THE EXISTING OLD ST. ANNE'S HOSPITAL

VISUAL AND CONDITIONAL ASSESSMENT REPORT FOR SUBMISSION TO THE 'NATIONAL HERITAGE COUNCIL – SOUTH AFRICA'

STRUCTURAL INTEGRITY OF THE EXISTING STRUCTURAL AND BUILDING ELEMENTS

MAY 2021

FINAL

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Project	**THE EXISTING OLD ST. ANNE'S HOSPITAL.** **VISUAL AND CONDITIONAL ASSESSMENT REPORT FOR SUBMISSION TO THE 'NATIONAL HERITAGE COUNCIL – SOUTH AFRICA'.** **STRUCTURAL INTEGRITY OF THE EXISTING STRUCTURAL AND BUILDING ELEMENTS.**
Report Title	**VISUAL AND CONDITIONAL ASSESSMENT REPORT FOR SUBMISSION TO THE 'NATIONAL HERITAGE COUNCIL – SOUTH AFRICA'.** **STRUCTURAL INTEGRITY OF THE EXISTING STRUCTURAL AND BUILDING ELEMENTS.**
Reference	**200-405 : VISUAL AND CONDITIONAL ASSESSMENT REPORT FOR SUBMISSION TO THE 'NATIONAL HERITAGE COUNCIL – SOUTH AFRICA'.**
Date	**2021.05.31**

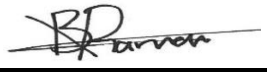
RECORD OF REVISIONS AND AMENDMENTS

Date	Section	Title	Revision No.

QUALITY CONTROL

Prepared By:	Designation	Signature	Date
C. L. Stevens	Senior Technician		2021.05.31

Checked By:	Designation	Signature	Date
B. Raman	Senior Engineer		2021.05.31

Issued By:	Designation	Signature	Date
B. Raman	Senior Engineer		2021.05.31

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1. PREAMBLE

MAP AFRICA Consulting Engineers have been appointed by Sakhisizwe Architects as the Structural Engineers to carry out a Visual Structural Assessment of the existing old St. Anne's Hospital. Sakhisizwe Architects has been appointed as the Principal Agent by National Heritage Council – South Africa for the relocation, refurbishment and expansion of the existing KZN Museum, from 237 Jabu Ndlovu Street to the old St. Anne's Sanatorium located at 96 Jabu Ndlovu Street, Pietermaritzburg, Kwa-Zulu Natal. On the 18th of May 2021, MAP AFRICA Consulting Engineers conducted visual structural conditional assessments in order to determine the 'Status-Quo' of the existing AMAFA buildings (which are to remain as part of the expansion Phase) situated within the precinct at 96 Jabu Ndlovu Street and to provide structural advice which will accommodate the architectural interventions of the expansion and refurbishment Phases. Our investigations, observations and findings, recommendations and conclusion are contained in this report.

2. SITE LOCALITY AND BACKGROUND

The St Anne's Sanatorium began operation in 1898, with the primary purpose of providing care for the mentally ill, however, this institution has been closed down and abandoned. The buildings that were assessed are located at 96 Jabu Ndlovu Street, Pietermaritzburg, Msunduzi Local Municipality, Kwa-Zulu Natal. Site co-ordinates 29º36'31.31''S 30º22'33.63''E (*Refer to Figure 1 : Site Locality Plan below).*

