



IZIKO OLD TOWN HOUSE

REQUEST FOR QUOTE

**DESCRIPTION OF THE WORKS AND TECHNICAL SPECIFICATIONS FOR REPAIRS
& MAINTENANCE TO ROOF, AND VARIOUS INTERNAL UPGRADES**

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ISSUE DATE: AUGUST 2024



DESCRIPTION OF THE WORKS AND TECHNICAL SPECIFICATIONS FOR REPAIRS & MAINTENANCE TO ROOF, AND VARIOUS INTERNAL UPGRADES

Iziko SA Museum

1. Property Identification & Background



Address: 149 Longmarket St, Cape Town, 8001

Erf Numbers: Erf 2433

Ownership: Department of Public Works

Heritage grading: Graded II (provincial heritage sites of high significance).

Purpose:

The purpose of this report is to provide a detailed scope of work for the work to be executed at the Michaelis Art Collection Museum.

Background:

The Michaelis Art Collection Museum is 257 years and is listed by the Heritage Western Cape (HWC) as a heritage resource. The HWC will need to be notified of the intended work and will issue a permit with certain conditions and may also inspect the work from time to time. Only the specified materials and techniques may be used and any deviation from these specifications must be presented to the Principal Agent and Project Manager for approval prior to the commencement of the work.

Programming Challenges:

- Attention must be paid to prioritized work listed in this document
- The contractors programme must indicate where project components can run concurrently.
- The programme dates to take the Iziko Planning Schedule into consideration as public events may interfere with access to certain parts of the building.
- The successful bidder must provide a project plan to the Project Manager.

DESCRIPTION OF THE WORKS AND TECHNICAL SPECIFICATIONS FOR REPAIRS & MAINTENANCE TO ROOF, AND VARIOUS INTERNAL UPGRADES



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SECTION 1:

DESCRIPTION OF THE WORKS AND TECHNICAL SPECIFICATIONS FOR: REPAIRS & MAINTENANCE TO ROOF

Supplementary Documents
Annexure A: Roofscape replace and repair
Plans with dimensions and areas

DESCRIPTION OF THE WORKS AND TECHNICAL SPECIFICATIONS FOR REPAIRS & MAINTENANCE TO ROOF, AND VARIOUS INTERNAL UPGRADES

Figure 1:

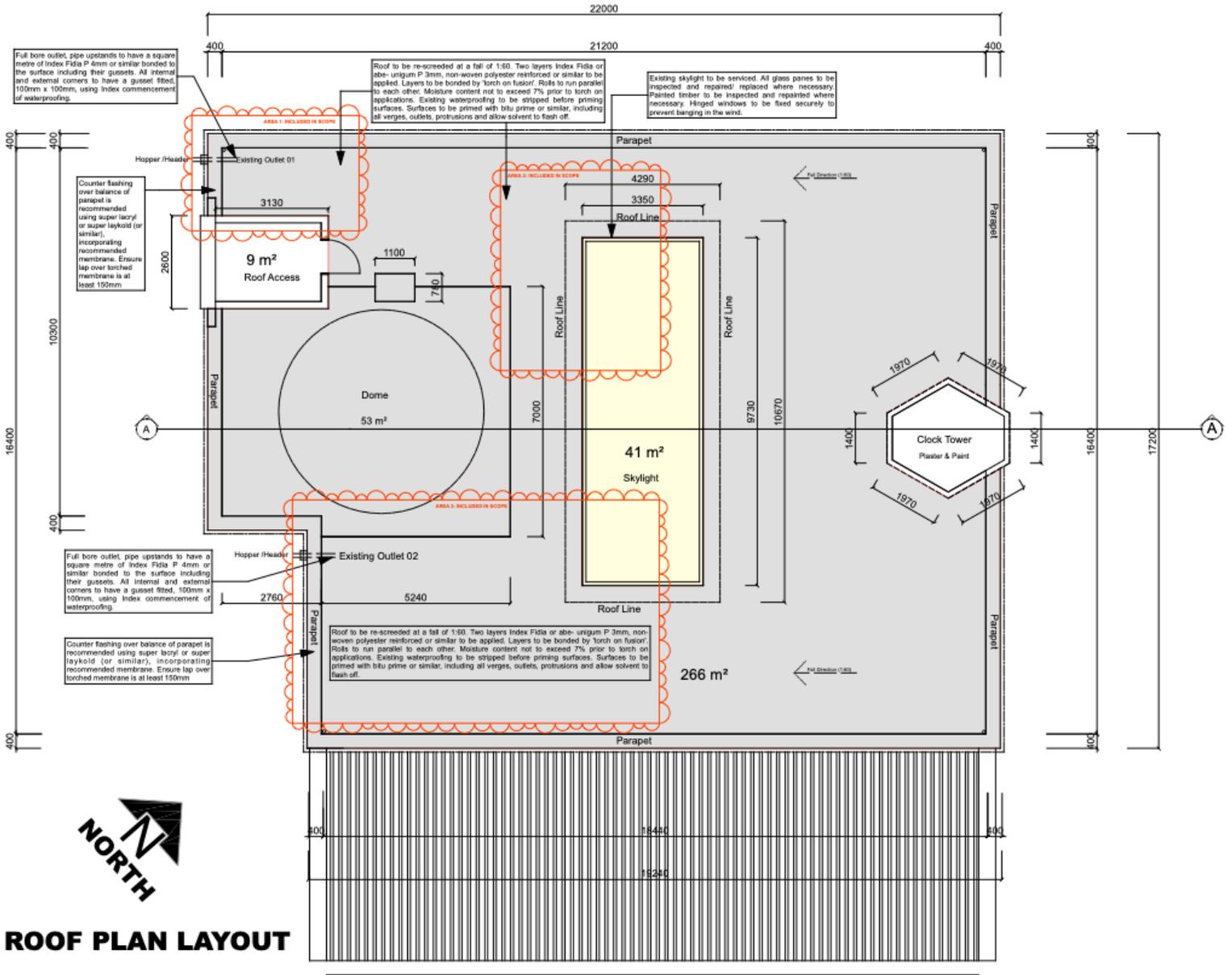


Figure 1: Roof Plan Layout proposing maintenance and repairs in specific areas (see Annexure A).

DESCRIPTION OF THE WORKS AND TECHNICAL SPECIFICATIONS FOR REPAIRS & MAINTENANCE TO ROOF, AND VARIOUS INTERNAL UPGRADES

Figure 2:

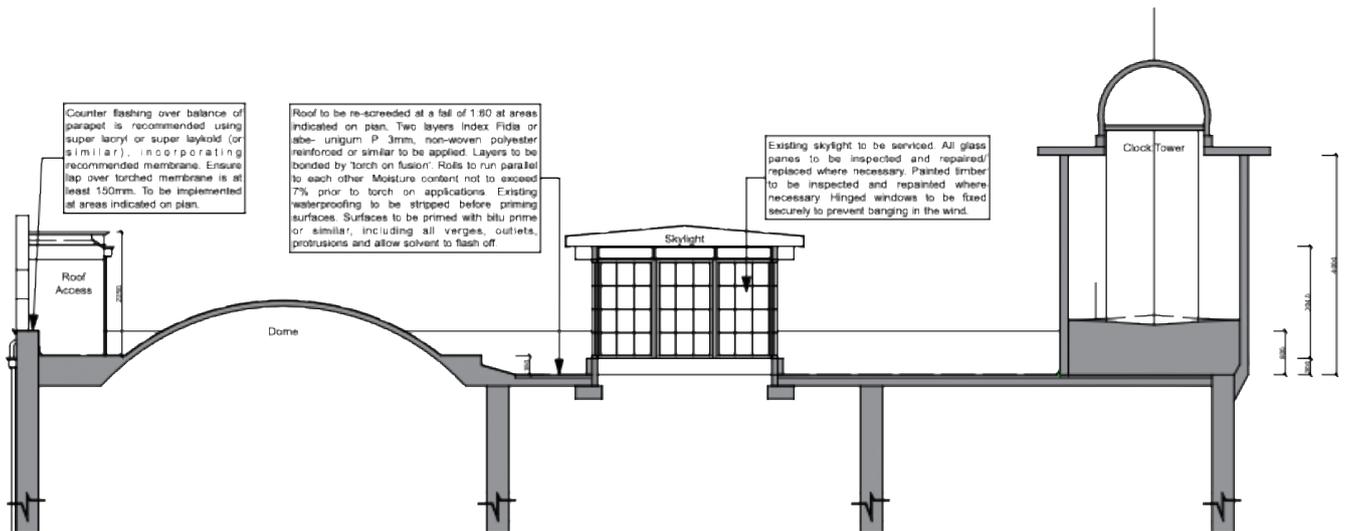


Figure 2: Roof Section proposing maintenance and repairs in specific areas (see figure 1) (see Annexure A).

