

**Schedule of Repairs
The Balcony at
The Royal Apartments,
Sea Front,
Hayling Island,
PO11 0AD**

September 2023

**Prepared for
Havant Borough Council,
Civic Centre Road,
Havant,
PO9 2AX.**



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Surveying - Architectural - Historic Building -
Consultancy

Item no	Description	£
1	SCOPE OF WORKS	
	This schedule of reflects the wants of repair highlighted in a recent condition survey In summery the works include the following –: - Minor repairs to the leadwork of the roof covering - Maintenance repairs to the rainwater goods - Replace to timber members, both structural & decorative - Structural strengthening of the roof structure - Structural repair to the balcony deck - Repairs to metal colonnades balustrades & handrails - General preparation & decoration The descriptions given are looking directly at the balcony with the sea behind the viewer. The property is a grade II listed building; the contractor is reminded that unauthorized works to a listed building can lead to enforcement and even prosecution.	
2	PRELIMINARIES	
	A copy of the approved schedule & drawings (preferably laminated version) are to be kept on site at all times, together with safety data sheets, COSHH details & manufactures instructions. The relevant work sections are to be read by the tradesman prior to commencing. Risk assessments & method statements to be provided by the contractor. Contractor to provide upon request copies of all insurances. Minimum public liability cover to be 2 million pounds for each & every claim, with 10 million employer's liability. Contractor to take out a joint names insurance policy for the duration of the works. No hot works, including burning, heat guns, disk cutting, soldering to be undertaken without prior approval & the issuing of a Hot Works Permit. No high temperature halogen lights are to be used only fluorescent or LED lighting to be used for temporary works. Any scaffolding to be earthed bonded. Lighting protection not considered necessary as other parts & surrounding structures are much taller than the proposed access scaffold. The tradesmen are to be appropriately skilled & experienced for the type & quality of work required.	

	Areas of uncovering & opening up have been undertaken in a bid to determine the construction & condition of the materials. The findings of these areas are assumed to be indicative to that of the surrounding location. Should at any time during the works, further opening up reveal a difference, the Surveyor & Conservation Officer must be informed before further work proceeds. Report any carpenters marks, masons marks, construction marks or graffiti to the surveyor. Any and all artefacts found during the works and thought to be 'treasure', as defined by the Treasure Act 1996, will be removed from site to a secure store and promptly reported to the appropriate coroner's office. All materials are to be stored & used in accordance with manufacturer's instructions. Use materials in rotation, do not use previously opened materials or ones passed their sell by date without approval. Ensure protective measures are fully compatible & are not prejudicial to the products or materials. Number all removed parts for later re-fixing with waterproof markings on robust tags & wire ties Resin repairs for timber are to be used judiciously Control & Disposal of scrapings, water/washing & Detritus. Collect as arisings accumulated. Do not let block rainwater goods, outlets or gullies. Do not let run down building/structure face or surfaces The contractor is to provide condition / progress photographs as the works proceed. The conservation philosophy of -: • Minimum intervention • Maximum retention of original fabric • Reversibility of works Are to be employed throughout the works. The works to be undertaken using the guidance & recommendations describe within to BS 7913:2013 There is the distinct possibility that lower levels of painted surfaces contain lead base products. Strict adherence to Control of Lead at Work Regulations 1998 SI543, Control of Lead at Work ACOP 1985 Environmental Protection (Duty of Care) Regulations 1992.	
3	SCHEDULE OF WORK	
3.00	Enabling works	
3.0.1	Erect independent scaffold to two sides of rear wing to provide safe	

	working access. NO FIXINGS directly in to the building, NO GLASS to be removed from windows, sash windows may be opened with a temporary screen for scaffold poles to pass through. Make opening secure. Full inspection to take place when scaffold in place, revisions to schedule may be necessary	
3.0.2	Allow temporary protection to ground floor terrace surface Provide temporary protection to entrance doors and all adjacent windows	
3.1	The Works -Lead works	
3.1.1	 Carefully rake out all defective mastic/silicon pointing 25mm deep Carefully rake out all defective mortar joints 25mm deep Fit lead in to open joint min 25mm deep. Fix lead wedge (Hall clips) in to bedjoint at 450mm c/cs and at laps Wet up masonry to receive & fill with soft Type C lime based mortar as described in section 4 below	
3.1.2	Clean out all fractures, splits etc. With a suitable Hot Works Permitt (including method statement minor cracks/split can be soldered or solder wiped 	

