

## **Refurbishment and Upgrading of uMsunduzi Museums Buildings**

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## **DRAWINGS**

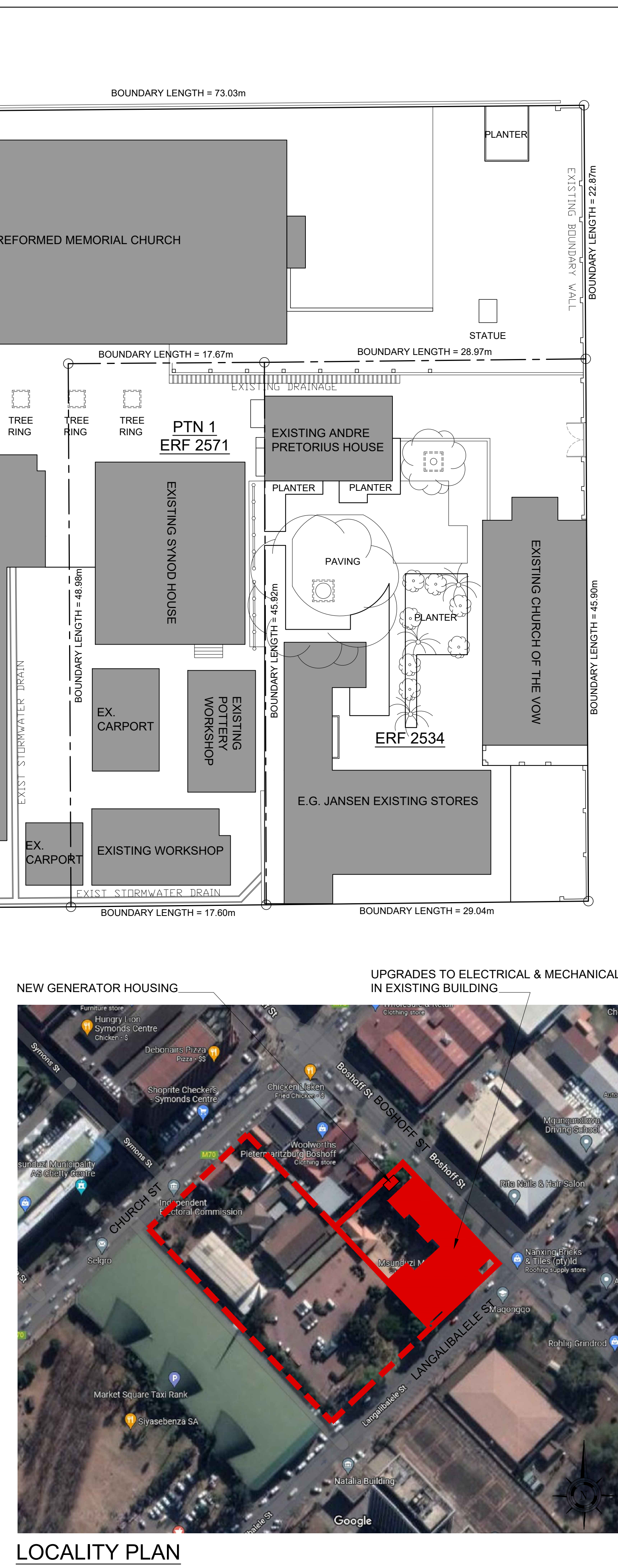
## **Refurbishment and Upgrading of uMsunduzi Museums Buildings**

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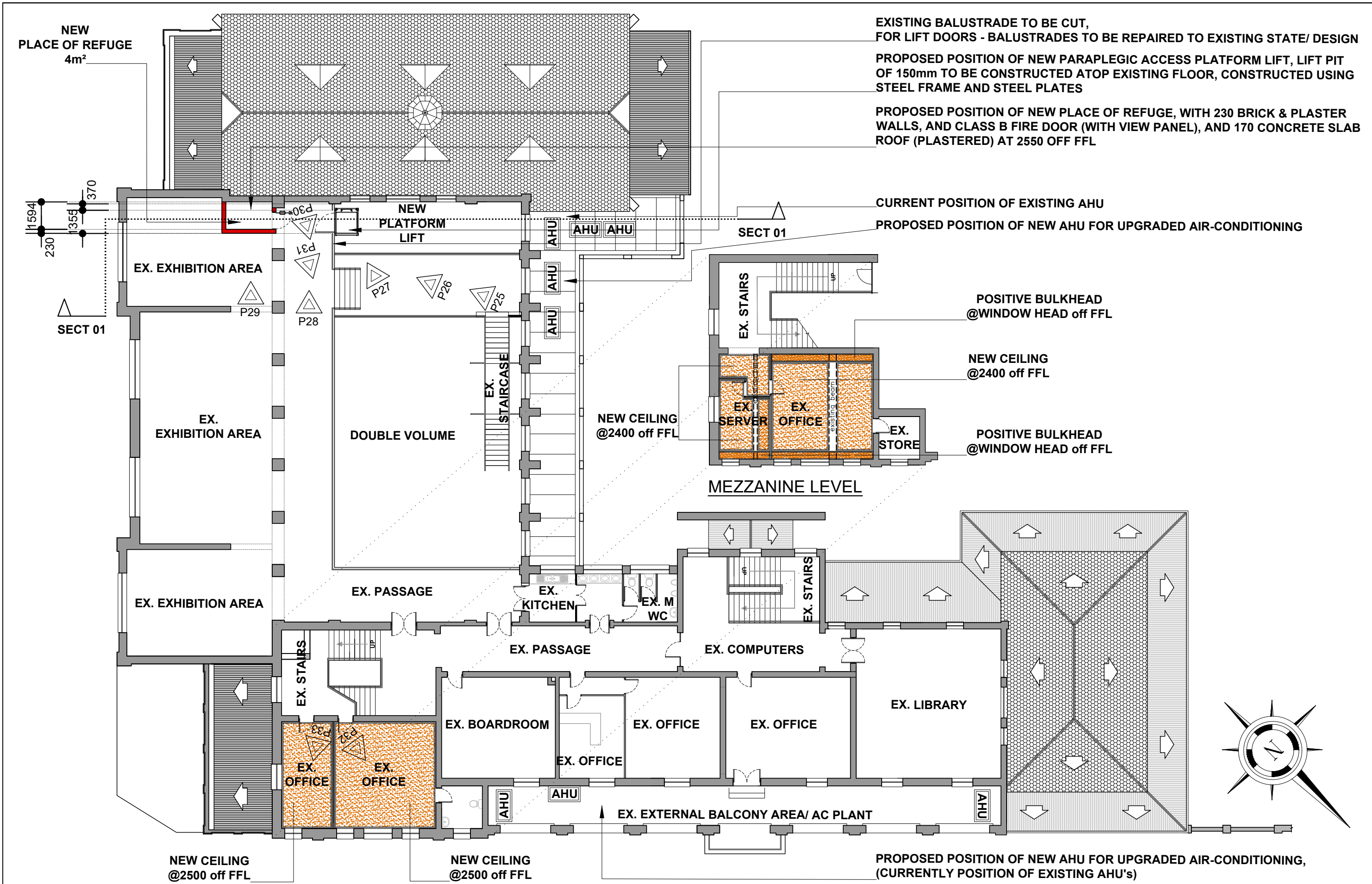
### **Architectural Drawings**