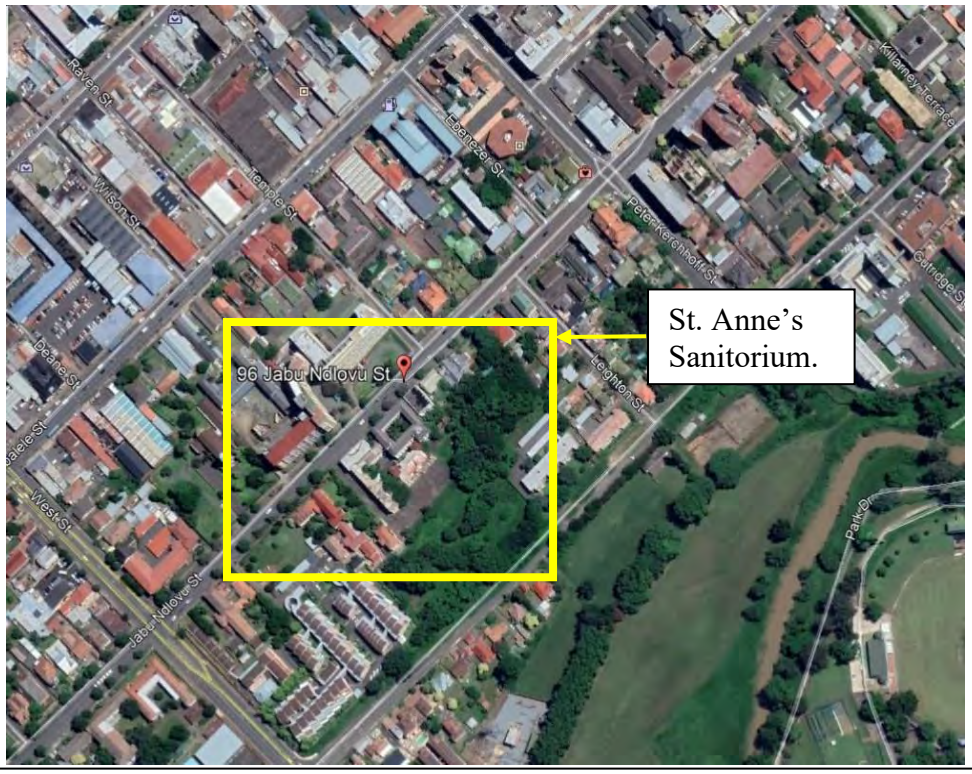


Figure 1 : Site Locality of the existing St. Anne's Sanitorium located at 96 Jabu Ndlovu Street, Pietermaritzburg.

3. OBSERVATIONS AND FINDINGS

3.1 AMAFA Building No.1 : BLOCK A (Refer to Annexure A for block position)

Building description: The existing triple storey building, including a loft area, comprises combination of concrete surface bed slabs, suspended concrete and timber floors, concrete columns and load bearing masonry walls. The roof structure comprises timber roof trusses covered with metal roof sheeting. A mechanical lift and timber staircases provide access to the different levels. It must be noted that the existing mechanical lift appears to be 'out of order'.

3.1.1 Moderate plaster cracks on the internal walls were noted – this appears to be as a result of slight movement of the structural elements as well as the lack of maintenance to the building

3.1.2 Severe damage to the internal timber suspended floors were noted – this is as a result of constant moisture ingress to the building which has now compromised the structural stability of the timber support structure.

3.1.3 Severe delamination of plaster on the internal walls were noted – this is as a result of moisture ingress to the building.

3.1.4 Severe damage to the timber support structure for the suspended timber floor at first floor level was noted - this is as a result of constant moisture ingress to the building which has now compromised the structural stability of the timber support structure.

3.1.5 Collapse of the timber tread and first floor landing of the internal timber staircase was noted - this is as a result of constant moisture ingress to the building which has now compromised the structural stability of the timber support structure.

3.1.6 Severe vegetation growth internally was noted – this is as a result of the lack of maintenance to the building.

3.1.7 Concrete spalling to the existing soffit of the first floor concrete balcony slab was noted – this is as a result of constant moisture ingress into the concrete slab as well as the lack of maintenance to the building.

3.1.8 A severely damaged concrete column at first floor was noted – this as a result of the lack of maintenance to the building and deterioration of building elements.

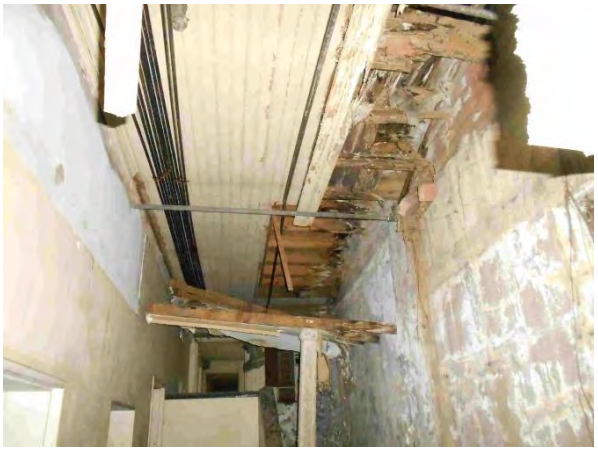
3.1.9 Damaged and loose brickwork below concrete column at first floor level was noted – this is as a result of the lack of maintenance to the building and deterioration of building elements.

3.1.10 Moisture damage to existing timber roof trusses were noted – this is as a result of the damaged metal roof sheeting allowing constant moisture ingress to the roof trusses.

Photograph 1 : Showing severe delamination of plaster to internal walls.

Photograph 2 : Showing severe damage to existing suspended timber floors.

Photograph 3 : Showing damaged and loose brickwork below existing concrete column at first floor level.