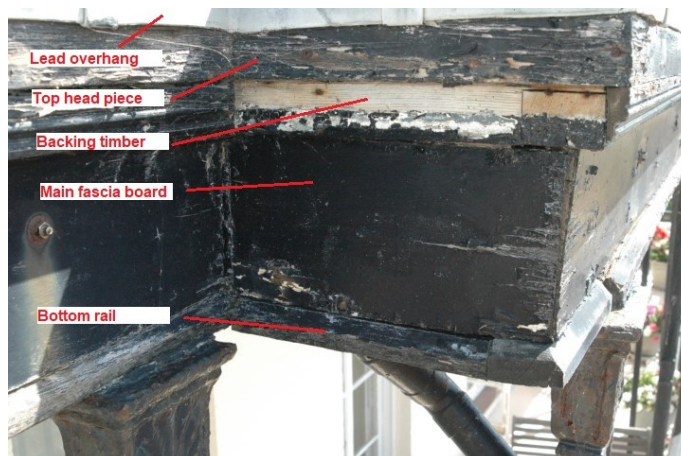
	 Larger splits will require careful cutting out and leadburn in a repair patch. On wall/roof flashings it may be possible to fit a cover flashing over the tear, min wide of new lead 150mm. Fix in to bedjoint as describe in 3.1.1 Code 4 lead for flashings.	
3.1.3	Clean of all lead surfaces, carefully beat back any raised flashings. Apply 2nr coats of patination oil to all lead surfaces	
3.20	Roof Structure viewed from inside the balcony	
3.2.1	  Structural repair -On each side of the central projection resin bolt using M12 stainless steel nuts & bolts min embedment 60mm fix 2nr new treated timber 75 x 200mm C24 grade timber tight to the underside of the lowest rafter (the deep part of the bow) Carefully scribe to a similar sized timber to fit the curve of the bow, siting on top of the straight section, fixed to the wall in the same manor. Use 1 scribed piece for each side of the bow. The right hand side is far worse than the left. Fix head collar 50 x 150mm timber to every other rafter with M12 bolt with tooth plate connectors, secure other end to the new wall plates with metal shoe/clip fully screwed to plate. Option timber soffit can be fitted beneath if required	

Decoration -Scrap back all loose paint from the underside of the walkway and timber structure & thoroughly prepare Fill all redundant service holes. Remove rusty fixings & replace with stainless steel.
Allow for minor timber repairs.
Spot prime bare timber with zinc based primmer, apply 2nr coats of oil based undercoat, followed by oil base finishing coat.



3.3 Top Entablature

Identification of parts.



3.3.1	Left hand return	
3.3.2	 Carefully remove the defective & decayed timbers. Carefully lift lead overhang for access and later redress Replace the top head piece using 45mm deep x 50mm thick treated C24 grade timber (As close to existing as possible). Ensure timber oversails decorative moulding below to give a drip mould Fix new C24 grade treated backing timber (behind moulding) to main board min 45mm deep. To project 20mm over main fascia board Fix new 45mm deep moulding piece on to backing piece with stainless steel pins Fix new main fascia timber min 75mm x 120mm Mitre front corners Fix new bottom rail to have chamfered bottom edge to displace water	
3.40	Main left hand front section	
3.4.1	 Carefully remove the defective & decayed timbers. Carefully lift lead overhang for access and later redress Replace the top head piece using 45mm deep x 50mm thick treated C24 grade timber (As close to existing as possible). Ensure timber oversails decorative moulding below to give a drip mould Fix new C24 grade treated backing timber (behind moulding) to main board min 45mm deep. To project 20mm over main fascia board Fix new 45mm deep moulding piece on to backing piece with	