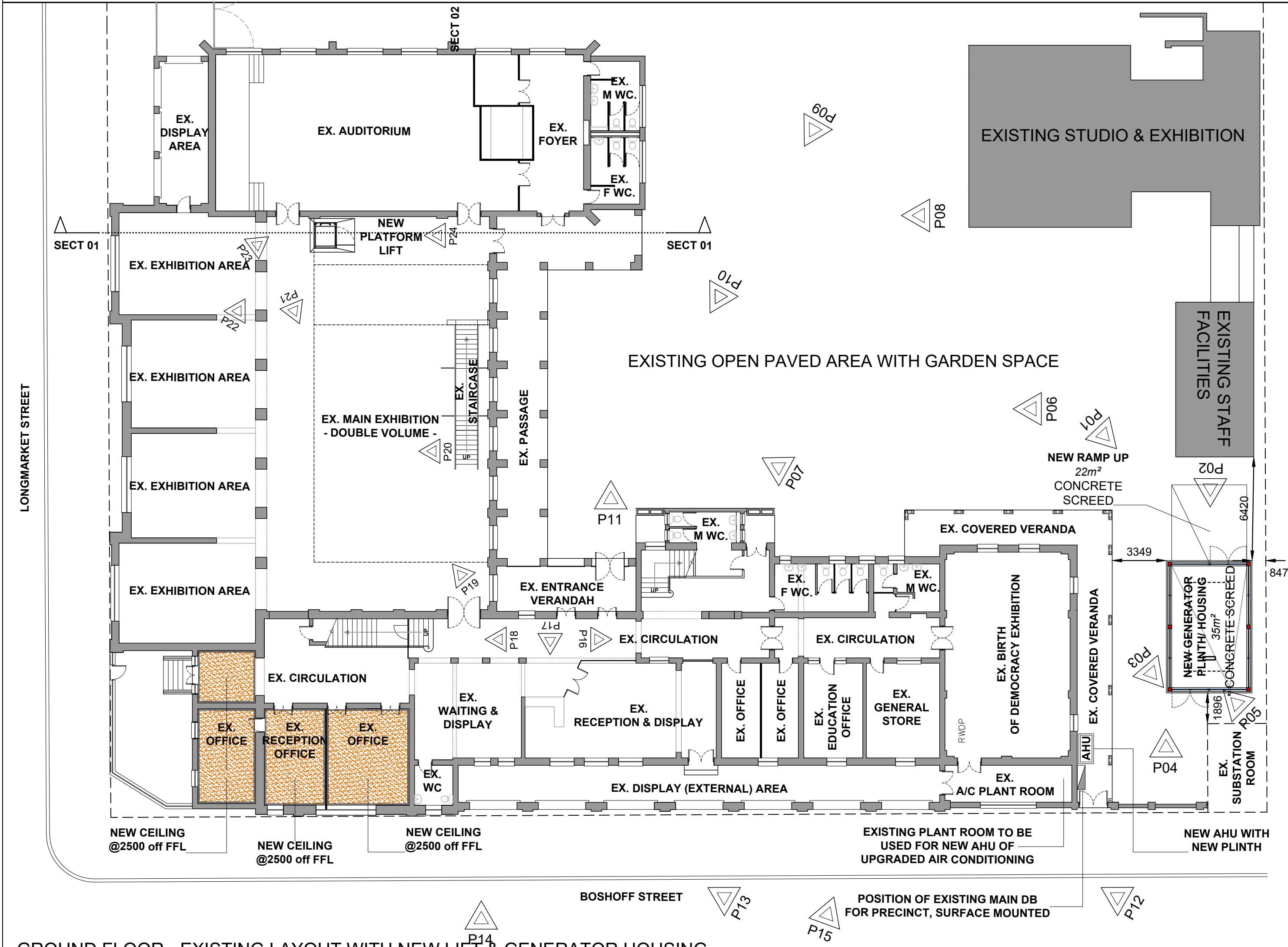


REFER TO 5044-101 ROOF PLAN FOR  
BALANCE OF THE GENERAL NOTES

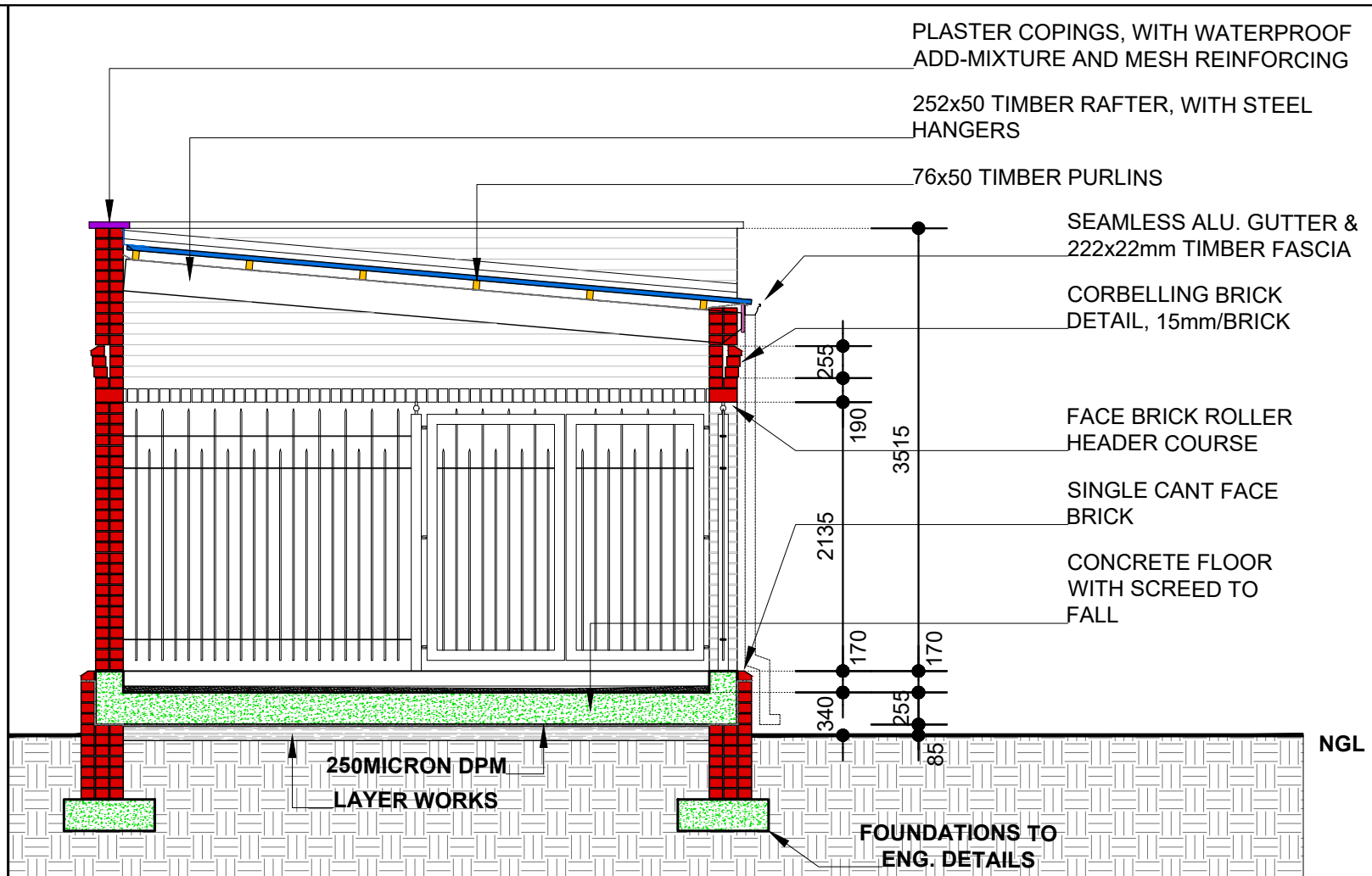




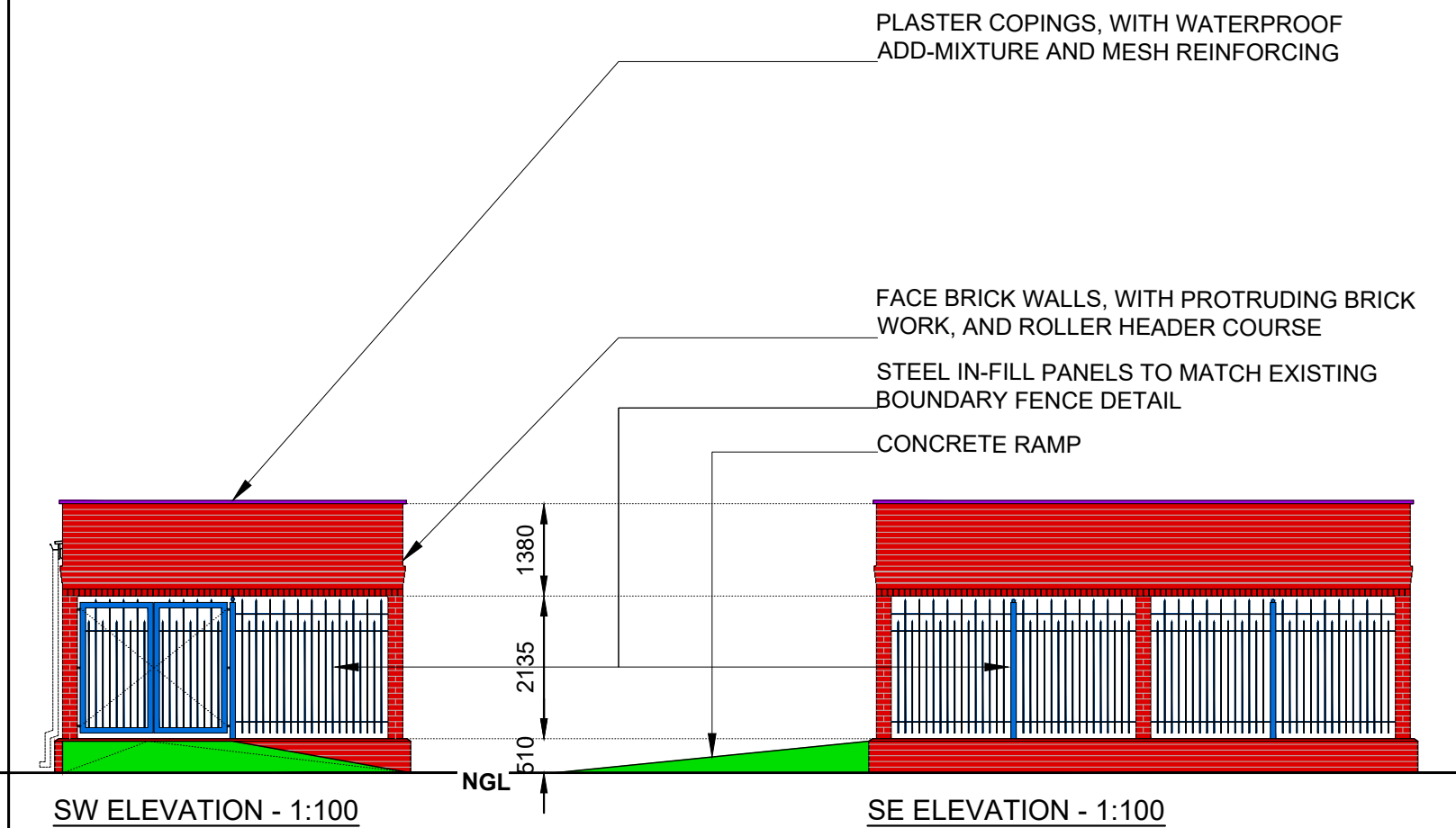
FIRST FLOOR - EXISTING LAYOUT WITH NEW LIFT