Photograph 4 : Showing severe damage to existing timber support structure at first floor level.

3.2 AMAFA Building No. 2 : BLOCK C (Refer to Annexure A for block position)

Building description: The existing four storey building comprises a combination of concrete surface bed slabs, suspended concrete and timber floors, concrete columns and load bearing masonry walls. The roof structure comprises timber roof trusses covered with clay roof tiles. A mechanical lift and timber staircases provide access to the different levels. It must be noted that the existing mechanical lift appears to be 'out of order'.

3.2.1 Severe moisture damage to the internal walls were noted - this is as a result of moisture ingress to the building.

3.2.2 Severe structural cracks to the internal walls were noted - this appears to be as a result of slight movement of the structural elements as well as the lack of maintenance to the building.

3.2.3 Severe moisture damage to the internal timber suspended floors were noted – this is as a result of constant moisture ingress to the building which has now compromised the structural stability of the timber support structure.

3.2.4 A damaged existing internal concrete staircase was noted – this is as a result of the lack of maintenance to the building.

3.2.5 Severe collapse of the internal suspended timber floors at various locations were noted - this is as a result of constant moisture ingress to the building which has now compromised the structural stability of the timber support structure.

3.2.6 Severe moisture damage to the existing timber box gutters were noted – this is as result of the moisture ingress through the existing deteriorated waterproofing membrane.

3.2.7 Severe moisture damage at the concrete slab and masonry wall interface above the balcony walkway at various locations were noted - this is as a result of constant moisture ingress to the building.

3.2.8 Severe moisture damage at the concrete slab and downstand beam interface at various locations were noted - this is as a result of constant moisture ingress to the building.

3.2.9 Severe 'leaching' of the suspended concrete slab within the existing mechanical lift shaft room was noted - this is as result of the constant moisture ingress through the existing deteriorated waterproofing membrane.

3.2.10 Moisture damage to the existing timber roof trusses in various locations were noted - this is as a result of the damaged clay roof tiles allowing constant moisture ingress to the roof trusses.

3.2.11 Damaged and deteriorated waterproofing within the timber box gutter at various locations were noted - this is as a result of the lack of maintenance and deterioration of building elements.

3.2.12 Severe vegetation growth at various locations of the building was noted – this is as a result of the lack of maintenance to the building.

Photograph 5 : Showing severe moisture damage and cracks to the existing internal walls.

Photograph 6 : Showing severe moisture damage to the existing internal timber floors.

Photograph 7 : Showing severe moisture damage at the existing concrete slab and masonry wall interface.

Photograph 8 : Showing severe 'leaching' of the existing concrete suspended slab in the mechanical lift shaft room.

3.3 AMAFA Building No. 3: BLOCK F (Refer to Annexure A for block position)

Building description: The existing triple storey building, including a loft area continued from Block A, comprises combination of concrete surface bed slabs, suspended concrete and timber floors, concrete columns and load bearing masonry walls. The roof structure comprises timber roof trusses covered with metal roof sheeting. Concrete and timber staircases provide access to the different levels.

3.3.1 Moderate plaster cracks on the internal walls were noted - this is as a result of slight movement of the structural elements as well as the lack of maintenance to the building

3.3.2 Severe damage to the internal timber suspended floors were noted – this is as a result of constant moisture ingress to the building which has now compromised the structural stability of the timber support structure.

3.3.3 Severe delamination of plaster on the internal walls were noted – this is as a result of moisture ingress to the building.

3.3.4 Severe damage to the timber support structure of the suspended timber floor at first floor level was noted - this is as a result of constant moisture ingress to the building which has now compromised the structural stability of the timber support structure.

3.3.5 Collapse of the timber treads and first floor landing on the internal timber staircase was noted. - this is as a result of constant moisture ingress to the building which has now compromised the structural stability of the timber support structure.

3.3.6 Severe vegetation growth internally and externally was noted – this is as a result of the lack of maintenance to the building.

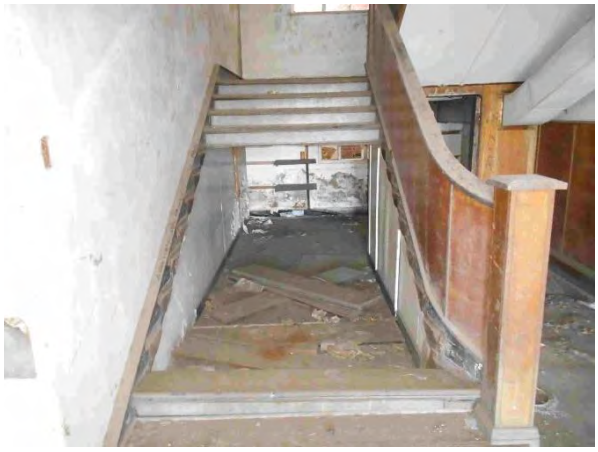
3.3.7 Concrete spalling to the existing soffit of the first floor balcony slab was noted - this is as a result of constant moisture ingress into the concrete slab as well as the lack of maintenance to the building.