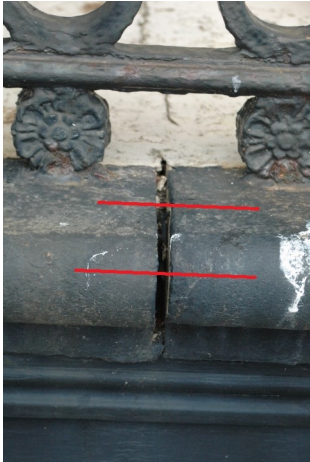
	stainless steel pins Fix new main fascia timber min 75mm x 120mm Mitre front corners Fix new bottom rail to have chamfered bottom edge to displace water	
3.50	Short left hand return	
3.5.1	 Carefully remove the defective & decayed timbers. Carefully lift lead overhang for access and later redress Replace the top head piece using 45mm deep x 50mm thick treated C24 grade timber (As close to existing as possible). Ensure timber oversails decorative moulding below to give a drip mould Fix new C24 grade treated backing timber (behind moulding) to main board min 45mm deep. To project 20mm over main fascia board Fix new 45mm deep moulding piece on to backing piece with stainless steel pins Fix new main fascia timber min 75mm x 120mm Mitre front corners Fix new bottom rail to have chamfered bottom edge to displace water	
3.60	Centre Front Projection	
3.6.1	 Carefully remove the defective & decayed timbers. Carefully lift lead overhang for access and later redress Replace the top head piece using 45mm deep x 50mm thick treated C24 grade timber (As close to existing as possible). Ensure timber oversails decorative moulding below to give a drip mould	

	Fix new C24 grade treated backing timber (behind moulding) to main board min 45mm deep. To project 20mm over main fascia board Fix new 45mm deep moulding piece on to backing piece with stainless steel pins Fix new main fascia timber min 75mm x 120mm Mitre front corners Fix new bottom rail to have chamfered bottom edge to displace water	
3.70	Short Right Hand Projection	
3.7.1	 Carefully remove the defective & decayed timbers. Carefully lift lead overhang for access and later redress Replace the top head piece using 45mm deep x 50mm thick treated C24 grade timber (As close to existing as possible). Ensure timber oversails decorative moulding below to give a drip mould Fix new C24 grade treated backing timber (behind moulding) to main board min 45mm deep. To project 20mm over main fascia board Fix new 45mm deep moulding piece on to backing piece with stainless steel pins Fix new main fascia timber min 75mm x 120mm Mitre front corners Fix new bottom rail to have chamfered bottom edge to displace water	
3.80	Main Right Hand Front Away from Projection	
3.8.1	 Carefully remove the defective & decayed timbers, sound timber in fascia to remain. Carefully lift lead overhang for access and later	

	redress Replace the top head piece using 45mm deep x 50mm thick treated C24 grade timber (As close to existing as possible). Ensure timber oversails decorative moulding below to give a drip mould Fix new C24 grade treated backing timber (behind moulding) to main board min 45mm deep. To project 20mm over main fascia board Fix new 45mm deep moulding piece on to backing piece with stainless steel pins Sound parts of existing fascia to remain, scarf in new sections of timber min 75mm x 120mm Mitre front corners Fix new bottom rail to have chamfered bottom edge to displace water	
3.9	Right Hand Return	
3.9.1	 Carefully remove the defective & decayed timbers. Carefully lift lead overhang for access and later redress Replace the top head piece using 45mm deep x 50mm thick treated C24 grade timber (As close to existing as possible). Ensure timber oversails decorative moulding below to give a drip mould Fix new C24 grade treated backing timber (behind moulding) to main board min 45mm deep. To project 20mm over main fascia board Fix new 45mm deep moulding piece on to backing piece with stainless steel pins Fix new main fascia timber min 75mm x 120mm Mitre front corners Fix new bottom rail to have chamfered bottom edge to displace water	