ROOF AREA: GREY (fig 1)

A. EXTERIOR CONDITION ASSESSMENT:

1. Concrete Flat Roof, Flashing and Parapet: The roof leak is the primary issue of concern. This was identified due to several factors relating to design and maintenance issues. Upon inspection, the following were identified:

1. The roof is covered in bituminous Malthoid waterproofing over an insufficiently sloped screed to two outlets. The slope runs from the front of the building (northeast) toward the back (Courtyard), where the two outlets are situated. The waterproofing is taken up over the parapets. The parapet was recently painted in 2021; however, this is not the case for the rest of the roof. The latter was not included in the scope of work for reasons unknown at this stage.
2. The screed's insufficient slope causes rainwater to gather in areas, creating a ponding effect due to the lack of suitable drainage.
3. Insufficient outlets and downpipes prevent the roof from draining fast enough. In addition, some of the downpipes are disconnected from the outlets, causing rainwater to run down the walls and seep into the building. Areas around the outlet pipes need to be examined, as not all the water exits through the outlets.
4. Cracks are visible in the waterproofing as well as the overlapping seams.

The covered waterproof junction between the parapets/upstand and roof appears to be debonding, further exacerbating water seeping through the seam.

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Item	Condition Assessment	Photo
1	<p>Pooling of stormwater due to poor/ inadequate drainage on the north-western corner of the roof. (Area 1 – see fig.1) Screed fall towards the outlet and waterproofing overlaps needs to be assessed and repaired.</p>	
2	<p>Pooling of stormwater due to poor/ inadequate drainage on the Southern corner of the roof. Damage is caused internally in the stairwell as a result. (Area 3 – see fig.1) Screed fall towards the outlet and waterproofing overlaps needs to be assessed and repaired.</p>	
3	<p>Pooling of stormwater due to poor/ inadequate drainage on the north- western side of the roof. (Area 2 – see fig.1) Screed fall towards an outlet and waterproofing overlaps needs to be assessed and repaired.</p>	

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4	<p>Pooling of stormwater on the roof due to poor/ inadequate drainage surrounding the skylight. (Area 2 – see fig.1) Screed fall towards an outlet and waterproofing overlaps needs to be assessed and repaired.</p>	
5	<p>Pooling of stormwater on the roof due to poor/ inadequate drainage surrounding the skylight. (Area 3 – see fig.1) Screed fall towards an outlet and waterproofing overlaps needs to be assessed and repaired.</p> <p>Debris has been left from previous maintenance. Debris to be cleared away.</p>	
Renovation Instruction		
See Renovation Instruction and Notes outlined below in part B.		

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Surface Areas Summary:

Total roof area: **266m²**

Approximate roof surface area included in scope: **80m²**

Total parapet area: **30m²**

Approximate parapet (and parapet to dome) surface area included in scope: **14m²**

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B. RENOVATION INSTRUCTION:

Concrete Roof, Parapet, Flashing:

Refer to Items 1 – 5 in the above table.

Parapet wall coverings:

Refer to Items 1 & 2 in the above table.

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DESCRIPTION OF THE WORKS AND TECHNICAL SPECIFICATIONS FOR REPAIRS & MAINTENANCE TO ROOF, AND VARIOUS INTERNAL UPGRADES

C. RENOVATION INSTRUCTION NOTES:

NOTE: After removal of existing waterproofing and prior to application of new waterproofing, any damage to the surface of the concrete roof must be reported to and inspected by an engineer to determine if any repairs are required.

NOTE: All electrical components, such as conduits, wiring and boxes that need to be removed for roof repairs must be done by a qualified electrician. All electrical components removed must be reinstated or replaced by a qualified electrician and certified as compliant.

NOTE: Any wiring or cables to be removed and the extent of removal must be confirmed/ approved by Head of Maintenance at Iziko Museums of South Africa- Frederick Paynter.

NOTE: All mechanical equipment that needs to be removed for roof repairs must be done by a qualified mechanical engineer. All mechanical equipment removed must be reinstated or replaced by a qualified mechanical engineer and certified as compliant.

NOTE: Debris evident on roof from previous roof repairs. Debris such as leftover waterproofing membrane left under mechanical services on this roof to be removed.

NOTE: THE SCOPE OF WORK APPLIES ONLY TO THE AREAS DEMARCATED IN RED BUBBLE CLOUDS ON PLAN IN FIGURE 1.

PREPARATION:

1. Remove existing water proofing off the entire surface of roof including parapet walls, upstands, dome etc.
2. Remove existing screed
3. Check existing concrete slab for damages including cracks, holes, wearing of expansion joints and other defects such as water penetration etc and make allowance for repairs. Concrete surface to have a light steel trowelled or fine wood float finish.
4. Surface Preparation of concrete slab: surface areas should be cleaned, dry and sound.

APPLICATION:

1. Screeds

1.1 Apply new screed and create coves around all parapet walls and upstand beams. Screeds are to be sand cement laid to a minimum fall of 1:60, and the strength and thickness are to the engineer's or later specifications. The moisture content is not to exceed 7% before torch-on applications. Special care must be given to all expansion/ construction joints.

1.2 Counter flashing over the balance of the parapet is recommended using a super laykold incorporating ABE membrane or similar. Ensure the lap over the torched membrane is at least 150mm.

2. Priming

2.1 New roof—Prime all surfaces with it prime or similar, including all verges, around outlets, and protrusions, and allow the solvent to flash off. Highly porous surfaces should be re-primed.

2.2 Rejuvenation—Strip existing waterproofing before priming all surfaces with bitumen primer or similar product, including all verges, around outlets and protrusions, and allowing the solvent to flash off. Some existing waterproofing materials may only be overlaid in consultation with the technical representative..

SPECIFICATION:

3. Parapets

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3.1.1 Full bore outlets and pipe upstands must have a square meter of Index Fidia P4mm or similar product bonded to the surface, including their gussets. All internal and external corners must have a 100mm x 100mm gusset fitted using Index Fidia P4 mm before the commencement of the waterproofing application.

3.1.2 Apply the first layer of Ubdex Fidia, ABE unigum P 3mm, or similar non-woven polyester-reinforced product.

3.1.3 Apply the second layer, Index Fidia or ABE unigum MS 4,5kg, non-woven polyester reinforced, on top of the first layer, ensuring both layers are fully bonded by the means of 'torch-on fusion' using propane gas, having side and end laps of 100mm and 150mm respectively.

3.1.4 The membrane will be placed in the correct torching position and then re-rolled for about half its length without changing its orientation.

3.1.5 The membrane will be unrolled and torched, pressing the melted area against the substrate.

3.1.6 The process will be repeated until the entire membrane is firmly bonded onto the surface. Then, the second membrane will be laid in the same way with an overlap of 150mm at the end and 100mm at the side

3.1.7 An extra minimum of 300 mm of the horizontal membrane shall be left to carry up the vertical surface to maintain membrane continuity and be protected as above.

4. Vertical areas (upstands):

4.1 Index Fidia or ABE unigum P 3mm or similar non-woven polyester reinforced membrane shall be applied to all vertical surfaces.

4.2 Second layer Index Fidia or ABE unigum P 3mm or similar non-woven polyester reinforced membrane shall be applied on top of the first layer.

4.3 The extra 300mm of the horizontal membrane left shall be turned up and wrapped onto the vertical primed surfaces. Minimum laps of 150mm shall maintain the continuity of the membrane.

4.4 The membrane on the exposed external vertical surfaces shall be carried up to a reasonable height above the finished ground level- (i.e. parapet, etc.) and tucked into a continuous groove provided for the same and secured firmly with an approved sealant.