GROUND FLOOR - EXISTING LAYOUT WITH NEW LIFT & GENERATOR HOUSING

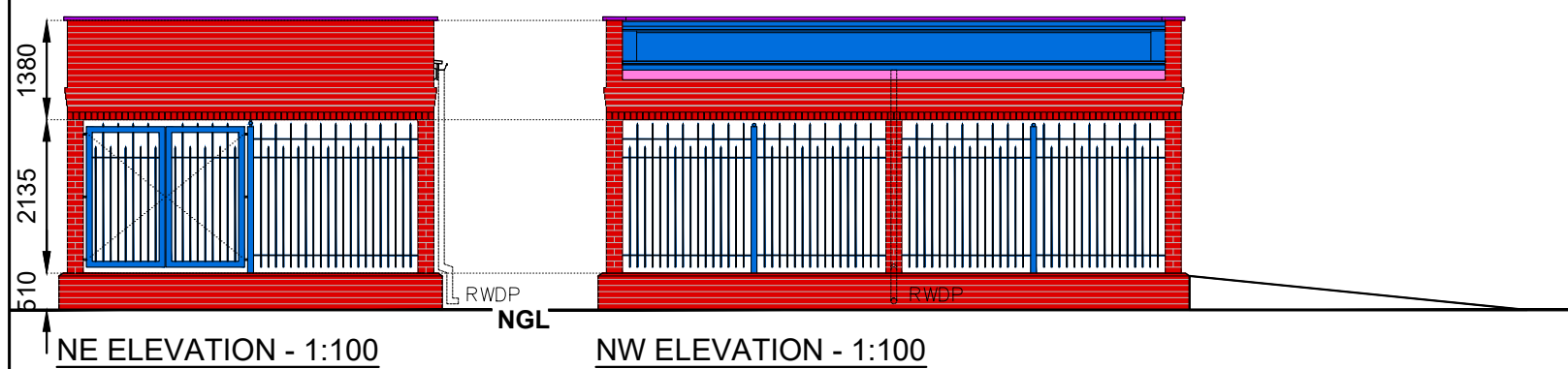


CROSS SECTION - 1:50



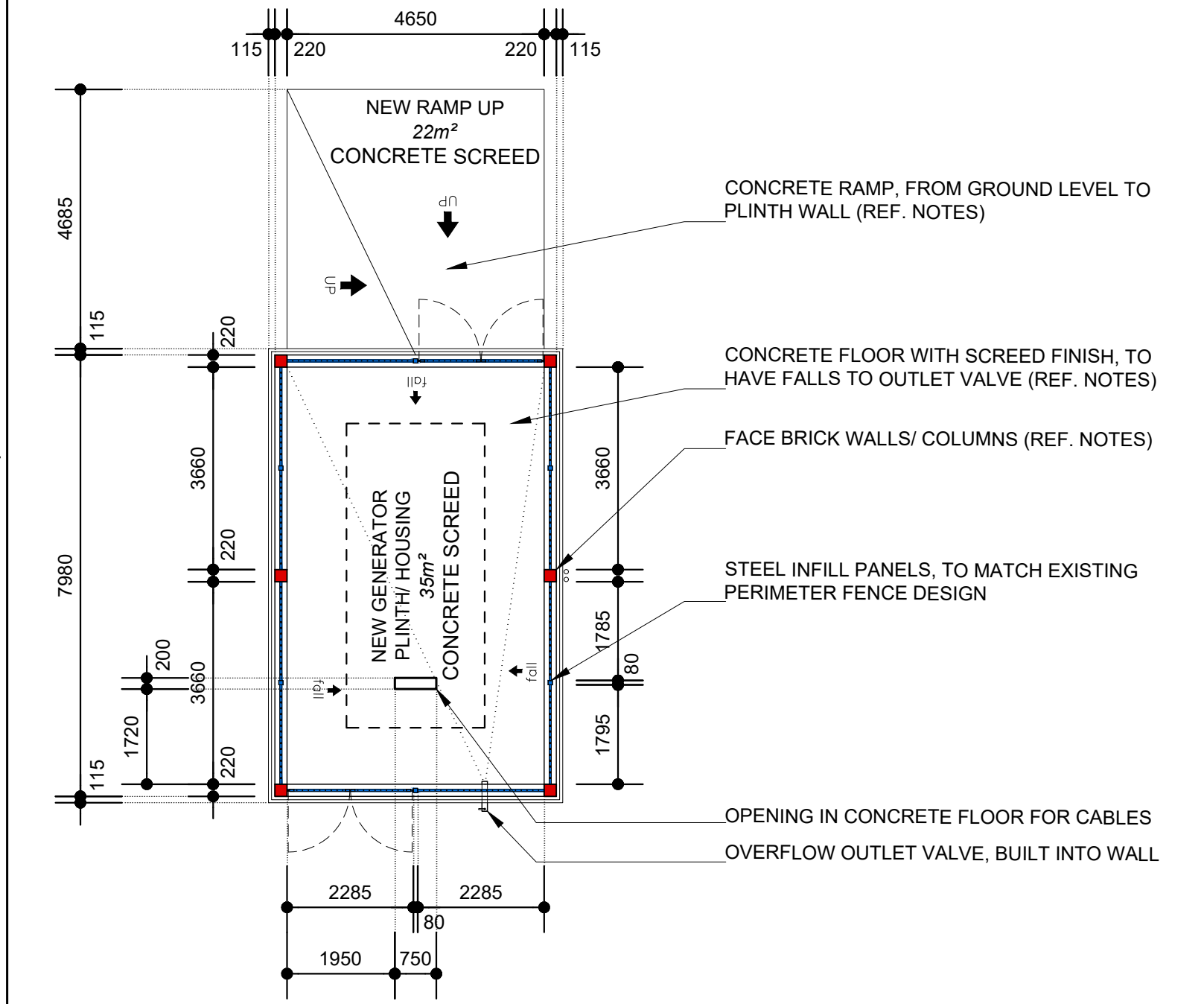
SW ELEVATION - 1:100

SE ELEVATION - 1:100



NE ELEVATION - 1:100

NW ELEVATION - 1:100

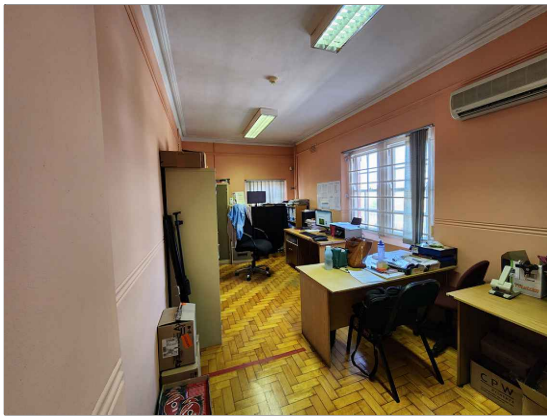
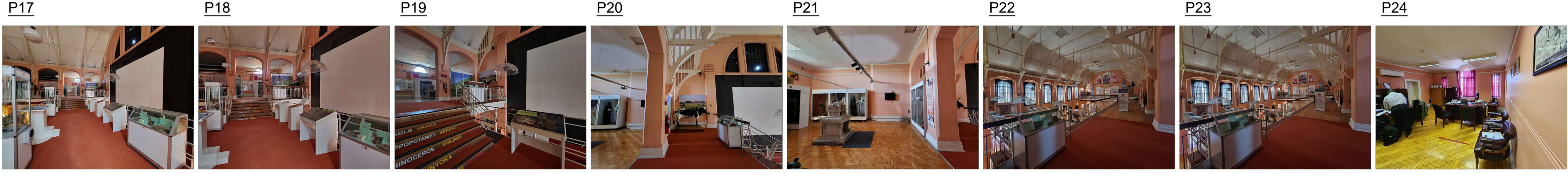