3.3.8 A severely damaged concrete column at first floor was noted - this is as a result of the lack of maintenance and deterioration of building elements.

3.3.9 Damaged and loose brickwork at first floor level was noted - this is as a result of the lack of maintenance and deterioration of building elements.

3.3.10 Moisture damaged to existing timber roof trusses were noted - this is as a result of the damaged roof sheets allowing constant moisture ingress to the roof area.

3.3.11 Severe damage to the existing timber balcony roof structure was noted - this is as a result of the damaged roof sheets allowing constant moisture ingress to the roof area.



Photograph 9 : Showing the collapsed treads of the internal timber staircase.

Photograph 10 : Showing severe damage to the existing timber balcony roof structure.

Photograph 11 : Showing the existing deteriorated and corroded metal roof

Photograph 12 : Showing severe vegetation growth internal of the building.

3.4 AMAFA Building No. 4 : BLOCK G (Refer to Annexure A for block position)

Building description: The existing single double storey building, which also includes a partial basement level, comprises concrete surface bed slabs and suspended concrete floor slabs supported on load bearing masonry walls. The roof structure comprises timber trusses covered with clay roof tiles. An internal concrete staircase provides access to the lower level of the building. Block G also has a building extension which appears to have been the 'Boiler Room'. The Boiler Room roof structure comprises timber roof trusses with metal roof sheeting.

3.4.1 Damaged and chipped nosing on the existing internal concrete staircase was noted - this is as a result of the lack of maintenance to the building.

3.4.2 Cracks on the concrete staircase was noted - this is as a result of slight movement of the structural elements as well as the lack of maintenance to the building.

3.4.3 Severe deterioration of the screed on the suspended concrete floors was noted - this is as a result of movement of the structural elements as well as the lack of maintenance to the building.

3.4.4 Damaged and displaced clay roof tiles were noted - this is as a result of movement of the building elements as well as the lack of maintenance to the building.

3.4.5 Moisture damage to timber roof elements were noted (i.e., timber valley gutter, roof trusses, etc) - this is as a result of the damaged clay roof tiles allowing constant moisture ingress to the roof area.

Photograph 13 : Showing damaged and displaced roof tiles as well as moisture damaged timber roof elements.

Photograph 14 : Showing severe damage to the existing screed on the suspended concrete slab.

BOILER ROOM

3.4.6 Severe separation of the existing construction joint on external walls was noted – appears to be at the interface of the building extension - this is as a result of settlement of the building.

3.4.7 Structural cracks on the internal face of the existing walls in various locations were noted - this is as a result of slight movement of the building elements as well as the lack of maintenance to the building

3.4.8 Delamination of the existing external plaster in various locations were noted – this as a result of moisture ingress beneath damaged plaster.

3.4.9 Corroded roof sheets were noted – this is as a result of the deterioration of building materials as well as the lack of maintenance.

3.4.10 Moisture damage to the existing timber roof structure was noted - this is as a result of the damaged metal roof sheeting allowing constant moisture ingress to the roof area.

Photograph 15 : Showing separation of walls at the construction joint.

Photograph 16 : Showing delamination of the existing external plaster.

3.5 AMAFA Building No.5 : BLOCK E - THE CHAPEL (Ref to Annexure A for block position)

Building description: The existing single storey building comprises concrete surface bed slabs, concrete columns and beams and load bearing masonry walls supporting a reinforced concrete roof slab. There is a projected ‘double pitched’ roof structure which is supported on the suspended concrete roof slab. This projected ‘double pitched’ roof structure comprises timber roof trusses covered with metal roof sheeting, which is supported on load bearing masonry walls.

3.5.1 Severe spalling to the existing suspended concrete slab in various areas were noted - this is as a result of constant moisture ingress into the concrete slab as well as the lack of maintenance to the building.

3.5.2 Severe structural cracks to internal walls in various locations were noted - this is as a result of movement of the structural elements as well as the lack of maintenance to the building.

3.5.3 Severe moisture damage to the internal walls in various locations were noted - this is as a result of constant moisture ingress to the building which has now compromised the structural stability of the timber support structure.