4.5 All membrane areas exposed above the ground shall be protected with appropriate flashing.

5. Flashing

5.1 Counter flashing over the balance of the parapet is recommended using super lacryl or superlaykold incorporated membrane or similar. Ensure the lap over the torched membrane is at least 150mm.

6. Protection layer

6.1 All plain exposed surfaces must be treated with two coats of silvakote or a similar product as a protective layer against UV rays. The coating should be applied six to eight weeks after the torching process to allow the surface to oxidise slightly, thus providing good adhesion to the coating.

GENERAL:

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A 10-year guarantee must be provided, which must be underwritten by ABE/ Derbigum Construction Chemicals Limited (or an equally approved selected service provider). Special care must be given to all expansion/ construction joints. Refer to your ABE/ Derbigum Technical Representatives for specific details. All products are to be applied by the manufacturer's instructions. Data sheets are to be read carefully for additional information. (or equally approved selected service provider).

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ROOF AREA: YELLOW (fig 1)

A. EXTERIOR CONDITION ASSESSMENT:

1. Timber Clerestory Roof Light: Upon inspection, the condition of the clerestory skylight has deteriorated due to a general lack of maintenance and weathering. The roof of the clerestory skylight seems to be a timber board structure with waterproofing. The eaves look like painted Nutec boards and are in a reasonable condition with no external signs of rotting or distress.

Item	Condition Assessment	Photo
6	<p>Panes of glass have broken due to impact of hinged window banging against frame in wind. Windows to be assessed with glass panes to be repaired/ replaced where necessary.</p> <p>Hinged windows to be fastened/ fixed to frames to prevent glass panes breaking.</p>	
7	<p>Panes of glass have broken due to impact of hinged window banging against frame in wind. Windows to be assessed with glass panes to be repaired/ replaced where necessary.</p> <p>Hinged windows to be fastened/ fixed to frames to prevent glass panes breaking.</p>	
Renovation Instruction		
See Renovation Instruction and Notes outlined below in part B.		

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Clerestory size: 40m²

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B. RENOVATION INSTRUCTION:

1. Timber Clerestory Roof Light:

Refer to Items 6 & 7 in the above table.

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C. RENOVATION INSTRUCTION NOTES:

NOTE: After removal of existing waterproofing and prior to application of new waterproofing, any damage to the surface of the concrete roof must be reported to and inspected by an engineer to determine if any repairs are required.

NOTE: All electrical components, such as conduits, wiring and boxes that need to be removed for roof repairs must be done by a qualified electrician. All electrical components removed must be reinstated or replaced by a qualified electrician and certified as compliant.

NOTE: Any wiring or cables to be removed and the extent of removal must be confirmed/ approved by Head of Maintenance at Iziko Museums of South Africa- Frederick Paynter.

NOTE: All mechanical equipment that needs to be removed for roof repairs must be done by a qualified mechanical engineer. All mechanical equipment removed must be reinstated or replaced by a qualified mechanical engineer and certified as compliant.

NOTE: Debris evident on roof from previous roof repairs. Debris such as leftover waterproofing membrane left under mechanical services on this roof to be removed.

SPECIFICATION:

1. PREPARATION

- 1.1. Entire clerestory roof light to be inspected for broken glass panes; hinged window frames that are unfastened; and window frames in a poor condition.
- 1.2. Renovate window frames in poor condition as per paragraph 2 below
- 1.3. Renovate unfastened window frames as per paragraph 3 below
- 1.4. Renovate broken window panes as per paragraph 4 below

2. EXTERNAL PREVIOUSLY PAINTED TIMBER WINDOW FRAMES:

2.1 Surface preparation for frames in poor condition:

2.1.1. Hole & defects – interior & exterior:

Fill holes and defects using Polycell Polyfilla Mendall 90, or equivalent, working off smoothly while wet. Allow 8 hours to dry. Sand to a smooth finish. (Solid Colour Finish).

2.1.2. General wood preparation:

Ensure surfaces are clean, sound, and dry. To determine the moisture content, use a Doser Hygrometer scale A1-A5 (or equivalent) depending on generic wood type. Measurements should be <14 % before painting. Sand wood with 120 grit paper and finish off with 220 grit paper in the direction of the grain. Dust off.

2.2 Application:

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2.2.1. Primer:

Apply one coat of Plascon Wood Primer, or equivalent, to achieve a continuous film. Allow 16 hours to dry. (Solvent based topcoat)

2.2.2. Under coat:

Apply one coat of Plascon Professional All Purpose Undercoat, or equivalent, to achieve a continuous film. Allow 16 hours to dry.

2.2.3. Fishing coat:

Apply two full coats of Professional Gloss Enamel, or equivalent, to achieve complete obliteration, allowing 16 hours drying between coats.

3. WINDOW FRAME FASTENING/ FIXING:

3.1. Fix stainless steel door lock hooks, or equivalent stays/ latches, to the timber clerestory structure on each side of window, to secure and fasten the window frame to the clerestory structure.

4. WINDOW PANE REPLACEMENTS:

4.1. Remove broken window pane and the putty surrounding the specific pane and replace neatly with equivalent pane and putty.

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ANNEXURE A:

DESCRIPTION OF THE WORKS AND TECHNICAL SPECIFICATIONS FOR REPAIRS & MAINTENANCE TO ROOF, AND VARIOUS INTERNAL UPGRADES



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SECTION 2:

DESCRIPTION OF THE WORKS AND TECHNICAL SPECIFICATIONS FOR: REPAIRS & MAINTENANCE TO INTERIOR DAMAGE & ISSUES

Supplementary Documents
Annexure B: Plans with dimensions and areas

DESCRIPTION OF THE WORKS AND TECHNICAL SPECIFICATIONS FOR REPAIRS & MAINTENANCE TO ROOF, AND VARIOUS INTERNAL UPGRADES

Figure 3:

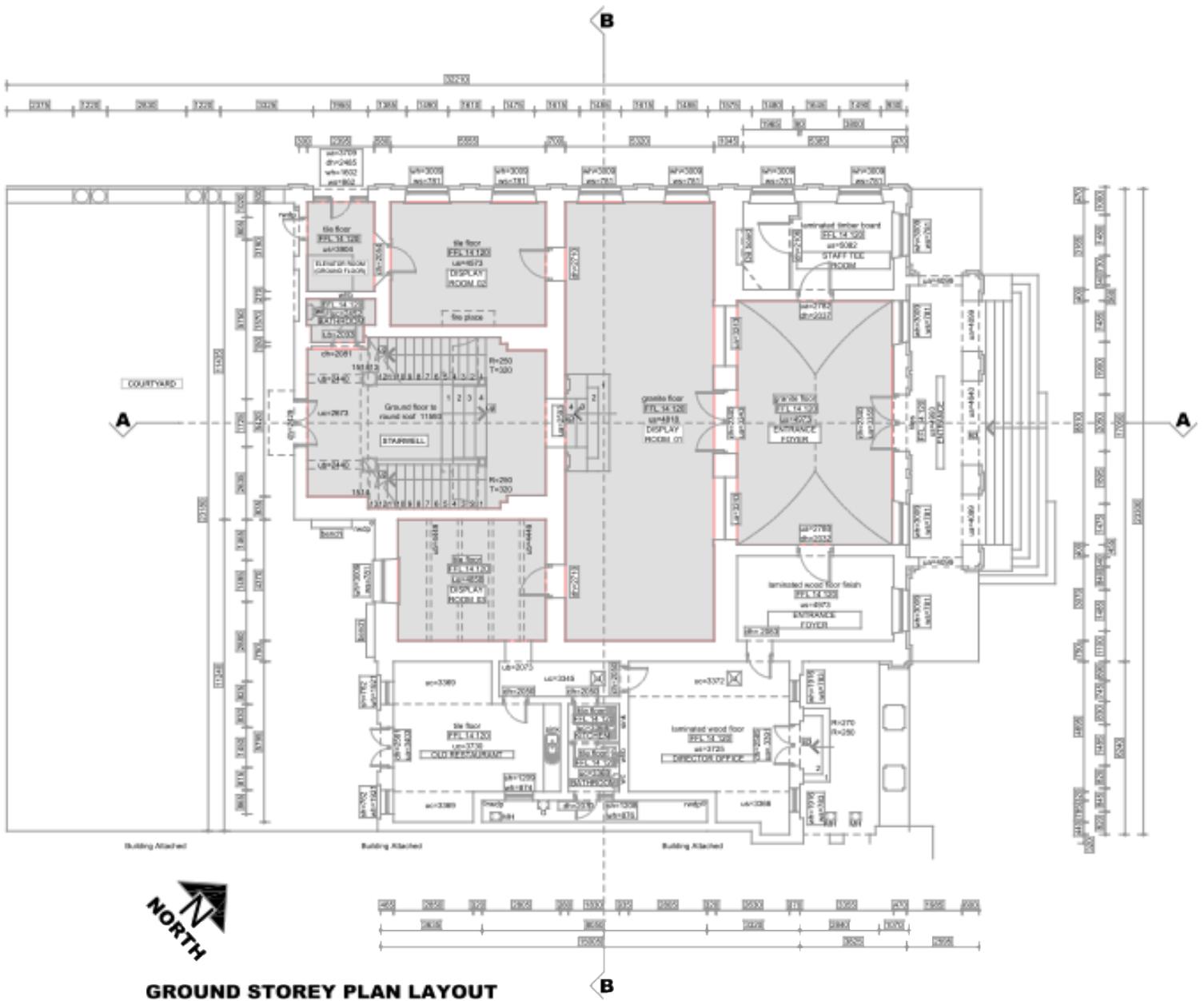


Figure 3: Ground Storey Plan at the Iziko Old Town House.

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Figure 4:

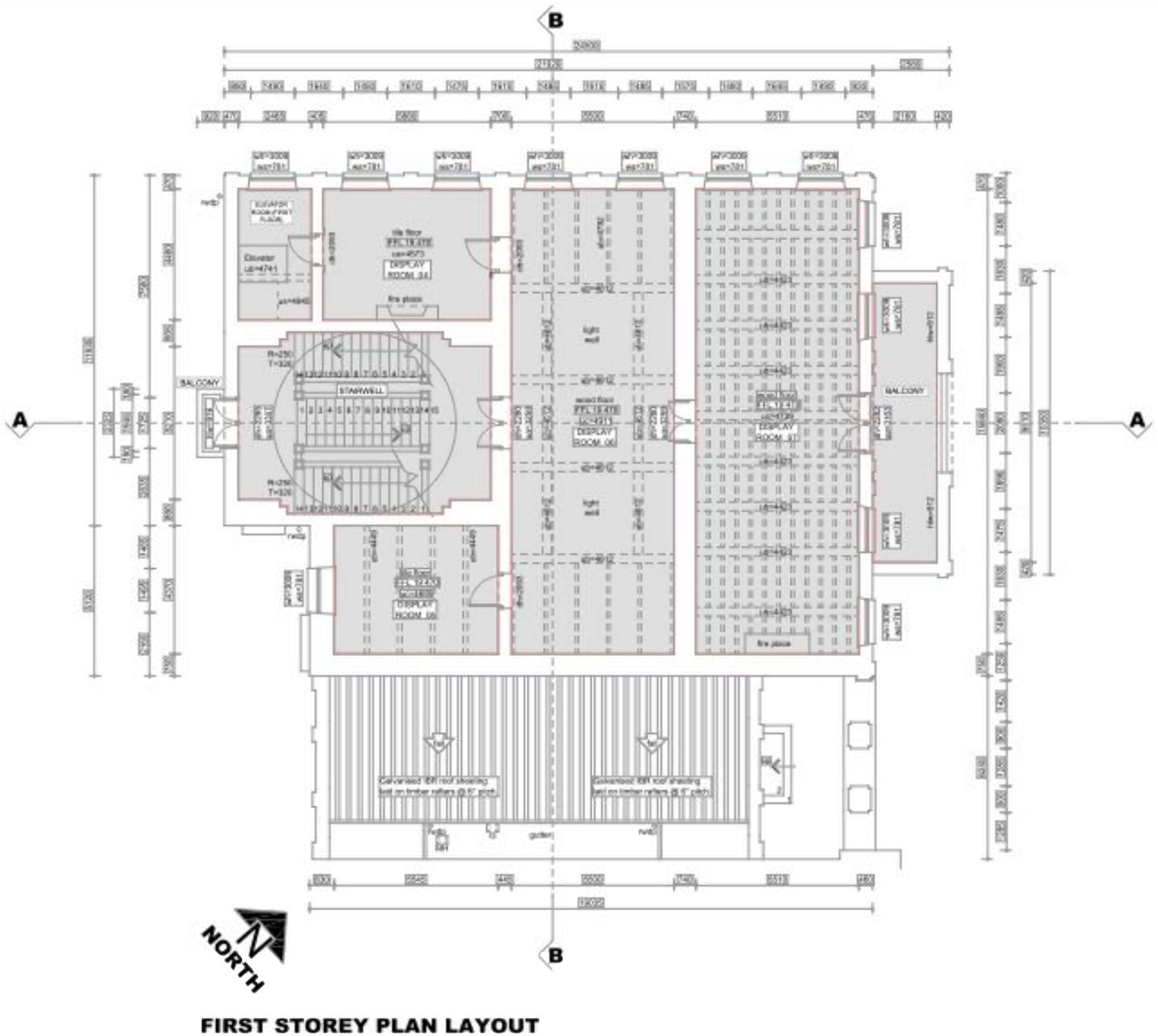
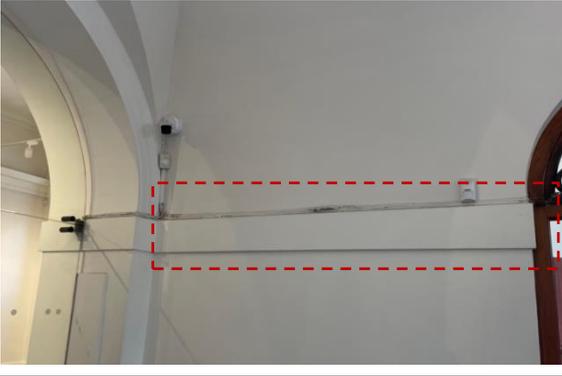


Figure 4: First Storey Plan at the Iziko Old Town House.

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INTERIOR AREA: ENTRANCE FOYER - (fig 3)

A. INTERIOR CONDITION ASSESSMENT:

Item	Condition Assessment	Photo
8	Redundant wiring evident. These wires to be removed. If damage to wall paint occurs during wire removal, the damaged area is to be repainted. Refer to electrical specifications.	
9	Redundant wiring evident, tangled with working wires. Install white PVC trunking over existing wiring. Refer to electrical specification.	
10	Redundant wiring evident, tangled with working wires. Install white PVC trunking over existing wiring. Refer to electrical specifications.	

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B. RENOVATION INSTRUCTION:

ENTRANCE FOYER:

Refer to items 8, 9 and 10 in the table above.

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C. RENOVATION INSTRUCTION AND NOTES:

NOTE: All electrical components, such as conduits, wiring and boxes that need to be removed for roof repairs must be done by a qualified electrician. All electrical components removed must be reinstated or replaced by a qualified electrician and certified as compliant.

NOTE: Any wiring or cables to be removed and the extent of removal must be confirmed/ approved by Head of Maintenance at Iziko Museums of South Africa- Frederick Paynter.

NOTE: All mechanical equipment that needs to be removed for repairs must be done by a qualified mechanical engineer. All mechanical equipment removed must be reinstated or replaced by a qualified mechanical engineer and certified as compliant.

SPECIFICATION:

1. **Wiring fixing/ trunking:** *Refer to item 8, 9 and 10 in the table above.*

As per electrical specifications.

2. **Repainting of repaired area (in the case that wires are removed):** *Refer to item 8, 9 and 10 in the table above.*

Coated Surfaces maintenance painting will frequently only permit or require complete removal of all old coatings after repainting. However, all surface contamination, such as oil, grease, loose paint, mill scale, dirt, foreign matter, rust, mould, mildew, mortar, efflorescence, and sealers, must be removed to ensure sound bonding to the tightly adhering old paint. The glossy surfaces of old paint films must be clean and dull before repainting. Thorough washing with an abrasive cleanser will clean and dull in one operation, or washing thoroughly and dull by sanding. Spot prime any bare areas with an appropriate primer.

New paint specification: Apply two coats of Plascon Double velvet pure interior paint in colour to match the existing one or equivalent, per the manufacturer's specifications.