PLAN - 1:100

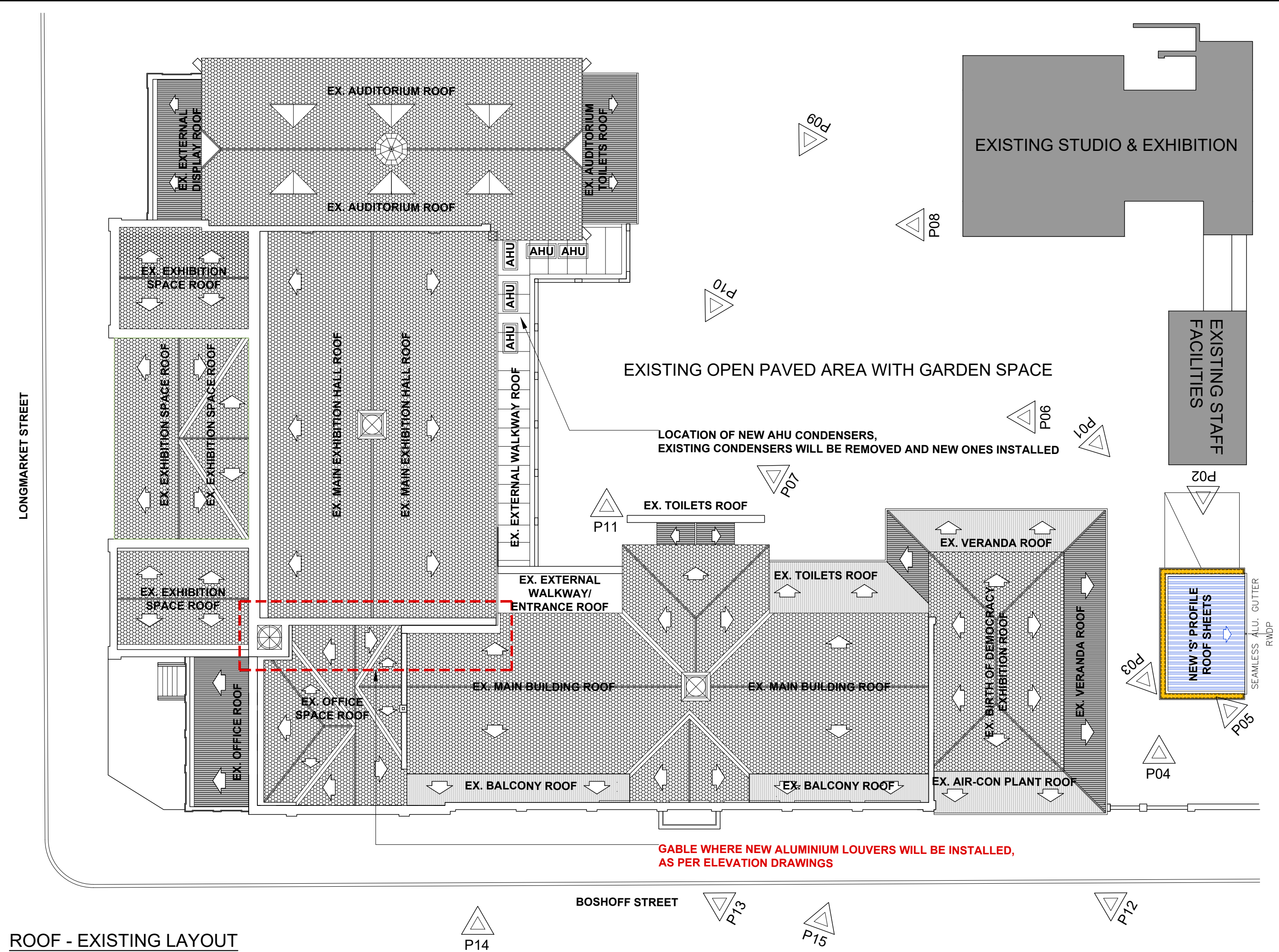
NEW GENERATOR HOUSING

GENERAL NOTES		MUNICIPAL STAMPS	
<p><b>SITE:</b></p> <p>S1. SET OUT TO BE DONE BY LAND SURVEYOR</p> <p>S2. ALL LAYER WORKS AND SITE WORK TO BE IN ACCORDANCE TO ENGINEERS DETAILS AND SPECIFICATIONS, ENGINEERS DRAWINGS AND ARCHITECTS DRAWINGS TO BE READ IN CONJUNCTION WITH EACH OTHER AT ALL TIMES</p> <p>S3. ALL STORM WATER TO ENGINEERS DETAILS AND SPECIFICATIONS</p> <p>S4. ALL SITE HEALTH &amp; SAFETY TO BE COMPLIED TO IN TERMS OF THE SANS-10400 NATIONAL BUILDING REGULATIONS AND AGREED BUILDING CONTRACT</p> <p>S5. SOLID HOARDING TO BE IN PLACE AT SECTIONS TO BE WORKED ON PRIOR TO ANY WORK COMMENCING ON SITE</p> <p><b>FOUNDATIONS:</b></p> <p>F1. ALL FOUNDATIONS, SURFACE BEDS, SLABS, RAFTS, RETAINING WALLS ETC TO BE IN ACCORDANCE TO ENGINEERS DETAILS AND SPECIFICATIONS. ALL TO BE ON WELL COMPACTED LAYER WORKS &amp; 250 MICRON DPMs &amp; TO HAVE SOIL POISON TREATMENT WITH 5 YEAR GUARANTEE</p> <p>F2. ALL FOUNDATIONS NOT DESIGNED BY PROFESSIONAL ENGINEER TO BE IN ACCORDANCE WITH THE SANS-10400 NATIONAL BUILDING REGULATIONS</p> <p><b>WALLS:</b></p> <p>W1. WALLS TO BE 230 &amp; 115 COROBRIK FBX CLAY BRICK WALLS (EXTERNAL) &amp; 230 CLAY BRICK WITH PLASTER WALLS (INTERNAL)</p> <p>W2. EXTERNAL WALLS TO BE RED FACE BRICK, COROBRIK FIRELIGHT SATIN FBX, WHERE NEW WALL MEETS OLD ALL COURSES TO BE PROPERLY TOOTHED IN</p> <p>W3. INTERNAL WALLS TO BE REPAIRED AND PLASTERED WHERE REPAIR IS BEING DONE (IF NEED BE), PLASTER MIX TO BE AS PER APPROVED MIXTURE RATIO, ALL READY TO RECEIVE A 3 COAT PAINT SYSTEM</p> <p>W4. PLASTER WALL &amp; WALL COPING PAINT - 1x COAT DULUX TRADE PLASTER PRIMER, 2X COATS DULUX PEARLGLO.</p> <p><b>ROOF:</b></p> <p>R1. GRS 0.53mm ALU-ZINC COATED (COLORPLUS - SLATE) 'IBR' PROFILE ROOF SHEETS, ON 76mm TIMBER PURLINS ON 252mm TIMBER RAFTERS - TO ENGINEERS DETAILS &amp; SPECIFICATIONS (TIMBER TO BE FULLY TREATED HIGH GRADE SA-PINE) &amp; PAINTED TIMBER EXTERNAL - 1x COAT DULUX WOOD PRIMER, 1x COAT DULUX TRADE UNIVERSAL UNDERCOAT, 1x DULUX TRADE GLOSS 100 ENAMEL, TIMBER TO BE FULLY PAINTED ON AREAS WHERE SUPPORT FIXINGS ARE PRIOR TO INSTALLING</p> <p>R2. 170mm THICK CONCRETE ROOF, PLASTERED AND PAINTED - 1x COAT DULUX TRADE PLASTER PRIMER, 2X COATS DULUX PEARLGLO.</p> <p>R3. ALL ROOFS TO HAVE 'SISALATION 405' REFLECTIVE FOIL UNDER PURLIN UNDERLAY THROUGHOUT, ALL TO HAVE 150mm HEAD LAPS</p> <p>R4. NEW ROOF TO HAVE 80mmØ PVC RAIN WATER DOWNPIPE, FITTED TO WALL WITH STANDARD PVC MOUNTING BRACKETS</p> <p>R5. NEW ROOF TO HAVE STANDARD OGEE SEAMLESS ALU. GUTTER, TO MATCH ROOF SHEET.</p> <p>R6. NEW ROOF TO HAVE 222x22mm FASCIA BOARD FIXED TO RAFTERS, TO BE PAINTED SAME AS RAFTERS</p> <p><b>CEILINGS:</b></p> <p>C1. CEILINGS TO BE PELICAN JUMBO SUSPENDED GRID, SCREW-UP SKIMMED JOINT 9mm THICK GYPSUM BOARD, IN ACCORDANCE TO 'SABISA', WITH TIMBER CORNICE TO MATCH EXISTING CORNICE IN PROFILE EXACTLY.</p> <p>C2. ALL BULKHEADS TO BE 22mm MDF BOARDS ON SAME GRID SYSTEM AS CEILINGS, TO BE PAINTED SAME AS CEILING, WITH 25x25mm 'L' CORNICE ON WALLS</p> <p>C3. ALL PENETRATIONS THROUGH EXISTING SUSPENDED MESH AND PLASTER CEILING, TO BE KEPT TO A MINIMUM AND DONE WITH EXTREME CAUTION, ALL TO HAVE REINFORCED SUB-FRAME INSTALLED PRIOR TO CUTTING. PERIMETER OF CUT TO HAVE NEW SURROUND EDGE TRIM DONE USING 45x6mm TIMBER STRIPS (PAINTED FINISH)</p> <p>C4. REFUGE ROOM TO HAVE PLASTERED SOFFIT, 15mm THICK, PAINTED TO MATCH CEILING.</p> <p>C5. CEILING PAINT - 1x COAT DULUX PLASTER/ TIMBER PRIMER, 2x COATS DULUX TRADE 65 MATT.</p> <p><b>PLUMBING:</b></p> <p>P1. ALL PLUMBING TO BE DONE BY REGISTERED PLUMBER, PLUMBING SIGN-OFF TO BE ISSUED AT END OF CONTRACT</p> <p>P2. ALL PLUMBING TO COMPLY WITH SANS 10400-P &amp; 10400-XA &amp; SANS 10252-1:2004, SANS 1307, SANS 10106, SANS 10254 &amp; SANS 10252-1.</p> <p><b>FLOORING:</b></p> <p>FL1. CONCRETE FLOOR WITH HARDENED SCREED AND ANTI-DUSTING AGENT, TO HAVE SMOOTH TROWEL FINISH.</p> <p>FL2. CONCRETE RAMP WITH HARDENED SCREED AND ANTI-DUSTING AGENT, TO HAVE NON-SLIP FLOAT FINISH.</p> <p>FL3. REFUGE FLOOR TO BE 30mm GRANO ANTI DUSTING SCREED ON EXISTING CONCRETE FLOOR</p> <p>FL4. ALL SOIL TO BE TREATED WITH APPROVED TERMITE TREATMENT, PRIOR TO FOUNDATIONS BEING CAST AND PAVING BEING LAID, WITH A 5 YEAR GUARANTEE ISSUED.</p> <p><b>WINDOWS &amp; DOORS:</b></p> <p>W1. ALL EXISTING WINDOWS AND DOORS TO BE FULLY PROTECTED AT ALL TIMES, ANY DAMAGE TO THESE WILL BE RECTIFIED AT THE CONTRACTORS COST</p> <p>W2. PAINTED TIMBER INTERNAL - 1x COAT DULUX WOOD PRIMER, 1x COAT DULUX TRADE UNIVERSAL UNDERCOAT, 1x DULUX TRADE EGGSHELL ENAMEL</p> <p>W3. PAINTED TIMBER EXTERNAL - 1x COAT DULUX WOOD PRIMER, 1x COAT DULUX TRADE UNIVERSAL UNDERCOAT, 1x DULUX TRADE GLOSS 100 ENAMEL</p> <p>W4. NEW ALUMINIUM GABLE GRILLES TO BE INSTALLED (AS PER NE ELEVATION) ALL TO THE MECHANICAL ENGINEERS DRAWINGS &amp; SPECIFICATIONS.</p> <p><b>REFER TO 5044-101 ROOF PLAN FOR BALANCE OF THE GENERAL NOTES</b></p>			
<p><b>MECHANICAL &amp; ELECTRICAL:</b></p> <p>M1. ALL MECHANICAL EXTRACTION AND VENTILATION TO BE DONE IN ACCORDANCE WITH THE MECHANICAL ENGINEERS DESIGN AND DETAILS.</p> <p>E1. ALL LIGHTING AND ELECTRICAL RETICULATION TO BE DONE IN ACCORDANCE TO ELECTRICAL ENGINEERS DESIGN AND DETAILS.</p>			
<p>Occupancy Classification : C2</p>			
<p><b>Owner:</b></p> <p>Name: uMSUNDUZI MUSEUM</p> <p>Sign: _____ Date: _____</p>			
<p><b>Architect:</b></p> <p>Name: JA Meintjes</p> <p>Sign: _____ Date: _____</p> <p>Professional registration No.: 6428</p>			
<p><b>BARTSCH</b></p> <p>LADYSMITH: TEL(035) 831 1888, P.O.BOX 1697, LADYSMITH 3370 QUEENSTOWN: TEL(045) 839 5728, HARRISMITH: TEL(058) 623 471 EAST LONDON: TEL(043) 727 0765, BLOEMFONTEIN: TEL(051) 300 547 CAPE TOWN: TEL(021) 252 225, PRETORIA: TEL(012) 346 0526 WINDHOEK: TEL(0926461) 237 403, FMB: TEL(033) 347 1325</p>			
<p>Project:</p> <p>PROPOSED UPGRADES AND INSTALLATION OF ELECTRICAL &amp; MECHANICAL WORKS: MAIN BUILDING (BLOCK M) - uMSUNDUZI MUSEUM, ERF 2535, 351 LANGALIBALELE STREET, PIETERMARITZBURG, KZN, 3201</p>			
<p>Drawing Description:</p> <p>PLAN - EXISTING GROUND FLOOR LAYOUT WITH NEW GENERATOR HOUSING</p>			
<p>Drawn: REC P Date: AUG 2022 Stage: Const.</p> <p>Scale/s: 1:200 @ A1 Checked: Revision: 00</p> <p>Drawing number: 5044 - 100</p>			