3.5.4 Severe vegetation growth internally and externally was noted - this is as a result of the lack of maintenance to the building.

3.5.5 Severe settlement of the existing surface bed within the chapel ablution was noted – this is as a result of movement of the building materials as well as lack of maintenance

3.5.6 Severe structural damage to the existing parapet walls at various locations were noted – this is as a result of the lack of maintenance of the vegetation growth.

Photograph 17 : Showing severe spalling to the existing suspended concrete slab.

Photograph 18 : Showing severe settlement of the existing surface bed slab in the ablutions.

Photograph 19 : Showing severe structural damage to the existing parapet wall.

Photograph 20 : Showing severe vegetation growth internal of the building.

3.6 EXTERNAL WORKS

3.6.1 Leaning / rotating of the existing masonry boundary wall South West facing was noted.

3.6.2 Settlement cracks on the existing access ramp located within the vicinity of Block G was noted.

3.6.3 Damaged and silted 'cut-off' drain at the main entrance driveway was noted.

3.6.4 Damaged / missing rain water goods were noted on all buildings.

3.6.5 Silted stormwater gulley's were noted around the buildings.

3.6.6 Severely damaged premix around existing manholes in various locations were noted.

3.6.7 Severe 'crocodile cracking' of the existing premix layer in various locations were noted.

3.6.8 Settlement of the existing premix in various locations were noted.

3.6.9 Severe dense vegetation growth in various locations of the existing precinct was noted.

The above defects and damages to the existing external works are as a result of the lack of maintenance as well as deterioration and dilapidation of the existing building materials.

Photograph 21 : Showing the existing masonry boundary wall leaning / rotating.

Photograph 22 : Showing severe damage to the premix and sub base layers around existing manholes.

Photograph 23 : Showing existing silted stormwater gulley.

Photograph 24 : Showing severe 'crocodile cracking' of the existing premix layer.

4. RECOMMENDATIONS AND CONCLUSION

As per our observations and findings, we recommend that all items noted in this report must be attended to urgently to prevent further deterioration of these buildings. We recommend that the following be carried out :

4.1 An Entomologist must be appointed to assess and advise on the integrity of all existing timber structures / elements.

4.2 All vegetation growth internal and external of all buildings must be removed and discarded off site.

4.3 All plaster and structural cracks must be repaired in accordance with the Structural Engineer's specification and details.

4.4 All moisture damage to existing elements must be investigated further and all repairs to be carried out in accordance with the Heritage Architect's and Structural Engineer's details.

4.5 All new waterproofing to be carried out in accordance with the Architect and Structural Engineer's specification and details.

4.6 The repairs to concrete elements must be carried in accordance with Structural Engineer's specifications and details.

4.7 In our opinion, the timber roof structures to all buildings may be structurally unstable due to the severe moisture damage and is to be further inspected by an Entomologist for damage due to pest infestation.

4.8 In our opinion, all suspended timber floors and staircases are structurally unstable and are to be demolished and replaced with new to Architects and Structural Engineers details and specifications. We recommend further investigation regarding the existing suspended timber floor slabs and foundations - a contactor must be appointed to expose floor coverings in order for the Structural Engineer to carry out further site investigations.

4.9 Based on the further investigations as described in Item 4.8 above, we also recommend that a Geotechnical Engineering Specialist / Materials Specialist be appointed to carry out a 'field investigation' and provide a report describing the existing soil / ground / material and founding element conditions.

4.10 In our opinion, these buildings are a safety hazard should they be occupied. We recommend the existing building be evacuated and cordoned off immediately until all repair works to the building has been completed and the building is deemed safe for occupancy.

4.11 We recommend that a Civil Engineer be appointed to investigate and further assess the existing status and functionality of the existing external works.

4.12 We strongly recommend that this report must be tabled for discussion amongst the Team and the appointed Heritage Architect to provide the guidance prior to any decision making by the Principal Agent in order to proceed to the next stage of the project.

5. ARCHITECTURAL QUESTIONNAIRE FOR STRUCTURAL ENGINEER'S RESPONSE

5.1 Assessment of existing load bearing structures :

As per our visual on-site assessment of the existing structure, majority of the load bearing elements appear to be structurally sound. In order to fully determine the structural integrity of the existing building, the following material testing is required :

a) Masonry material testing.
b) Concrete core samples.
c) Rebar scanning.
d) Geotechnical Engineer to confirm the existing foundations.

5.2 Interventions can use new material :

The existing masonry walls appear to be structurally sound and stable. However, material testing is required to confirm the structurally integrity of the existing masonry walls, to determine if reinforced concrete beams or structural steel beams should or could be utilised.