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INTERIOR AREA: DISPLAY ROOM 01 - (fig 3)

A. INTERIOR CONDITION ASSESSMENT:

Item	Condition Assessment	Photo
11	<p>Patch up holes in wall (should still be able to unpatch and use in future if necessary - These wall holes might be able to be reused in future for fresh air supply to the rooms, depending on design requirements and heritage council approval).</p> <p>Drip tray from previous air con unit has been left behind with no purpose and negatively impacts the visual aesthetics and heritage.</p> <p>Priority of removal is low. If convenient and cost-effective, remove when patching wall holes.</p>	
12	<p>Drip tray from previous air con unit has been left behind with no purpose and negatively impacts the visual aesthetics and heritage.</p> <p>Priority of removal is low. If convenient and cost-effective, remove when patching wall holes (opposite wall).</p>	

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B. RENOVATION INSTRUCTION:

DISPLAY ROOM 1:

Refer to items 11 and 12 in the table above.

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C. RENOVATION INSTRUCTION NOTES:

NOTE: All electrical components, such as conduits, wiring and boxes that need to be removed for roof repairs must be done by a qualified electrician. All electrical components removed must be reinstated or replaced by a qualified electrician and certified as compliant.

NOTE: Any wiring or cables to be removed and the extent of removal must be confirmed/ approved by Head of Maintenance at Iziko Museums of South Africa- Frederick Paynter.

NOTE: All mechanical equipment that needs to be removed for repairs must be done by a qualified mechanical engineer. All mechanical equipment removed must be reinstated or replaced by a qualified mechanical engineer and certified as compliant.

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SPECIFICATION:

1. Holes in masonry: *Refer to item 11 in the table above.*

Clean away dust, grease and grime from surface. Fill holes with Polycell Polyfilla Masonry Patching Plaster, or equivalent, using a putty knife or trowel. Smooth off whilst still wet. Allow to dry for 24 hours. Patch prime using Professional Gypsum & Plaster Primer, or equivalent, and allow 16 hours drying at 23°C. NB: Texture on repaired areas must be finished off to match the existing profile.

Repainting patched hole/ area: Previously Coated Surfaces maintenance painting will frequently not permit or require complete removal of all old coatings prior to repainting. However, all surface contamination such as oil, grease, loose paint, mill scale, dirt, foreign matter, rust, mould, mildew, mortar, efflorescence, and sealers must be removed to assure sound bonding to the tightly adhering old paint. Glossy surfaces of old paint films must be clean and dull before repainting. Thorough washing with an abrasive cleanser will clean and dull in one operation, or, washing thoroughly and dull by sanding. Spot prime any bare areas with an appropriate primer.

New paint specification: Apply two coats of Plascon Double velvet pure interior paint in colour to match the existing one or equivalent, per the manufacturer's specifications.

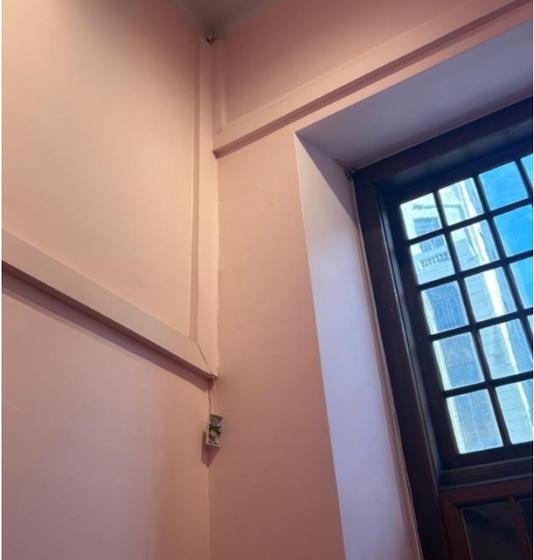
2. Drip trays: *Refer to items 11 and 12 in the table above.*

Care is to be taken if/ when the drip trays are removed. Any damage to walls or paint is to be avoided. In the event that minor damage occurs, refer to specification 1 above.

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INTERIOR AREA: DISPLAY ROOM 02 - (fig 3)

A. INTERIOR CONDITION ASSESSMENT:

Item	Condition Assessment	Photo
13	Remove redundant PIR sensor. Refer to electrical specification.	

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B. RENOVATION INSTRUCTION:

DISPLAY ROOM 2:

Refer to item 13 in the table above.

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C. RENOVATION INSTRUCTION NOTES:

NOTE: All electrical components, such as conduits, wiring and boxes that need to be removed for roof repairs must be done by a qualified electrician. All electrical components removed must be reinstated or replaced by a qualified electrician and certified as compliant.

NOTE: Any wiring or cables to be removed and the extent of removal must be confirmed/ approved by Head of Maintenance at Iziko Museums of South Africa- Frederick Paynter.

NOTE: All mechanical equipment that needs to be removed for repairs must be done by a qualified mechanical engineer. All mechanical equipment removed must be reinstated or replaced by a qualified mechanical engineer and certified as compliant.

SPECIFICATION:

1. **PIR Sensor:** *Refer to item 13 in the table above.*
 Repair as per electrical specifications.
 Carefully remove existing redundant PIR sensor to minimise negative aesthetic impact. Wires of sensor are to be severed neatly and must remain. The wires are only to be removed at a later stage of upgrade/ repair when repainting of the walls is included in the scope.

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INTERIOR AREA: ELEVATOR ROOM GROUND FLOOR - (fig 3)

A. INTERIOR CONDITION ASSESSMENT:

Item	Condition Assessment	Photo
14	Patch hole at plug at back door (builder's work).	
15	Install trunking/ safely bind wires out the way (to the wall). Refer to electrical specifications.	

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B. RENOVATION INSTRUCTION:

GROUND FLOOR ELEVATOR ROOM:

Refer to items 15 and 16 in the table above.

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DESCRIPTION OF THE WORKS AND TECHNICAL SPECIFICATIONS FOR REPAIRS & MAINTENANCE TO ROOF, AND VARIOUS INTERNAL UPGRADES

C. RENOVATION INSTRUCTION NOTES:

NOTE: All electrical components, such as conduits, wiring and boxes that need to be removed for roof repairs must be done by a qualified electrician. All electrical components removed must be reinstated or replaced by a qualified electrician and certified as compliant.

NOTE: Any wiring or cables to be removed and the extent of removal must be confirmed/ approved by Head of Maintenance at Iziko Museums of South Africa- Frederick Paynter.

NOTE: All mechanical equipment that needs to be removed for repairs must be done by a qualified mechanical engineer. All mechanical equipment removed must be reinstated or replaced by a qualified mechanical engineer and certified as compliant.

SPECIFICATION:

1. Holes in masonry: *Refer to item 14 in the table above.*

Clean away dust, grease and grime from surface. Fill holes with Polycell Polyfilla Masonry Patching Plaster, or equivalent, using a putty knife or trowel. Smooth off whilst still wet. Allow to dry for 24 hours. Patch prime using Professional Gypsum & Plaster Primer, or equivalent, and allow 16 hours drying at 23°C. NB: Texture on repaired areas must be finished off to match the existing profile.

Repainting patched hole/ area: Previously Coated Surfaces maintenance painting will frequently not permit or require complete removal of all old coatings prior to repainting. However, all surface contamination such as oil, grease, loose paint, mill scale, dirt, foreign matter, rust, mould, mildew, mortar, efflorescence, and sealers must be removed to assure sound bonding to the tightly adhering old paint. Glossy surfaces of old paint films must be clean and dull before repainting. Thorough washing with an abrasive cleanser will clean and dull in one operation, or, washing thoroughly and dull by sanding. Spot prime any bare areas with an appropriate primer.

New paint specification: Apply two coats of Plascon Double velvet pure interior paint in colour to match the existing one or equivalent, per the manufacturer's specifications.

2. Wiring fixing/ trunking: *Refer to item 15 in the table above.*

Repair as per electrical specifications.

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INTERIOR AREA: DISPLAY ROOM 03 - (fig 3)

A. INTERIOR CONDITION ASSESSMENT:

Item	Condition Assessment	Photo
16	Patch up holes in wall (should still be able to unpatch and use in future if necessary - These wall holes might be able to be reused in future for fresh air supply to the rooms, depending on design requirements and heritage council approval).	
17	Redundant PIR sensor. Remove or paint over to camouflage with wall. Refer to electrical specifications.	