PHOTOS - EXISTING BUILDING



ROOF - EXISTING LAYOUT

ROOF - NEW ROOF LAYOUT

GENERAL NOTES

**SITE:**  
S1. SET OUT TO BE DONE BY LAND SURVEYOR  
S2. ALL LAYER WORKS AND SITE WORK TO BE IN ACCORDANCE TO ENGINEERS DETAILS AND SPECIFICATIONS, ENGINEERS DRAWINGS AND ARCHITECTS DRAWINGS TO BE READ IN CONJUNCTION WITH EACH OTHER AT ALL TIMES  
S3. ALL STORM WATER TO ENGINEERS DETAILS AND SPECIFICATIONS  
S4. ALL SITE HEALTH & SAFETY TO BE COMPLIED TO IN TERMS OF THE SANS-10400 NATIONAL BUILDING REGULATIONS AND AGREED BUILDING CONTRACT  
S5. SOLID HOARDING TO BE IN PLACE AT SECTIONS TO BE WORKED ON PRIOR TO ANY WORK COMMENCING ON SITE

**FOUNDATIONS:**  
F1. ALL FOUNDATIONS, SURFACE BEDS, SLABS, RAFTS, RETAINING WALLS ETC TO BE IN ACCORDANCE TO ENGINEERS DETAILS AND SPECIFICATIONS. ALL TO BE ON WELL COMPACTED LAYER WORKS & 250 MICRON DPMs & TO HAVE SOIL POISON TREATMENT WITH 5 YEAR GUARANTEE  
F2. ALL FOUNDATIONS NOT DESIGNED BY PROFESSIONAL ENGINEER TO BE IN ACCORDANCE WITH THE SANS-10400 NATIONAL BUILDING REGULATIONS

**WALLS:**  
W1. WALLS TO BE 230 & 115 COROBRIK FBX CLAY BRICK WALLS (EXTERNAL) & 230 CLAY BRICK WITH PLASTER WALLS (INTERNAL)  
W2. EXTERNAL WALLS TO BE RED FACE BRICK, COROBRIK FIRELIGHT SATIN FBX, WHERE NEW WALL MEETS OLD ALL COURSES TO BE PROPERLY TOOTHED IN.  
W3. INTERNAL WALLS TO BE REPAIRED AND PLASTERED WHERE REPAIR IS BEING DONE (IF NEED BE), PLASTER MIX TO BE AS PER APPROVED MIXTURE RATIO, ALL READY TO RECEIVE A 3 COAT PAINT SYSTEM.  
W4. PLASTER WALL & WALL COPING PAINT - 1x COAT DULUX TRADE PLASTER PRIMER, 2X COATS DULUX PEARLGLO.

**ROOF:**  
R1. GRS 0.53mm ALU-ZINC COATED (COLORPLUS - SLATE) 'IBR' PROFILE ROOF SHEETS, ON 76mm TIMBER PURLINS ON 252mm TIMBER RAFTERS - TO ENGINEERS DETAILS & SPECIFICATIONS (TIMBER TO BE FULLY TREATED HIGH GRADE SA-PINE) & PAINTED TIMBER EXTERNAL - 1x COAT DULUX WOOD PRIMER, 1x COAT DULUX TRADE UNIVERSAL UNDERCOAT, 1x DULUX TRADE GLOSS 100 ENAMEL, TIMBER TO BE FULLY PAINTED ON AREAS WHERE SUPPORT FIXINGS ARE PRIOR TO INSTALLING  
R2. 170mm THICK CONCRETE ROOF, PLASTED AND PAINTED - 1x COAT DULUX TRADE PLASTER PRIMER, 2X COATS DULUX PEARLGLO.  
R3. ALL ROOFS TO HAVE 'SISALATION 405' REFLECTIVE FOIL UNDER PURLIN UNDERLAY THROUGHOUT, ALL TO HAVE 150mm HEAD LAPS  
R4. NEW ROOF TO HAVE 80mmØ PVC RAIN WATER DOWNPIPE, FITTED TO WALL WITH STANDARD PVC MOUNTING BRACKETS  
R5. NEW ROOF TO HAVE STANDARD OGEE SEAMLESS ALU. GUTTER, TO MATCH ROOF SHEET.  
R6. NEW ROOF TO HAVE 222x22mm FASCIA BOARD FIXED TO RAFTERS, TO BE PAINTED SAME AS RAFTERS

**CEILINGS:**  
C1. CEILINGS TO BE PELICAN JUMBO SUSPENDED GRID, SCREW-UP SKIMMED JOINT 9mm THICK GYPSUM BOARD, IN ACCORDANCE TO 'SABISA', WITH TIMBER CORNICE TO MATCH EXISTING CORNICE IN PROFILE EXACTLY.  
C2. ALL BULKHEADS TO BE 22mm MDF BOARDS ON SAME GRID SYSTEM AS CEILINGS, TO BE PAINTED SAME AS CEILING, WITH 25x25mm 'L' CORNICE ON WALLS  
C3. ALL PENETRATIONS THROUGH EXISTING SUSPENDED MESH AND PLASTER CEILING, TO BE KEPT TO A MINIMUM AND DONE WITH EXTREME CAUTION, ALL TO HAVE REINFORCED SUB-FRAME INSTALLED PRIOR TO CUTTING, PERIMETER OF CUT TO HAVE NEW SURROUND EDGE TRIM DONE USING 45x8mm TIMBER STRIPS (PAINTED FINISH)  
C4. REFUGE ROOM TO HAVE PLASTERED SOFFIT, 15mm THICK, PAINTED TO MATCH CEILING.  
C5. CEILING PAINT - 1x COAT DULUX PLASTER/ TIMBER PRIMER, 2x COATS DULUX TRADE 65 MATT.

**PLUMBING:**  
P1. ALL PLUMBING TO BE DONE BY REGISTERED PLUMBER, PLUMBING SIGN-OFF TO BE ISSUED AT END OF CONTRACT  
P2. ALL PLUMBING TO COMPLY WITH SANS 10400-P & 10400-XA & SANS 10252-1:2004, SANS 1307, SANS 10106, SANS 10254 & SANS 10252-1.

**FLOORING:**  
FL1. CONCRETE FLOOR WITH HARDENED SCREED AND ANTI-DUSTING AGENT, TO HAVE SMOOTH TROWEL FINISH.  
FL2. CONCRETE RAMP WITH HARDENED SCREED AND ANTI-DUSTING AGENT, TO HAVE NON-SLIP FLOAT FINISH.  
FL3. REFUGE FLOOR TO BE 30mm GRANO ANTI DUSTING SCREED ON EXISTING CONCRETE FLOOR  
FL4. ALL SOIL TO BE TREATED WITH APPROVED TERNIT TREATMENT, PRIOR TO FOUNDATIONS BEING CAST AND PAVING BEING LAID, WITH A 5 YEAR GUARANTEE ISSUED.

**WINDOWS & DOORS:**  
W1. ALL EXISTING WINDOWS AND DOORS TO BE FULLY PROTECTED AT ALL TIMES, ANY DAMAGE TO THESE WILL BE RECTIFIED AT THE CONTRACTORS COST  
W2. PAINTED TIMBER INTERNAL - 1x COAT DULUX WOOD PRIMER, 1x COAT DULUX TRADE UNIVERSAL UNDERCOAT, 1x DULUX TRADE EGGSHELL ENAMEL  
W3. PAINTED TIMBER EXTERNAL - 1x COAT DULUX WOOD PRIMER, 1x COAT DULUX TRADE UNIVERSAL UNDERCOAT, 1x DULUX TRADE GLOSS 100 ENAMEL  
W4. NEW ALUMINIUM GABLE GRILLES TO BE INSTALLED (AS PER NE ELEVATION) ALL TO THE MECHANICAL ENGINEERS DRAWINGS & SPECIFICATIONS.

MUNICIPAL STAMPS

**MECHANICAL & ELECTRICAL:**  
M1. ALL MECHANICAL EXTRACTION AND VENTILATION TO BE DONE IN ACCORDANCE WITH THE MECHANICAL ENGINEERS DESIGN AND DETAILS.  
E1. ALL LIGHTING AND ELECTRICAL RETICULATION TO BE DONE IN ACCORDANCE TO ELECTRICAL ENGINEERS DESIGN AND DETAILS.

Occupancy Classification : C2

Owner: \_\_\_\_\_  
Name: \_\_\_\_\_ uMSUNDUZI MUSEUM  
Sign: \_\_\_\_\_ Date: \_\_\_\_\_

Architect: \_\_\_\_\_  
Name: \_\_\_\_\_ JA Meintjes  
Sign: \_\_\_\_\_ Date: \_\_\_\_\_  
Professional registration No.: \_\_\_\_\_ 6428

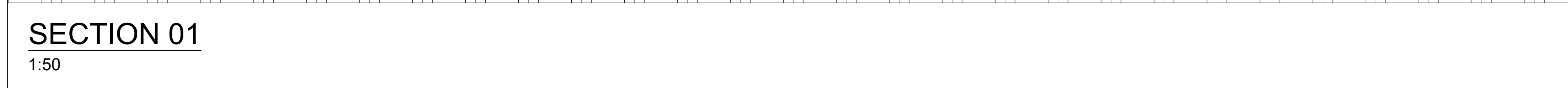
**BARTSCH**  
LADYSMITH: TEL(036) 631 1888, P.O.BOX 1697, LADYSMITH 3370  
QUEENSTOWN: TEL(045) 839 5728, HARRISMITH: TEL(058) 623 471  
EAST LONDON: TEL(043) 727 0765, BLOEMFONTEIN: TEL(051) 300 547  
CAPE TOWN: TEL(021) 252 225, PRETORIA: TEL(012) 346 0526  
WINDHOEK: TEL(0926461) 237 403, FNB: TEL(033) 347 1325

Project:  
PROPOSED UPGRADES AND INSTALLATION OF ELECTRICAL & MECHANICAL WORKS: MAIN BUILDING (BLOCK M) - uMSUNDUZI MUSEUM, ERF 2535, 351 LANGALIBALELE STREET, PIETERMARITZBURG, KZN, 3201

Drawing Description:  
PLAN - EXISTING ROOF LAYOUT WITH CURRENT SITE PICTURES

Drawn: REC P Date: AUG 2022 Stage: Const.  
Scale/s: 1:200 @ A1 Checked: \_\_\_\_\_  
Drawing number: 5044 - 101 Revision: 00