3.10	Rainwater Goods	
3.10.1	Clean out all pipes, gullies etc., ensure they are free flowing	
3.11	Upper Cast Stanchions	
3.11.1	Prepare metal work with light abrasion by bronze wire brush to remove all loose/flaking paint. Chipping hammers to remove laminated rust may be used with CARE Fill all larger holes, fractures, crevice corrosion at joints by Brazing. Reinforce all corroded previous weld joints. Small pin holes & the like can be filled with metal putty Cold metal stitching as an alternative method where suitable for thicker cast sections Hot works permit required. Prime bare patches with zinc based primer. Paint the capitol heads with two-pack epoxy paint. Ideally the whole stanchion should receive the same paint system, but for reasons of economy apply 2nr oil based undercoat, followed by oil base finishing coat in black beneath the capitol heads.	

3.12	Balustrades & Handrails	
3.12.1	Prepare metal work with light abrasion by bronze wire brush to remove all loose/flaking paint. Chipping hammers to remove laminated rust may be used with CARE   Fill all larger holes, fractures, crevice corrosion at joints by Brazing. Reinforce or replace all corroded previous weld joints. Allow for additional metal straps, (plating) and bolting for strengthening fractures. Plates to be shaped to the rear or underside of the parent metal, drill & tapped countersunk screws to be used  Small pin holes & the like can be filled with metal putty Sections of the bottom rail require replacement, size to match as close as is possible from stock sizes. New material can be galvanized mild steel with bolted connections with an isolation strip between the different metals. Cold metal stitching as an alternative method where suitable for thicker cast sections	

	Ensure all balustrade to stanchion and handrail to stanchion connections are sound, with brazing or strap in fills as noted above Hot works permit required. Prime bare patches with zinc based primer. Two-pack epoxy paint is preferred but - Apply 2nr oil based undercoat, followed by oil based finishing coat in black beneath the capitol heads. Remove decayed curved sections of timber handrails. Copy section profile & dimensions for new insertion sections. Fix to existing handrail with mortice cut in to underside of timbers and metal pin resined in to place. 	
3.13	Floor Deck	
3.13.1	Scrap back loose paint & wash out debris from cracks Wide Cracks Carefully cut out mortice chases at 90° to the fracture, typically at 300mm c/cs say 200mm long to receive cementitious grout bedding for stainless steel Heli-bar (or similar) further application of cementitious grout as encapsulation. Point over with lime base mortar as section 4 below 	

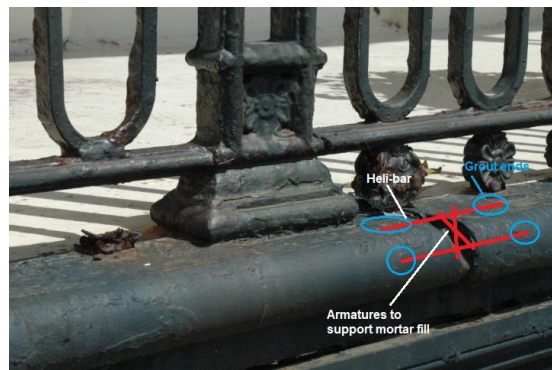
Narrow Cracks



Carefully stitch drill cracks and wash out debris. Injection epoxy resin in to stitch drill holes.