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B. RENOVATION INSTRUCTION:

DISPLAY ROOM 3:

Refer to items 16 and 17 in the table above.

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C. RENOVATION INSTRUCTION NOTES:

NOTE: All electrical components, such as conduits, wiring and boxes that need to be removed for roof repairs must be done by a qualified electrician. All electrical components removed must be reinstated or replaced by a qualified electrician and certified as compliant.

NOTE: Any wiring or cables to be removed and the extent of removal must be confirmed/ approved by Head of Maintenance at Iziko Museums of South Africa- Frederick Paynter.

DESCRIPTION OF THE WORKS AND TECHNICAL SPECIFICATIONS FOR REPAIRS & MAINTENANCE TO ROOF, AND VARIOUS INTERNAL UPGRADES

NOTE: All mechanical equipment that needs to be removed for repairs must be done by a qualified mechanical engineer. All mechanical equipment removed must be reinstated or replaced by a qualified mechanical engineer and certified as compliant.

SPECIFICATION:

1. Holes in masonry: *Refer to item 16 in the table above.*

Clean away dust, grease and grime from surface. Fill holes with Polycell Polyfilla Masonry Patching Plaster, or equivalent, using a putty knife or trowel. Smooth off whilst still wet. Allow to dry for 24 hours. Patch prime using Professional Gypsum & Plaster Primer, or equivalent, and allow 16 hours drying at 23°C. NB: Texture on repaired areas must be finished off to match the existing profile.

Repainting patched hole/ area: Previously Coated Surfaces maintenance painting will frequently not permit or require complete removal of all old coatings prior to repainting. However, all surface contamination such as oil, grease, loose paint, mill scale, dirt, foreign matter, rust, mould, mildew, mortar, efflorescence, and sealers must be removed to assure sound bonding to the tightly adhering old paint. Glossy surfaces of old paint films must be clean and dull before repainting. Thorough washing with an abrasive cleanser will clean and dull in one operation, or, washing thoroughly and dull by sanding. Spot prime any bare areas with an appropriate primer.

New paint specification: Apply two coats of Plascon Double velvet pure interior paint in colour to match the existing one or equivalent, per the manufacturer's specifications.

2. PIR Sensor: *Refer to item 17 in the table above.*

Repair as per electrical specifications.

Carefully remove existing redundant PIR sensor to minimise negative aesthetic impact. Wires of sensor are to be severed neatly and must remain. The wires are only to be removed at a later stage of upgrade/ repair when repainting of the walls is included in the scope.

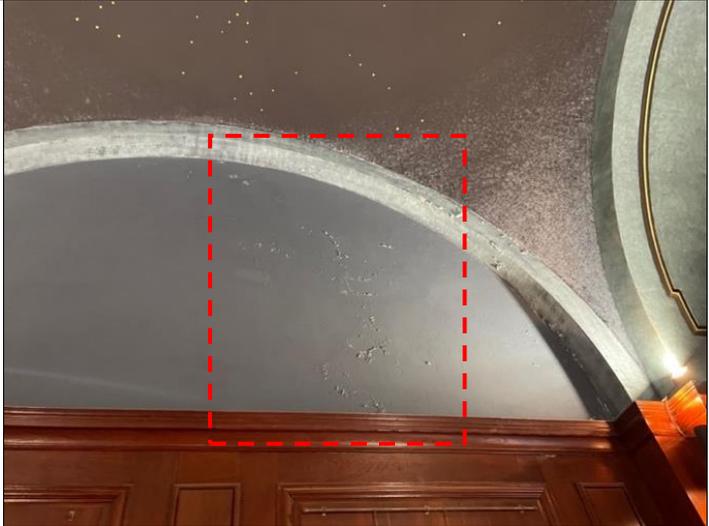
DESCRIPTION OF THE WORKS AND TECHNICAL SPECIFICATIONS FOR REPAIRS & MAINTENANCE TO ROOF, AND VARIOUS INTERNAL UPGRADES

INTERIOR AREA: STAIRWELL - (fig 3 & 4)

A. INTERIOR CONDITION ASSESSMENT:

Item	Condition Assessment	Photo
<p>18</p>	<p>Location for proposed exhibition lights. Improved/ new pendant light is an alternative option.</p> <p>Lighting to electrical engineer's specification.</p>	
<p>19</p>	<p>Location of old split unit installed in the grand staircase. Finishes and holes in masonry need repairs and paint.</p> <p>Some of these locations might be able to be reused for fresh air supply to the rooms, depending on design requirements and heritage council approval.</p>	

DESCRIPTION OF THE WORKS AND TECHNICAL SPECIFICATIONS FOR REPAIRS & MAINTENANCE TO ROOF, AND VARIOUS INTERNAL UPGRADES

<p>20</p>	<p>Water damage to walls due to water drainage problem on roof (see section 1 of document, area 3).</p> <p>Repair water damage to wall.</p>	
<p>21</p>	<p>Location for proposed exhibition lights.</p> <p>Lighting to electrical engineer's specification.</p>	
<p>22</p>	<p>Location for proposed flood lights (moved over into corner at the piers supporting the dome).</p> <p>Lighting to electrical engineer's specification.</p>	

DESCRIPTION OF THE WORKS AND TECHNICAL SPECIFICATIONS FOR REPAIRS & MAINTENANCE TO ROOF, AND VARIOUS INTERNAL UPGRADES

<p>23</p> <p>Remove fire extinguisher mounting slab. Fire extinguishers to be reinstated in alternative approved position.</p> <p>Remove existing ineffective ambient rectangular light. Proposed and improved rectangular light to be installed in place of previous extinguisher.</p> <p>Location for proposed exhibition lights (dashed red outline).</p> <p>Lighting to electrical engineer's specification.</p>	
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B. RENOVATION INSTRUCTION:

STAIRWELL:

Refer to items 18 – 23 in the table above.

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C. RENOVATION INSTRUCTION NOTES:

NOTE: All electrical components, such as conduits, wiring and boxes that need to be removed for roof repairs must be done by a qualified electrician. All electrical components removed must be reinstated or replaced by a qualified electrician and certified as compliant.

NOTE: Any wiring or cables to be removed and the extent of removal must be confirmed/ approved by Head of Maintenance at Iziko Museums of South Africa- Frederick Paynter.

NOTE: All mechanical equipment that needs to be removed for repairs must be done by a qualified mechanical engineer. All mechanical equipment removed must be reinstated or replaced by a qualified mechanical engineer and certified as compliant.

SPECIFICATION:

1. **Exhibition lighting:** *Refer to items 18, 21 and 23 in the table above.*
Install as per electrical engineer's specification.

2. **Flood lighting:** *Refer to item 22 in the table above.*
Repair/ install as per electrical engineer's specification.

3. **Ambient lighting:** *Refer to item 23 in the table above.*
Install as per electrical engineer's specification.

DESCRIPTION OF THE WORKS AND TECHNICAL SPECIFICATIONS FOR REPAIRS & MAINTENANCE TO ROOF, AND VARIOUS INTERNAL UPGRADES

4. Holes in masonry: *Refer to item 19 in the table above.*

Clean away dust, grease and grime from surface. Fill holes with Polycell Polyfilla Masonry Patching Plaster, or equivalent, using a putty knife or trowel. Smooth off whilst still wet. Allow to dry for 24 hours. Patch prime using Professional Gypsum & Plaster Primer, or equivalent, and allow 16 hours drying at 23°C. NB: Texture on repaired areas must be finished off to match the existing profile.

-Repainting patched hole/ area: Previously Coated Surfaces maintenance painting will frequently not permit or require complete removal of all old coatings prior to repainting. However, all surface contamination such as oil, grease, loose paint, mill scale, dirt, foreign matter, rust, mould, mildew, mortar, efflorescence, and sealers must be removed to assure sound bonding to the tightly adhering old paint. Glossy surfaces of old paint films must be clean and dull before repainting. Thorough washing with an abrasive cleanser will clean and dull in one operation, or, washing thoroughly and dull by sanding. Spot prime any bare areas with an appropriate primer.