1:50

1:50

**STEEL:**

ST1. ALL STEEL TO BE MILD STEEL, PLASCON EPOXY PAINTED WITH 4 COAT SYSTEM (PRIMER, UNIVERSAL UNDERCOAT, 2x FINISH COATS)

ST2. ALL STEEL TO BE FULL SANDBLASTED CLEAN FREE OF CONTAMINATES PRIOR TO PAINT APPLICATION

ST3. ALL WELDS TO BE NEAT CONTINUOUS FILLET WELDS, CONSISTENT IN THICKNESS AND UNIFORMITY

ST4. STEEL SHOP DRAWINGS TO BE ISSUED TO ARCHITECT FOR APPROVAL, PRIOR TO ANY FABRICATION OR INSTALLATION

**MISCELLANEOUS:**

- M1. ANY DAMAGE TO SURROUNDING FINISHES, FITTINGS, SERVICES, EQUIPMENT ETC. TO BE REPAIRED AND/OR REPLACED BY CONTRACTOR.
- M2. NO ORIGINAL CIRCA 1905-1965 BUILDING FITTINGS TO REMOVED, IF REMOVED THEN THEY MUST BE KEPT IN A SECURE EXTENDED SENSITIVITY CASE & STORED IN A SAFE LOCATION TO BE REINSTEATED/ INSTALLED ONCE WORK IS COMPLETE.
- M3. STEEL PAINT FINISH, 4 COAT SYSTEM DULUX EPOXY - (1xPRIMER + 1x UNDERCOAT & 2x FINISH COATS)
- M4. REFURGE DOOR - 2HR FIRE RATED CLASS B PYROFLAME DOORSEET (950x2030x48), WITH VIEWING PANEL, IN STRICT ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS AND IN CONJUNCTION TO 'SABS' 253/2003 AND WITH ALL RELEVANT 'SABS' MARKS FOR 120min, WITH 3.6mm TREATED COMMERCIAL PLY, INCLUDING INTUMESCENT STRIP TO TOP OF DOOR, HARDWARE EDGES, SPECIFIED IRONMONGERY AND HINGED ONE SIDE TO SUITABLE 1.6mm GAUGE MILD STEEL GALV & PRIMED FRAME FOR 230 BRICK WALL
- M5. ALL COPING TO BE IN-SITU PLASTER COPING, MUST BE A EXTRA STRENGTH PLASTER MIX, WITH SIKKALAT ADD MIXTURE
- M6. ALL COPING TO BE IN SIKKATOP SEAL-107 ZA APPLIED TO TOP OF WALLS PRIOR TO BEING CAST
- M7. ALL DRAWINGS TO BE READ IN CONJUNCTION WITH EACH OTHER AND TO BE READ IN CONJUNCTION WITH THE SPECIFICATION & METHOD DOCUMENT.

Technical drawing of a door assembly showing dimensions and floor levels. The drawing includes a vertical dimension of 2050 and a horizontal dimension of 950. The door is shown with a handle and a lock. The floor levels are indicated as CONCRETE FLOOR LEVEL and FINISHED FLOOR LEVEL. The door is shown with a height of 278 and a width of 450. The door is shown with a height of 805 and a width of 1000. The door is shown with a height of 2050 and a width of 950.

**DOOR:** 2032x950mm  
 'Biticon - Rubidor' Class B fire door, or similar approved.  
 Supplied from manufacturer as a complete unit and to have 100x300mm vision panels with pyroceramic fire resistant glass. To be supplied with intumescent strip to top of door, hardwood edges.  
 Door to be installed in strict accordance to manufacturers specifications and details. And be in compliance with SABS 1253:2003 and carrying the relevant SABS mark

**STANDARD DOOR FRAME 230mm:** 1.6mm metal double rebated frame. Complete as supplied by manufacturer. **Strike Plate must be set at 1000cc from bottom of Door Panel.**

**D.FINISH:** Commercial veneer, complete as supplied by manufacturer. Undercoat and two coats gloss enamel.

**F.FINISH:** Galvanised steel frame as by manufacturer.

**FURNITURE:**

Door to be fitted with standard tested locks and closers, inclusive of heavy duty 100mm flanged stainless steel hinges (1.5 pair for standard sized door & 2 Pair for non standard sized door)

Door and door frame to be fully and correctly labeled as per regulations.

Door to have 'Refuge (GA12)' Sign fitted as per 'SANS 1186-1'

Door furniture as supplied by DORMA KABA or equally approved.

- dorkmaka MECHANICAL HOLD OPEN Cam action slide channel door closer. Max door width 1250mm.
- Closing Force 150 N±5% Adjustable strength: Hydraulic
- Control: Backcheck, Delayed action, Pull-side
- Door leaf finish (Standard): Gloss, Matt, Enamel, Polishing, Door leaf finish (Optional): Enamel, Polishing, Enamel, Polishing
- Door closer compliant with EN 1154. Hold-open devices tested to EN 1155. Door closer is CERTIFIRE approved
- Certificate No. CF 119 for door types ITT 120, MM/IMM 240
- Note: Door closer to be installed on pull side
- 400mm x 75mm x 2mm grade 304 s/s back plate with 6 holes lasered for countersunk screws. 2 only 8mm diameter holes lasered for dorkmaka fixings. Bolts to fix through plate and door.
- Dimensions: 325mm Straight Tubular Pull Handle BTB (BTB Fixing Sets included)
- dorkmaka 150x150mm REFUGE sign

**NOTE:** Max. 4mm gap all round between door and frame and in between double doors. All windows, doors & door frames to be measured on site prior to manufacture.

**SITE:**

51. SET OUT TO BE DONE BY LAND SURVEYOR
52. ALL LAYER WORKS AND SITE WORK TO BE IN ACCORDANCE TO ENGINEERS DETAILS AND SPECIFICATIONS. ENGINEERS DRAWINGS AND AGREED TOGETHS DRAWINGS TO BE READ IN CONJUNCTION WITH EACH OTHER AT ALL TIMES
53. ALL STORM WATER TO ENGINEERS DETAILS AND SPECIFICATIONS
54. ALL SITE HEALTH & SAFETY TO BE COMPLIED TO IN TERMS OF THE SANS-10400 NATIONAL BUILDING REGULATIONS AND AGREED BUILDING CONTRACT
55. SOLID HOARDING TO BE IN PLACE AT SECTIONS TO BE WORKED ON PRIOR TO ANY WORK COMMENCING ON SITE

## FOUNDATIONS:

- F1. ALL FOUNDATIONS, SURFACE BEDS, SLABS, RAFTS, RETAINING WALLS ETC TO BE IN ACCORDANCE TO ENGINEERS DETAILS AND SPECIFICATIONS. ALL TO BE ON WELL COMPACTED LAYER WORKS & 250 MICRON DPMs & TO HAVE SOIL POISON TREATMENT WITH 5 YEAR GUARANTEE
- F2. ALL FOUNDATIONS NOT DESIGNED BY PROFESSIONAL ENGINEER TO BE IN ACCORDANCE WITH THE SANS-10400 NATIONAL BUILDING REGULATIONS

**WALLS:**

- W1. WALLS TO BE 230 & 115 COROBRIK FBX CLAY BRICK WALLS [EXTERNAL] & 230 CLAY BRICK WITH PLASTER WALLS [INTERNAL]
- W2. EXTERNAL WALLS TO BE RED FACE BRICK, COROBRIK FIRELIGHT SAIN FBX, WHERE NEW WALL MEETS OLD ALL COURSES TO BE PROPERLY TIED IN.
- W3. INTERIOR WALLS TO BE REPAIRED AND PLASTERED WHERE REPAIR IS BEING DONE (IF NEEDED), PLASTER MIX TO BE AS PER APPROVED MIXTURE RATIO, ALL READY TO RECEIVE A 3 COAT PAINT SYSTEM.
- W4. PLASTER WALL & WALL COPING PAINT - 1x COAT DULUX TRADE PLASTER PRIMER, 2X COATS DULUX PEARLGLO.

**ROOF:**

1. GRS 0.53mm ALU-ZINC COATED (COLORPLUS - SLATE) "WR" PROFILE ROOF SHEETS, ON 76mm TIMBER PURLINS ON 252mm TIMBER RAFTERS - TO ENGINEERS DETAILS & SPECIFICATIONS (TIMBER TO BE FULLY TREATED HIGH GRADE SA-PINE) & PAINTED TIMBER EXTERNAL - 1x COAT DULUX WOOD PRIMER, 1x COAT DULUX TRATE UNIVERSAL UNIDIR, 1x COAT DULUX TRATE GLOSS 100 ENAMEL, TIMBER TO BE FULLY PAINTED ON AREAS WHERE SURFACE FIXINGS ARE PRIOR TO INSTALLING
2. 170mm THICK CONCRETE ROOF, PLASTED AND PAINTED - 1x COAT DULUX TRATE PLASTER PRIMER, 2x COATS DULUX PEARLGLO.
3. ALL ROOFS TO HAVE "SIALISATION 40% REFLECTIVE FOIL UNDER PURLIN UNDERLAY THROUGHOUT, ALL TO HAVE 150mm HEAD LAPS
4. NEW ROOF TO HAVE 80mmØ PVC RAIN WATER DOWNPIPE, FITTED TO WALL WITH STANDARD PVC UNIDIR BRACKET
5. NEW ROOF TO HAVE STANDARD OGEE SEAMLESS ALU. GUTTER, TO MATCH ROOF SHEET.
6. NEW ROOF TO HAVE 222x22mm FASCIA BOARD FIXED TO RAFTERS, TO BE PAINTED SAME AS RAFTERS

**CEILINGS:**

- C1. CEILINGS TO BE PELICAN JUMB SUSPENDED GRID, SCREW-UP SKIMMED JOINT 9mm THICK GYPSUM BOARD, IN ACCORDANCE TO 'SABISA', WITH TIMBER CORNICE TO MATCH EXISTING CORNICE IN PROFILE EXACTLY.
- C2. ALL CEILING ARE TO BE 25mm L X 125mm MDF BOARDS ON SAME GRID SYSTEM AS WALLS, TO BE PAINTED SAME AS CEILING, WITH 25x25mm L" CORNICE ON WALLS
- C3. ALL PENETRATIONS THROUGH EXISTING SUSPENDED MESH AND PLASTER CEILING, TO BE KEPT TO A MINIMUM AND DONE WITH EXTREME CAUTION, ALL TO HAVE REINFORCED SUB-FRAME INSTALLED PRIOR TO CUTTING, PERIMETER OF CUT TO HAVE NEW SURROUND EDGE TRIM DONE USING 15mm THICK, PAINTED TO MATCH CEILING.
- C4. REFUGE ROOM TO HAVE PLASTERED SOFFIT, 15mm THICK, PAINTED TO MATCH CEILING.
- C5. CEILING PAINT - 1x COAT DULUX PLASTER/ TIMBER PRIMER, 2x COATS DULUX TRADE 65 MATT.