Missing sections on front bulnose

Clean & prepare any embedded metal, treat with rust inhibitor and a coat of micaceous iron oxide paint
Carefully cut out mortice chase in the top face at 90° to the gap say 200mm long to receive cementitious grout bedding as anchor points for stainless steel Heli-bar (or similar) armature further application of cementitious grout as encapsulation of anchor points.
Prime stonework faces with wash of lime putty to help bond the mortar. Fill the centre missing stonework with with lime base mortar using an NHL5 as section 4 below. Allow for local formwork & moulding up in stages as necessary



Existing fill falling out at joints -

Carefully rake out loose cement filler, wash out joint, prime stonework faces with wash of lime putty to help bond the mortar. Fill the centre missing stonework with with lime base mortar using an NHL5 as section 4 below. Ram well home and thoroughly compact. Allow for local formwork & moulding up in stages as necessary



	Thorough prepare the black painted front edge, apply anti-fungicide and stabilizing solution before applying Keim mineral paint to manufactures instructions.	
3.14	Lower Entablature	
3.14.1	 Carefully remove all plywood capping face top moulding and soffit board. Scrap back any moss on remaining timber, apply a coat of anti-fungicide to these affected areas. (main timbers found to be sound). Refix the top moulding, scarf in new sections as required. Screw fix a new fascia of 12.5mm Fermacell board directly to the main timbers. Scribe board over the mushroom heads of the lower colonnade heads. This is to be a sacrificial strip intended for future removal in this hostile marine environment. This board is to project below the bottom soffit section to protect the soffit junction with the main timbers form a drip mould. ie over 225mm in depth. Cut the front bulnose of the soffit off and screw fix to the underside of the main timbers. Its front face now protected by the extended fascia board. Decorate the timber and Fermacell board as below.	
3.15	Soffit to the first floor deck	
3.15.1	 Scrap back all loose paint from the underside of the walkway and timber structure & thoroughly prepare Fill all redundant service	

	holes. Remove rusty fixings & replace with stainless steel. Allow for minor timber repairs. Spot prime bare timber with zinc based primer, apply 2nr coats of oil based undercoat, followed by oil base finishing coat.	
3.16	Ground Floor Colonnade	
3.16.1	Remove all loose cement grout/fill from the pilasters/wall junction. Fill the gap between pilaster & masonry with neoprene/EPDM compressible strip, as as gap is tightly filled. Wide gaps use compressible fill as a backing piece & point up with lime based mortar  Prepare metalwork with light abrasion by bronze wire brush to remove all loose/flaking paint. Chipping hammers to remove laminated rust may be used with CARE  Fill all larger holes, fractures, crevice corrosion at joints by Brazing. Small pin holes & the like can be filled with metal putty Prime bare patches with zinc based primer. Ideally paint all with two-pack epoxy paint, but for reasons of economy apply 2nr oil based undercoat, followed by oil base finishing coat in black	
3.17	Terrace	
3.17.1	Rake out defective & loose grout. Lift loose & rocking tiles.	

	Rebed loose tiles on tile adhesive dab mix to fully secure tiles Re-grout joints with grey waterproof grout.	
4.0	Materials & Workmanship	
4.0.1	Re-pointing repairs: BS EN 459 for lime BS 1200 for aggregate Cut out sections of defect with a quirk & hammer, do not use a disk cutter. Mortar joints cut out to a depth 2.5 times that of the width of the joint. Clean out with a Hoover & wash out with clean water. Thoroughly wet brickwork (do not saturate floor or adjacent timbers) mortar to be Type C 1:2 .5 mix of St Astier NHL 3,5 lime with “sharp” sand well graded typically Wareham Washed (course 3.35 to 0.075mm) Do not use a fine sand. Mix to be consistency of modelling clay, do not over wet the mix. Place in mortar & firmly compress, ensuring good compaction by using a churn brush. Do not work or strike off until next day. Apply light periodic spray to aid carbonation. Cover & protect from frost, wind or strong sun light. Next day strike & clean off. For front bulnose of balcony deck use 1:2 .5 mix of St Astier NHL 5 lime with “sharp” sand well graded typically Wareham Washed (course 3.35 to 0.075mm) Cement, bonding agents or other admixtures are NOT to be used	
4.0.2	Heli-Bar type repairs Austenitic Stainless steel 316 grade min 6mm dia bars HeliBond Cementitious grout Resin Thor Helical epoxy resin	
4.0.3	Timber repairs : • Minimum amount of cutting out. • NO straight butt joints to be used • Resin repairs for timber are to be used judiciously • Replace with same timber species to that of original. • Moisture content to be the same or less than existing timber. (below 18%) • Joinery timber to be fitted in same direction of existing grain. • New structural timber to be seasoned & treated with preservative accordance with BWPDA spec 8 – general timber. • Apply 2 flood coats to timbers exposed by cutting or drilling. • Coach bolts to BS 4933 • HSFG bolts to BS 4390 • Nails to BS 1202 min 40mm long, min 3mm dia, in stainless steel. • Screws to BS 1210 for timber to timber connection min gauge 8 & 40mm long in stainless steel • Screws to masonry to be min 63mm long, 4.8mm dia in	