-New paint specification: Apply two coats of Plascon Double velvet pure interior paint in colour to match existing, or equivalent, as per manufacturer's specifications.

5. Wall water damage repair: *Refer to item 20 in the table above.*

-Mold removal: Before attempting to remove mildew, testing any cleaner on a small, inconspicuous area before use is always recommended. Bleach and bleaching type cleaners may damage or discolour existing paint films. Bleach alternative cleaning solutions may be advised. Remove mildew before painting with 1 part liquid household bleach and three parts of warm water. Apply the solution and scrub the mildewed area. Allow the solution to remain on the surface for 10 minutes. Rinse thoroughly with clean water and allow the surface to dry 48 hours before painting. Wear protective glasses or goggles, waterproof gloves, and protective clothing.

Quickly wash off any of the mixture that comes in contact with your skin. Do not add detergents or ammonia to the bleach/water solution.

-Repainting repaired area: Previously Coated Surfaces maintenance painting will frequently not permit or require complete removal of all old coatings prior to repainting. However, all surface contamination such as oil, grease, loose paint, mill scale, dirt, foreign matter, rust, mould, mildew, mortar, efflorescence, and sealers must be removed to assure sound bonding to the tightly adhering old paint. Glossy surfaces of old paint films must be clean and dull before repainting. Thorough washing with an abrasive cleanser will clean and dull in one operation, or, washing thoroughly and dull by sanding. Spot prime any bare areas with an appropriate primer.

-New paint specification: Apply two coats of Plascon Double velvet pure interior paint in colour to match the existing one or equivalent, per the manufacturer's specifications.

DESCRIPTION OF THE WORKS AND TECHNICAL SPECIFICATIONS FOR REPAIRS & MAINTENANCE TO ROOF, AND VARIOUS INTERNAL UPGRADES

INTERIOR AREA: DISPLAY ROOM 04 - (fig 4)

A. INTERIOR CONDITION ASSESSMENT:

Item	Condition Assessment	Photo
24	Brightness and glare are more extreme in this display room. Blinds/ light diffusers are potentially necessary.	

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B. RENOVATION INSTRUCTION:

FIRST FLOOR ELEVATOR ROOM:

Refer to item 24 in the table above.

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C. RENOVATION INSTRUCTION NOTES:

NOTE: All electrical components, such as conduits, wiring and boxes that need to be removed for roof repairs must be done by a qualified electrician. All electrical components removed must be reinstated or replaced by a qualified electrician and certified as compliant.

NOTE: Any wiring or cables to be removed and the extent of removal must be confirmed/ approved by Head of Maintenance at Iziko Museums of South Africa- Frederick Paynter.

NOTE: All mechanical equipment that needs to be removed for roof repairs must be done by a qualified mechanical engineer. All mechanical equipment removed must be reinstated or replaced by a qualified mechanical engineer and certified as compliant.

SPECIFICATION:

- Window blind:** *Refer to item 24 in the table above.*
White (or white linen) light-filtering roller blind with operating chain, operating mechanism and bottom rails. Fit to window dimensions. Prepare surface for mounting and install as per manufacturer specification/ detail.

DESCRIPTION OF THE WORKS AND TECHNICAL SPECIFICATIONS FOR REPAIRS & MAINTENANCE TO ROOF, AND VARIOUS INTERNAL UPGRADES

INTERIOR AREA: ELEVATOR ROOM FIRST FLOOR - (fig 4)

A. INTERIOR CONDITION ASSESSMENT:

Item	Condition Assessment	Photo
25	Smoke detector connection wire is hanging and could prove problematic/ dangerous. Fix smoke detector wire to ceiling. Refer to electrical specifications.	

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B. RENOVATION INSTRUCTION:

FIRST FLOOR ELEVATOR ROOM:

Refer to item 25 in the table above.

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C. RENOVATION INSTRUCTION NOTES:

NOTE: All electrical components, such as conduits, wiring and boxes that need to be removed for roof repairs must be done by a qualified electrician. All electrical components removed must be reinstated or replaced by a qualified electrician and certified as compliant.

NOTE: Any wiring or cables to be removed and the extent of removal must be confirmed/ approved by Head of Maintenance at Iziko Museums of South Africa- Frederick Paynter.

NOTE: All mechanical equipment that needs to be removed for roof repairs must be done by a qualified mechanical engineer. All mechanical equipment removed must be reinstated or replaced by a qualified mechanical engineer and certified as compliant.

SPECIFICATION:

1. **Wiring fixing/ trunking:** *Refer to item 25 in the table above.*
Repair as per electrical specifications.

DESCRIPTION OF THE WORKS AND TECHNICAL SPECIFICATIONS FOR REPAIRS & MAINTENANCE TO ROOF, AND VARIOUS INTERNAL UPGRADES

INTERIOR AREA: DISPLAY ROOM 05 - (fig 4)

A. INTERIOR CONDITION ASSESSMENT:

Item	Condition Assessment	Photo
26	Brightness and glare are more extreme in this display room. Blinds/ light diffusers are potentially necessary.	

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B. RENOVATION INSTRUCTION:

DISPLAY ROOM 5:

Refer to item 26 in the table above.

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C. RENOVATION INSTRUCTION NOTES:

NOTE: All electrical components, such as conduits, wiring and boxes that need to be removed for roof repairs must be done by a qualified electrician. All electrical components removed must be reinstated or replaced by a qualified electrician and certified as compliant.

NOTE: Any wiring or cables to be removed and the extent of removal must be confirmed/ approved by Head of Maintenance at Iziko Museums of South Africa- Frederick Paynter.

NOTE: All mechanical equipment that needs to be removed for repairs must be done by a qualified mechanical engineer. All mechanical equipment removed must be reinstated or replaced by a qualified mechanical engineer and certified as compliant.

SPECIFICATION:

2. Window blind: *Refer to item 26 in the table above.*

White (or white linen) light-filtering roller blind with operating chain, operating mechanism and bottom rails. Fit to window dimensions. Prepare surface for mounting and install as per manufacturer specification/ detail.

DESCRIPTION OF THE WORKS AND TECHNICAL SPECIFICATIONS FOR REPAIRS & MAINTENANCE TO ROOF, AND VARIOUS INTERNAL UPGRADES

INTERIOR AREA: DISPLAY ROOM 06 - (fig 4)

A. INTERIOR CONDITION ASSESSMENT:

Item	Condition Assessment	Photo
27	<p>Smoke detector connection wire is hanging and could prove problematic/ dangerous. Fix smoke detector wire to ceiling/ beam. Refer to electrical specifications.</p>	
28	<p>Black switched socket outlet is in stark contrast to white wall. Replace existing black switched socket outlet face with white (on both sides of room). Refer to electrical specifications.</p>	

DESCRIPTION OF THE WORKS AND TECHNICAL SPECIFICATIONS FOR REPAIRS & MAINTENANCE TO ROOF, AND VARIOUS INTERNAL UPGRADES

29	Wax-like substance is dripping from nearby the air conditioner unit above. The source of the dripping needs to be investigated and removed. The existing wax-like droplets need to be removed (the floor is to be cleaned).	
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B. RENOVATION INSTRUCTION:

DISPLAY ROOM 6:

Refer to items 27 – 29 in the table above.

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C. RENOVATION INSTRUCTION NOTES:

NOTE: All electrical components, such as conduits, wiring and boxes that need to be removed for roof repairs must be done by a qualified electrician. All electrical components removed must be reinstated or replaced by a qualified electrician and certified as compliant.

NOTE: Any wiring or cables to be removed and the extent of removal must be confirmed/ approved by Head of Maintenance at Iziko Museums of South Africa- Frederick Paynter.

NOTE: All mechanical equipment that needs to be removed for repairs must be done by a qualified mechanical engineer. All mechanical equipment removed must be reinstated or replaced by a qualified mechanical engineer and certified as compliant.

SPECIFICATION:

- 1. Wiring fixing/ trunking:** *Refer to item 28 in the table above.*
Repair as per electrical specifications.
- 2. Switched socket:** *Refer to item 29 in the table above.*
Replace/ install as per electrical specifications.
- 3. Wax removal/ cleaning:** *Refer to item 30 in the table above.*
Ensure the wax-like substance is hard and cool. Use a thin, stiff plastic object (resembling a plastic scraper) to remove the hardened wax from the floor. Gently scrape the wax to dislodge it off the floor surface. Use a lightly damp cloth and a small amount of all-purpose cleaner to remove any excess waxy substance. Ensure the all-purpose cleaner is not seriously abrasive to wood. After that, use a clean and slightly damp cloth to remove leftover all-purpose cleaner residue. Finally, use a wooden floor wax, if necessary, to ensure the floor remains undamaged (to match existing finish of wooden floor).