5.3 The floors of Block A will need replacement :

The existing timber floor structures are severely damaged due to moisture ingress and pest infestation. The damaged existing timber floor structures need to be removed and replaced.

An Entomologist must be appointed to inspect the existing timber floor slats and joists for damage due to pest infestation and moisture ingress. If the timber joists are severely damaged, structural steel beams could be utilised as the support structure. Timber slats that are not severely damaged can be salvaged and re-used once approved by the Structural Engineer.

5.4 The loft in Block A is to be restored with timber :

The existing timber floors structure of the loft are severely damaged due to moisture ingress and pest infestation. The damaged existing timber floor structure needs to be removed and replaced.

An Entomologist must be appointed to inspect the existing timber floor slats and joists for damage due to pest infestation and moisture ingress. If the timber joists are severely damaged, structural steel beams could be utilised as the support structure. Timber slats that are not severely damaged can be salvaged and re-used once approved by the Structural Engineer.

As per our visual on-site assessment, the existing structure appears to be structurally stable. However, material testing is required to confirm the structurally integrity of the existing masonry walls to determine if reinforced concrete beams or structural steel beams should or could be utilised.

5.5 Existing slabs in Blocks C and F are to be assessed for proposed loading :

The existing structure is over 100 years old and would have been designed to the latest loading codes available at the time namely, SABS 0160-1980. In the absence of 'As Built' drawings and based on the above information, the Structural engineers would have designed and allowed for the following loads :

	Maximum Capacity			
Block	**SABS 0160-1980**		**SANS 10160-2:2011**	
	Load Category and Description	**Minimum Uniformly Distributed Load**	**Load Category and Description**	**Minimum Uniformly Distributed Load**
Block A	Load category 5 – Institutional occupancies.	3kN/m²	Load category C1 – Areas in cafés, restaurants.	3kN/m²
Block C	Load category 5 – Institutional occupancies.	3kN/m²	Load category C3 – Areas in museums, exhibition rooms and administration buildings.	5kN/m²
Block F	Load category 5 – Institutional occupancies.	3kN/m²	Load category B2 – Public libraries. NOTE : For stack areas, the live load will increase 2,5kN/m² per metre of stack height.	3kN/m²
Block G	Load category 5 – Institutional occupancies.	3kN/m²	Load category C5 – Exhibition hall.	5kN/m²
Chapel	Load category 5 – Entertainment.	3kN/m²	Load category E1 – Production workshops with lightweight equipment.	3kN/m²

Block A :

The live load that the structure is assumed to have been designed to, based on SABS 0160-1980, is **3kN/m².** According to SANS 10160-2:2011, the required live load for the new loading conditions of the existing structure is **3kN/m².** The new required live load from SANS 10160-2:2011 is the same as the assumed designed live load from SABS 0160-1980. Therefore, no additional live load will be applied to the existing structure and the stability of the existing structure should be maintained. Material testing is required to confirm the structural integrity of the existing masonry walls to determine if reinforced concrete beams or structural steel beams should be utilised.

Block C :

The live load that the structure is assumed to have been designed to, based on SABS 0160-1980, is **3kN/m².** According to SANS 10160-2:2011, the required live load for the new loading conditions of the existing structure is **5kN/m².** The new required live load from SANS 10160-2:2011 is greater than the assumed designed live load from SABS 0160-1980.

Since there will be an additional live load of **2kN/m²** applied onto the existing structure, structural intervention will be required in order to accommodate the additional load onto the existing structure. Material testing will be required to determine the integrity of the existing masonry walls for the additional structural elements required.

Block F :

The live load that the structure is assumed to have been designed to, based on SABS 0160-1980, is **3kN/m².** According to SANS 10160-2:2011, the required live load for the new loading conditions of the existing structure is **3kN/m².** The new required live load from SANS 10160-2:2011 is the same as the assumed designed live load from SABS 0160-1980. Therefore, no additional live load will be applied to the existing structure and the stability of the existing structure should be maintained. Material testing is required to confirm the structural integrity of the existing masonry walls to determine if reinforced concrete beams or structural steel beams should be utilised.

5.6 Water damaged floors to be assessed :

All timber floors that were assessed in Blocks A, C and F were found to be severely damaged due to moisture and pest infestation. Most of the timber floor slats are structurally unstable and need to be removed and replaced.

The timber joists need to be assessed for damage due to moisture or pest infestation. If the timber joists are severely damaged, structural steel beams could be used to support the new timber slats.