	stainless steel. • All softwood timber to be strength class C24 as BS EN 338 • Structural use of timber to BS 5268-2	
4.0.4	Stainless steel to be Grade 316	
4.0.5	Lime, sand & lime available from -: The Lime Centre, Hursley Road, Winchester	
4..0.6	The works to be undertaken using the guidance & recommendations describe within to BS 7913:2013 Workmanship to BS8000	

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	TOTAL	

Total EX VAT.....

VAT element @ 20%.....

Total.....

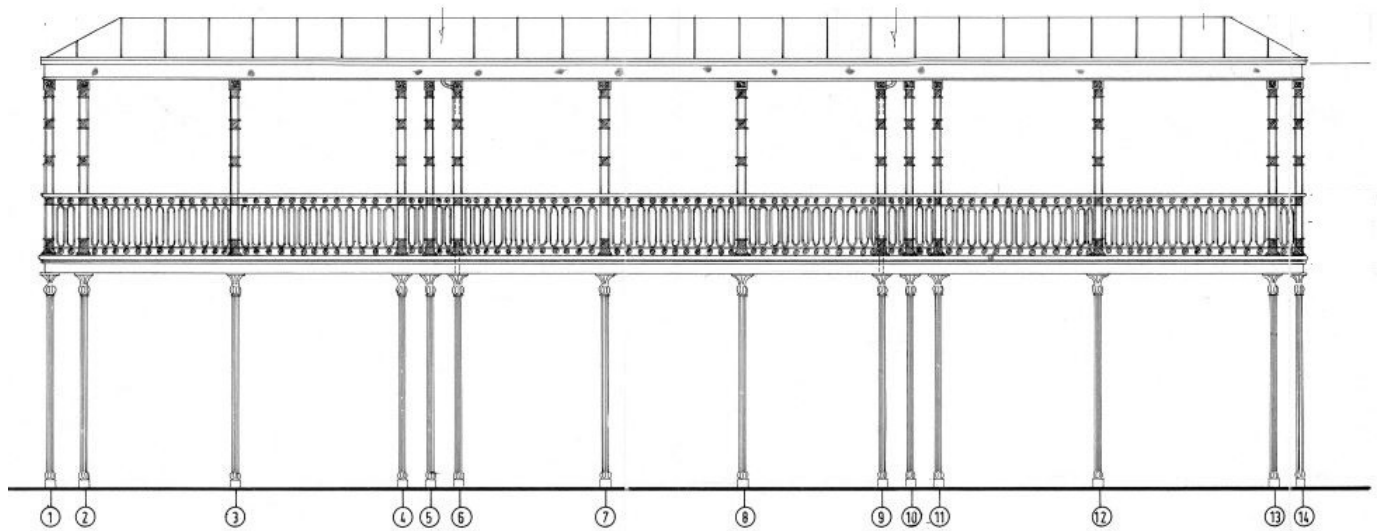
Signed.....

On behalf of.....

Dated.....

Appendix

Elevation of balcony for identification purposes



BALCONY ELEVATION.