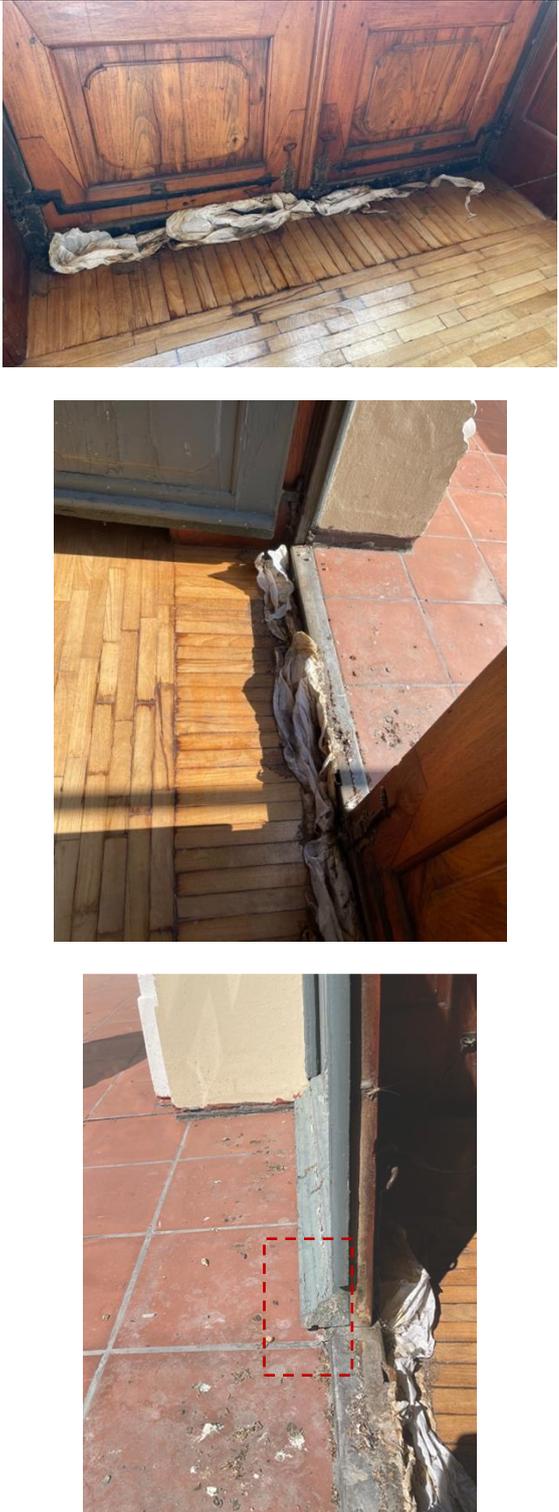
DESCRIPTION OF THE WORKS AND TECHNICAL SPECIFICATIONS FOR REPAIRS & MAINTENANCE TO ROOF, AND VARIOUS INTERNAL UPGRADES

INTERIOR AREA: DISPLAY ROOM 07 - (fig 4)

A. INTERIOR CONDITION ASSESSMENT:

Item	Condition Assessment	Photo
<p>30</p>	<p>The heritage and future artwork exhibition is negatively impacted by the switched socket outlet (bottom left). Therefore:</p> <p>Remove existing switched socket outlet (bottom left).</p> <p>Reconnect/ rewire electricity feed for track lights from the socket outlet to the electricity drop box (top right). Refer to electrical specifications.</p>	
<p>31</p>	<p>Existing windowpane is cracked and damaged.</p> <p>Replace windowpane with equivalent pane. Mould and paint the sealant and putty to match existing.</p>	

DESCRIPTION OF THE WORKS AND TECHNICAL SPECIFICATIONS FOR REPAIRS & MAINTENANCE TO ROOF, AND VARIOUS INTERNAL UPGRADES

<p>32</p>	<p>Existing door to balcony is ineffectively/ insufficiently sealed from water ingress.</p> <p>Drip groove on exterior of balcony door to be fitted with rubber strip to block water ingress under the door.</p> <p>Interior floor finish to be cleaned, checked for damage and treated.</p>	
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B. RENOVATION INSTRUCTION:

DISPLAY ROOM 7:

Refer to items 30 – 32 in the table above.

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DESCRIPTION OF THE WORKS AND TECHNICAL SPECIFICATIONS FOR REPAIRS & MAINTENANCE TO ROOF, AND VARIOUS INTERNAL UPGRADES

C. RENOVATION INSTRUCTION NOTES:

NOTE: All electrical components, such as conduits, wiring and boxes that need to be removed for roof repairs must be done by a qualified electrician. All electrical components removed must be reinstated or replaced by a qualified electrician and certified as compliant.

NOTE: Any wiring or cables to be removed and the extent of removal must be confirmed/ approved by Head of Maintenance at Iziko Museums of South Africa- Frederick Paynter.

NOTE: All mechanical equipment that needs to be removed for repairs must be done by a qualified mechanical engineer. All mechanical equipment removed must be reinstated or replaced by a qualified mechanical engineer and certified as compliant.

SPECIFICATION:

- 1. Switched socket:** *Refer to item 30 in the table above.*
Replace/ install as per electrical specifications.
- 2. Windowpane:** *Refer to item 31 in the table above.*
Carefully remove broken window pane and the putty surrounding the specific pane and replace neatly with equivalent pane and putty.
- 3. Weatherproofing:** *Refer to item 32 in the table above.*
EXTERIOR:
Prepare the door surface (clean of debris; sand the area for work/ installation)
Prepare the floor surface (clean of debris)
Fix rubber strip to drip groove of door
INTERIOR:
Prepare the floor surface (clean of debris and excess dirt/ water; dry)
Add floor wax

DESCRIPTION OF THE WORKS AND TECHNICAL SPECIFICATIONS FOR REPAIRS & MAINTENANCE TO ROOF, AND VARIOUS INTERNAL UPGRADES

EXTERIOR AREA: BALCONIES - (fig 4)

A. ELECTRICAL CONDITION ASSESSMENT:

Item	Condition Assessment	Photo
33	First floor balcony to be cleared of debris and litter. Balcony is to be cleaned at regular intervals throughout the year.	
34	Balcony at the staircase landing is to be cleared of debris. Balcony is to be cleaned at regular intervals throughout the year.	

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B. RENOVATION INSTRUCTION:

BALCONIES:

Refer to items 34 and 35 in the table above.

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C. RENOVATION INSTRUCTION NOTES:

NOTE: All electrical components, such as conduits, wiring and boxes that need to be removed for roof repairs must be done by a qualified electrician. All electrical components removed must be reinstated or replaced by a qualified electrician and certified as compliant.

NOTE: Any wiring or cables to be removed and the extent of removal must be confirmed/ approved by Head of Maintenance at Iziko Museums of South Africa- Frederick Paynter.

NOTE: All mechanical equipment that needs to be removed for repairs must be done by a qualified mechanical engineer. All mechanical equipment removed must be reinstated or replaced by a qualified mechanical engineer and certified as compliant.

DESCRIPTION OF THE WORKS AND TECHNICAL SPECIFICATIONS FOR REPAIRS & MAINTENANCE TO ROOF, AND VARIOUS INTERNAL UPGRADES

SPECIFICATION:

- 1. General cleaning:** *Refer to items 33 and 34 in the table above.*

EXTERIOR:

Clear the floor area by removing any plant matter, debris and/ or litter

Scrape off any lingering grime or dirt and wash away from the floor.

Scrub and mop floor surface with a light washing-agent that is not toxic or abrasive to plants or existing building surfaces.

Rinse lightly with fresh water and clean mop

Air dry

DESCRIPTION OF THE WORKS AND TECHNICAL SPECIFICATIONS FOR REPAIRS & MAINTENANCE TO ROOF, AND VARIOUS INTERNAL UPGRADES

ANNEXURE B