**PLUMBING:**

- P1. ALL PLUMBING TO BE DONE BY REGISTERED PLUMBER, PLUMBING SIGN-OFF TO BE ISSUED AT END OF CONTRACT
- P2. ALL PLUMBING TO COMPLY WITH SANS 10400-P & 10400-XA & SANS 10252-1:2004, SANS 1307, SANS 10106, SANS 10254 & SANS 10252-1.

**FLOORING:**

- FL1. CONCRETE FLOOR WITH HARDENED SCREED AND ANTI-DUSTING AGENT, TO HAVE SMOOTH TROWEL FINISH.
- FL2. CONCRETE RAMP WITH HARDENED SCREED AND ANTI-DUSTING AGENT, TO HAVE NON-SLIP FLOAT FINISH.
- FL3. REFUGE FLOOR TO BE 30mm GRANO ANTI DUSTING SCREED ON EXISTING CONCRETE FLOOR.
- FL4. ALL SOIL TO BE TREATED WITH APPROVED TERMITE TREATMENT, PRIOR TO FOUNDATIONS BEING CAST AND PAVING BEING LAID, WITH A 5 YEAR GUARANTEE ISSUED.

### WINDOWS & DOORS:

- W1. ALL EXISTING WINDOWS AND DOORS TO BE FULLY PROTECTED AT ALL TIMES, ANY DAMAGE TO THESE WILL BE RECTIFIED AT THE CONTRACTORS COST
- W2. PAINTED TIMBER INTERNAL - 1x COAT DULUX WOOD PRIMER, 1x COAT DULUX TRADE UNIVERSAL UNDERCOAT, 1x DULUX TRADE EGGSHELL ENAMEL
- W3. PAINTED TIMBER EXTERNAL - 1x COAT DULUX WOOD PRIMER, 1x COAT DULUX TRADE UNIVERSAL UNDERCOAT, 1x DULUX TRADE GLOSS 100 ENAMEL
- W4. NEW ALUMINIUM GABLE GRILLES TO BE INSTALLED (AS PER NE ELEVATION) ALL TO THE MECHANICAL ENGINEERS DRAWINGS & SPECIFICATIONS.

**MECHANICAL & ELECTRICAL:-**  
M1. ALL MECHANICAL EXTRACTION AND VENTILATION TO BE DONE IN ACCORDANCE WITH THE MECHANICAL ENGINEERS DESIGN AND DETAILS.  
E1. ALL LIGHTING AND ELECTRICAL RETICULATION TO BE DONE IN ACCORDANCE TO ELECTRICAL ENGINEERS DESIGN AND DETAILS.

Occupancy Classification : C2

Owner: \_\_\_\_\_  
Name: uMSUNDUZI MUSEUM  
Sign: \_\_\_\_\_ Date: \_\_\_\_\_

**Architect:** \_\_\_\_\_

**Name:** \_\_\_\_\_ **JA Meintjes**

**Sign:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Professional registration No.:** \_\_\_\_\_ **6428**

**BARTSCH**

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EAST LONDON: TEL(043) 727 0765, BLOEMFONTEIN: TEL(051) 300 5477  
CAPE TOWN: TEL(021) 252 225, PRETORIA: TEL(012) 346 0526  
WINDHOEK: TEL(0926461) 237 403, PMB: TEL(033) 347 1325

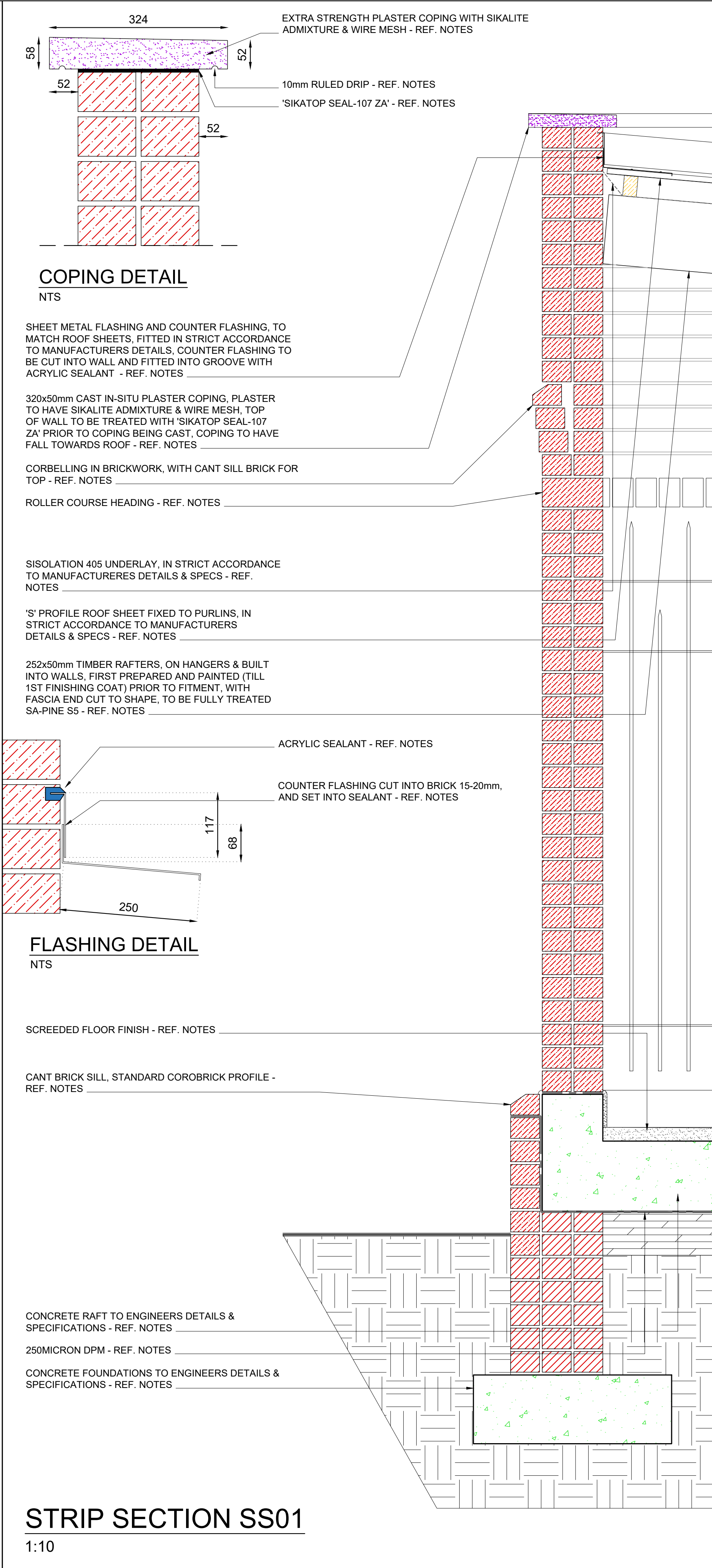
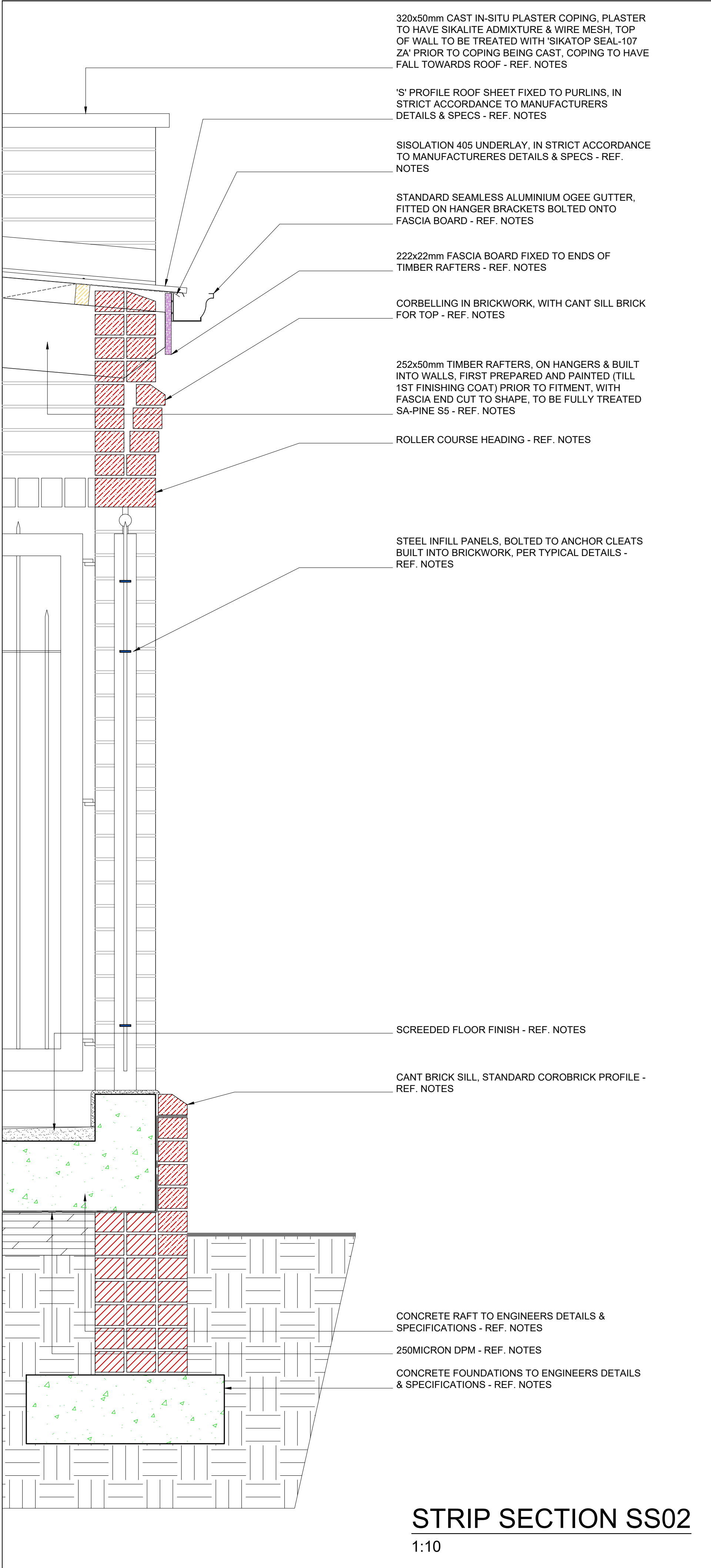
Project: PROPOSED UPGRADES AND INSTALLATION OF ELECTRICAL & MECHANICAL WORKS: MAIN BUILDING (BLOCK M) - uMSUNDUZI MUSEUM, ERF 2535, 351 LANGALIBALELE STREET, PIETERMARITZBURG, KZN, 3201