5.7 Brickwork affected by roots and trees to be assessed :

The masonry walls were assessed in Blocks A, C, F, G and in the Chapel. The masonry walls appear to be structurally sound but cracks were noted. Minor cracks that were observed in the walls were found to be plaster cracks. Severe cracks were found to be due to vegetation growing along the walls. Moderate cracks to walls must be repaired as per attached brickwork / blockwork stitching repair details and specifications (Annexure B). Masonry walls that cannot be repaired in accordance with Annexure be must be carefully demolished and reconstructed to the Structural Engineers specification and details. Existing brickwork to be stored safely on site for re-use.

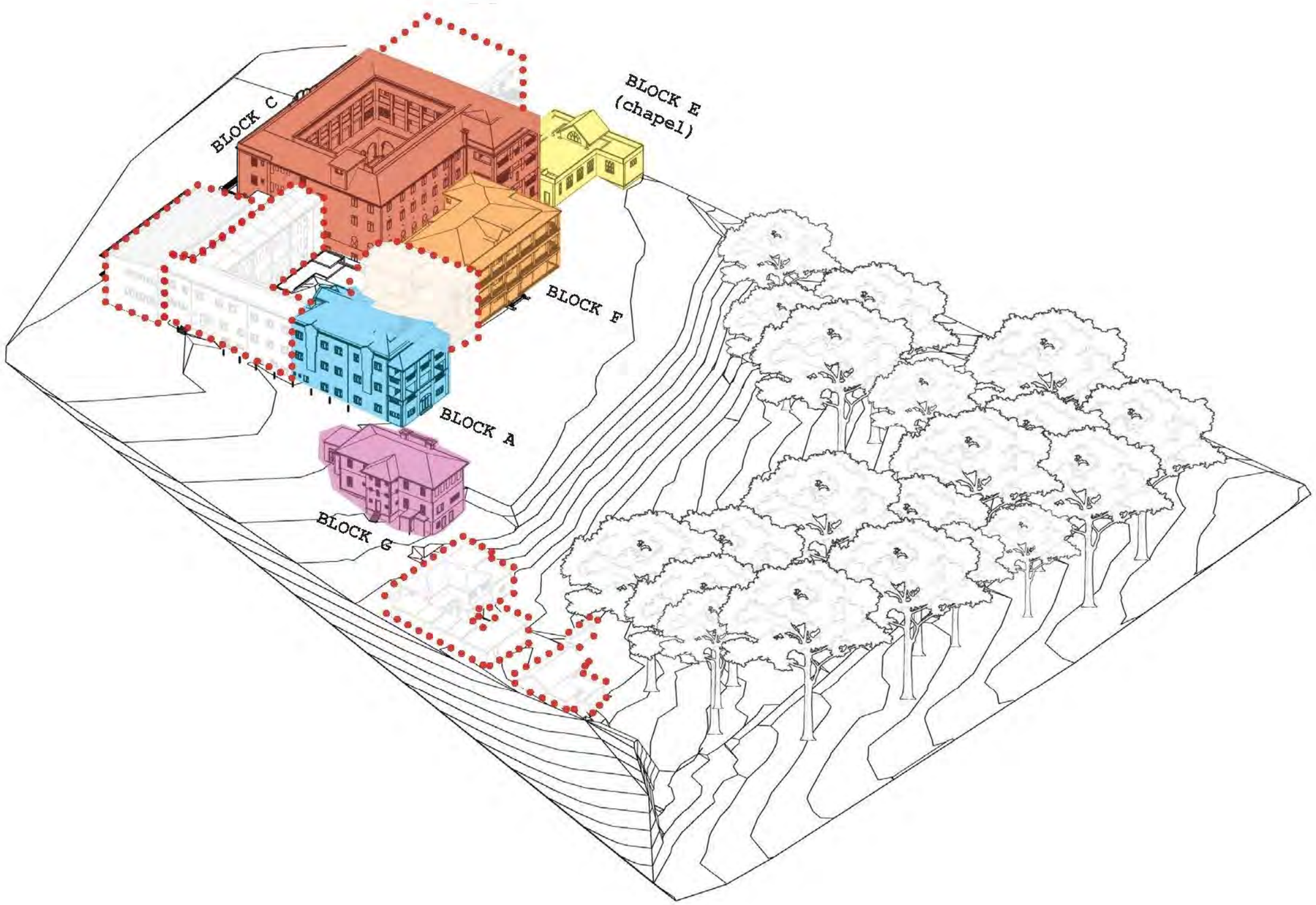
5.8 Methods to be provided for stabilisation of cracked brickwork.

