & Nicholson's "Tintamur" Flat Oil
W. & J. Leigh's "Olinmatt" Flat Oil

STAINS - Generally shall be Creosote conforming to B.S. 144 and preferably obtained from the local gas company.

DISTEMPER (see "Notes") - The colours shall be selected by the S.O. from the range given in B.S. 381 WD.

Distempers shall be one of the following oil bound distempers and shall be mixed according to the manufacturers' instructions, using petrifying liquid where necessary:-

Craig & Rose's "Permادuro"
Dixon's White "Waver"
Docker's "Almega"
R. Gay & Co's. "Walgay"
Goodlass, Wall's "Pintesco"
Hadfield's "Permanox"
Hinshelwood's "Endocora"
British Paints Ltd. "Saneros"
Leyland Paint Co's. "Leytex" Water Paint
Mander's "Aqualine"
Murray & Jones' "Dux"
I.C.I. (Paints) Ltd. "O.W. Water Paint"
Paripen's "Randall's Water Paint" or
Thos. Parson & Sons, "Parlyto" Water Paint
Smith & Walton's "Hadrian" Water Paint
United Paint Co's. "Hydrome" Water Paint
Walpamur Co's "Walpamur"
T. & R. Williamson's "Abbestun" Water Paint
Jenson & Nicholson's "Aquatinta"
W. & J. Leigh's "Velascol" Water Paint

FIRE RESISTING PAINT (see "Notes") - Shall be obtained from an approved manufacturer and shall conform to B.S./A.R.P.39.

HEAT RESISTING PAINT - Shall be of a type suitable for the maximum temperatures it will be called upon to withstand.

PAINTING GENERALLY - The contents of the cans to be thoroughly stirred prior to pouring into kettles.

All coats of new paint to be thoroughly dry before the application of any subsequent coat.

No paint is to be applied on external work during foggy or inclement weather, nor to any surface upon which there is moisture.

All work to be thoroughly rubbed down between each coat and stopped and/or facced up as necessary.

Finishing coats to be full gloss unless otherwise directed.

No work to be stippled unless so specified.

The application of paint by means of spraying machine will not be allowed.

PRIMING - All priming to be executed with the appropriate priming made by the firm from which all other paints will be obtained.

Woodwork - to be knotted with best Shellac Knotting (2 coats) and primed on all faces, including those bedded in, by painter at joiner's shop after inspection and before delivery.

Iron and Steel Work - all ironwork (except structural steel to be encased in concrete, also metal windows) whether delivered primed or unprimed to be thoroughly cleaned down and wire brushed and scraped as necessary to remove all rust and loose scale and primed on site before or after fixing as specified or directed.

Enamelled Conduits, etc. - to be primed with one coat of aluminium paint.

Plaster. Walls and ceilings in Keenes where specified to be painted to be primed with "Sharp" priming applied "following the trowel".

Work finished in lime plaster or Portland Cement to be primed with the special priming prepared by the Manufacturers for new lime plaster or new Portland Cement.

METAL WORK - Hot water pipes and Radiators - prepare, prime and paint two coats with special heat resisting quality paint after fixing.

Enamelled Conduits to be painted in with the surfaces to which they are attached.

Coated C.I. Pipes which are to be painted to have one coat of Best Shellac Knotting and to be painted two coats.

PLASTER WORK - Wall surfaces behind radiators to be decorated with the radiators in position.



Pre 1950 Photograph