All cracked masonry walls must be repaired as per the attached brickwork / blockwork stitching repair details and specifications (Annexure B).

End of report.

ANNEXURE A

SITE PLAN SHOWING BUILDING POSITIONS



ANNEXURE : A

ANNEXURE B

BRICKWORK / BLOCKWORK STITCHING REPAIR DETAILS AND SPECIFICATIONS

GENERAL PLASTER REPAIRS &
BRICKWORK/BLOCKWORK STITCHING REPAIRS SPECIFICATIONS

GENERAL PLASTER 'CRACK' REPAIRS:

1. RECOMMENDATIONS & SPECIFICATIONS:

ALL PLASTER 'CRACKING' MUST BE REPAIRED AS SPECIFIED BELOW. THE CONTRACTOR IS ALSO REQUIRED TO DETERMINE IF ANY CRACKS IN THE PLASTER HAVE BEEN TRANSFERRED TO THE BLOCKWORK / BRICKWORK. (CONTRACTOR IS REQUIRED TO CUT 100mm LONG x 20mm WIDE INSPECTION SLOT). IF A CRACK HAS TRANSFERRED TO THE BLOCKWORK / BRICKWORK, THEN IT NEEDS TO BE REPAIRED AS SET OUT IN THE SPECIFICATION FOR BLOCKWORK / BRICKWORK 'STITCHING'.

1.1 SPECIFICATION FOR GENERAL 'PLASTER' REPAIR:

BREAK OUT AND REMOVE DAMAGED PLASTER TO 50mm INTO SOUND PLASTER. CLEAN WALL AND APPLY 'SIKA PLASTERSTIK' OR SIMILAR APPROVED BONDING AGENT TO MANUFACTURER'S SPECIFICATIONS. RE-PLASTER WALL AND PAINT TO ARCHITECTS SPECIFICATIONS.

1.2 SPECIFICATION FOR PLASTER REPAIR 'CRACKING':

RAKE OUT CRACK 6mm x 6mm DEEP. CLEAN OUT ALL DEBRIS/LOOSE MATERIAL. FILL WITH ACRYLIC FILLER - 'SIKACRYL' OR SIMILAR APPROVED TO MANUFACTURERS SPECIFICATIONS. PAINT TO ARCHITECTS SPECIFICATIONS.

1.3 SPECIFICATION FOR BLOCKWORK / BRICKWORK 'STITCHING' REPAIR:

" RAKE OUT CRACK. REMOVE ALL DEBRIS / LOOSE MATERIAL.
" STITCH CRACK IN BLOCKWORK / BRICKWORK WITH R8 REINFORCING RODS.
" R8 REINFORCING RODS ARE TO BE 300mm LONG WITH 50mm BENDS AT BOTH ENDS - TOTAL LENGTH = 400mm.
" R8 REINFORCING RODS ARE TO BE EPOXY GROUTED WITH 'PROSTRUCT 617 GENERAL PURPOSE EPOXY ADHESIVE' OR SIMILAR APPROVED AT 250mm CENTRES, AND GROUTED INTO (10mm DEEP) SLOTS CUT INTO BLOCKWORK / BRICKWORK AND WITH (60mm DEEP) 10mm Ø DRILL HOLES AT EACH END TO ACCOMMODATE THE BENDS OF THE REINFORCING RODS.
" ALL SLOTS AND DRILL HOLES TO BE COMPLETELY FILLED WITH EPOXY ADHESIVE.
" ALL SLOTS TO BE CUT PERPENDICULAR TO THE CRACK IN THE BLOCKWORK / BRICKWORK.
" EPOXY ADHESIVE APPLICATION TO BE AS PER MANUFACTURERS' SPECIFICATIONS.
" APPLY 'SIKA PLASTERSTIK' AND RE-PLASTER WALL, HOWEVER IF LARGE AREAS OF PLASTER HAS BEEN REMOVED, 450mm WIDE 'CHICKEN WIRE MESH' MUST BE 'TACKED ON' OVER THE CRACKED AREA PRIOR TO RE-PLASTERING.
" RE-PAINT PLASTER TO ARCHITECTS SPECIFICATIONS.

FOR INFORMATION

PROJECT	DETAILS	DATE	REVISION
NATIONAL HERITAGE COUNCIL SOUTH AFRICA KZN MUSEUM	GENERAL PLASTER REPAIRS & BRICKWORK/BLOCKWORK STITCHING REPAIRS SPECIFICATIONS	2021.05.31	P1
		PROJECT No. 200-405	SKETCH No. Sk 01