Drawing Description:

SECTIONS - S01: EXISTING BLOCK M, WITH  
NEW PLATFORM LIFT & REFUGE AREA

<u>Drawn:</u> REC P	<u>Date:</u> AUG 2022	<u>Stage:</u>
<u>Scale/s:</u> 1:50 @ A1	<u>Checked:</u>	Const.
<u>Drawing number:</u>  5044 - 200		<u>Revision:</u>  00





## GENERAL NOTES

**STEEL:**  
ST1. ALL STEEL TO BE MILD STEEL, PLASCON EPOXY PAINTED WITH 4 COAT SYSTEM (PRIMER, UNIVERSAL UNDERCOAT, 2x FINISH COATS)  
ST2. ALL STEEL TO BE FULL SANDBLASTED CLEAN FREE OF CONTAMINATES PRIOR TO PAINT APPLICATION  
ST3. ALL WELDS TO BE NEAT CONTINUOUS FILLET WELDS, CONSISTENT IN THICKNESS AND UNIFORMITY  
ST4. STEEL SHOP DRAWINGS TO BE ISSUED TO ARCHITECT FOR APPROVAL, PRIOR TO ANY FABRICATION OR INSTALLATION

**MISCELLANEOUS:**  
M1. ANY DAMAGE TO SURROUNDING FINISHES, FITTINGS, SERVICES, EQUIPMENT ETC. TO BE REPAIRED AND/ OR REPLACED BY CONTRACTOR.  
M2. NO ORIGINAL CIRCA 1905-1965 BUILDING FITTINGS TO REMOVED, IF REMOVED THEN THEY MUST BE DONE WITH EXTREME SENSITIVITY/ CARE & STORED IN A SAFE LOCATION TO BE REINSTATED/ INSTALLED ONCE WORK IS COMPLETE.  
M3. STEEL PAINT FINISH, 4 COAT SYSTEM DULUX EPOXY - (1xPRIMER & 1x UNDERCOAT & 2x FINISH COATS)  
M4. REFUGE DOOR - 2HR FIRE RATED CLASS B PYROPANEL DOORSET (950x2030x48), WITH VIEWING PANEL, IN STRICT ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS AND IN COMPLIANCE TO 'SABS1253:2033' AND WITH ALL RELEVANT 'SABS' MARKS FOR 120min, WITH 3.6mm TREATED COMMERCIAL PLY, INCLUDING INTUMESCENT STRIP TO TOP OF DOOR, HARDWARE EDGES, SPECIFIED IRONMONGERY AND HINGED ONE SIDE TO SUITABLE 1.6mm GAUGE MILD STEEL GALV & PRIMED FRAME FOR 230 BRICK WALL  
M5. ALL COPING TO BE IN-SITU PLASTER COPING, MUST BE A EXTRA STRENGTH PLASTER MIX, WITH SIKALITE ADD MIXTURE  
M6. ALL COPING TO HAVE SIKATOP SEAL-107 ZA APPLIED TO TOP OF WALLS PRIOR TO BEING CAST  
M7. ALL DRAWINGS TO BE READ IN CONJUNCTION WITH EACH OTHER AND TO BE READ IN CONJUNCTION WITH THE SPECIFICATION & METHOD DOCUMENT.

## GENERAL NOTES

**SITE:**  
S1. SET OUT TO BE DONE BY LAND SURVEYOR  
S2. ALL LAYER WORKS AND SITE WORK TO BE IN ACCORDANCE TO ENGINEERS DETAILS AND SPECIFICATIONS, ENGINEERS DRAWINGS AND ARCHITECTS DRAWINGS TO BE READ IN CONJUNCTION WITH EACH OTHER AT ALL TIMES  
S3. ALL STORM WATER TO ENGINEERS DETAILS AND SPECIFICATIONS  
S4. ALL SITE HEALTH & SAFETY TO BE COMPLIED TO IN TERMS OF THE SANS-10400 NATIONAL BUILDING REGULATIONS AND AGREED BUILDING CONTRACT  
S5. SOLID HOARDING TO BE IN PLACE AT SECTIONS TO BE WORKED ON PRIOR TO ANY WORK COMMENCING ON SITE

**FOUNDATIONS:**  
F1. ALL FOUNDATIONS, SURFACE BEDS, SLABS, RAFTS, RETAINING WALLS ETC TO BE IN ACCORDANCE TO ENGINEERS DETAILS AND SPECIFICATIONS. ALL TO BE ON WELL COMPACTED LAYER WORKS & 250 MICRON DPMs & TO HAVE SOIL POISON TREATMENT WITH 5 YEAR GUARANTEE  
F2. ALL FOUNDATIONS NOT DESIGNED BY PROFESSIONAL ENGINEER TO BE IN ACCORDANCE WITH THE SANS-10400 NATIONAL BUILDING REGULATIONS

**WALLS:**  
W1. WALLS TO BE 230 & 115 COROBRICK FBX CLAY BRICK WALLS (EXTERNAL) & 230 CLAY BRICK WITH PLASTER WALLS (INTERNAL)  
W2. EXTERNAL WALLS TO BE RED FACE BRICK, COROBRICK FIRELIGHT SATIN FBX, WHERE NEW WALL MEETS OLD ALL COURSES TO BE PROPERLY TOOTHED IN.  
W3. INTERNAL WALLS TO BE REPAIRED AND PLASTERED WHERE REPAIR IS BEING DONE (IF NEED BE), PLASTER MIX TO BE AS PER APPROVED MIXTURE RATIO, ALL READY TO RECEIVE A 3 COAT PAINT SYSTEM.  
W4. PLASTER WALL & WALL COPING PAINT - 1x COAT DULUX TRADE PLASTER PRIMER, 2x COATS DULUX PEARLGLO.

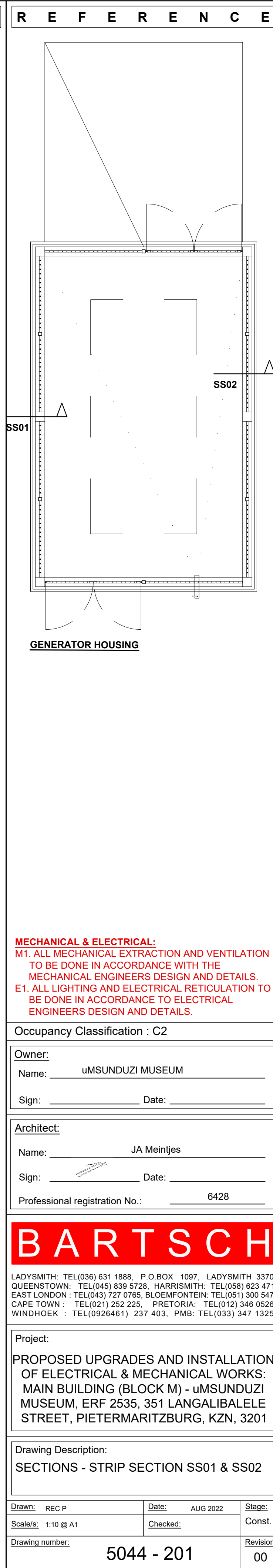
**ROOF:**  
R1. GRS 0.53mm ALU-ZINC COATED (COLORPLUS - SLATE) 'IBR' PROFILE ROOF SHEETS, ON 76mm TIMBER PURLINS ON 252mm TIMBER RAFTERS - TO ENGINEERS DETAILS & SPECIFICATIONS (TIMBER TO BE FULLY TREATED HIGH GRADE SA-PINE) & PAINTED TIMBER EXTERNAL - 1x COAT DULUX WOOD PRIMER, 1x COAT DULUX TRADE UNIVERSAL UNDERCOAT, 1x DULUX TRADE GLOSS 100 ENAMEL, TIMBER TO BE FULLY PAINTED ON AREAS WHERE SUPPORT FIXINGS ARE PRIOR TO INSTALLING  
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R4. NEW ROOF TO HAVE 80mmØ PVC RAIN WATER DOWNPIPE, FITTED TO WALL WITH STANDARD PVC MOUNTING BRACKETS  
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C1. CEILINGS TO BE PELICAN JUMBO SUSPENDED GRID, SCREW-UP SKIMMED JOINT 9mm THICK GYPSUM BOARD, IN ACCORDANCE TO 'SABISA', WITH TIMBER CORNICE TO MATCH EXISTING CORNICE IN PROFILE EXACTLY.  
C2. ALL BULKHEADS TO BE 22mm MDF BOARDS ON SAME GRID SYSTEM AS CEILINGS, TO BE PAINTED SAME AS CEILING, WITH 25x25mm 'L' CORNICE ON WALLS  
C3. ALL PENETRATIONS THROUGH EXISTING SUSPENDED MESH AND PLASTER CEILING, TO BE KEPT TO A MINIMUM AND DONE WITH EXTREME CAUTION, ALL TO HAVE REINFORCED SUB-FRAME INSTALLED PRIOR TO CUTTING. PERIMETER OF CUT TO HAVE NEW SURROUND EDGE TRIM DONE USING 45x8mm TIMBER STRIPS (PAINTED FINISH)  
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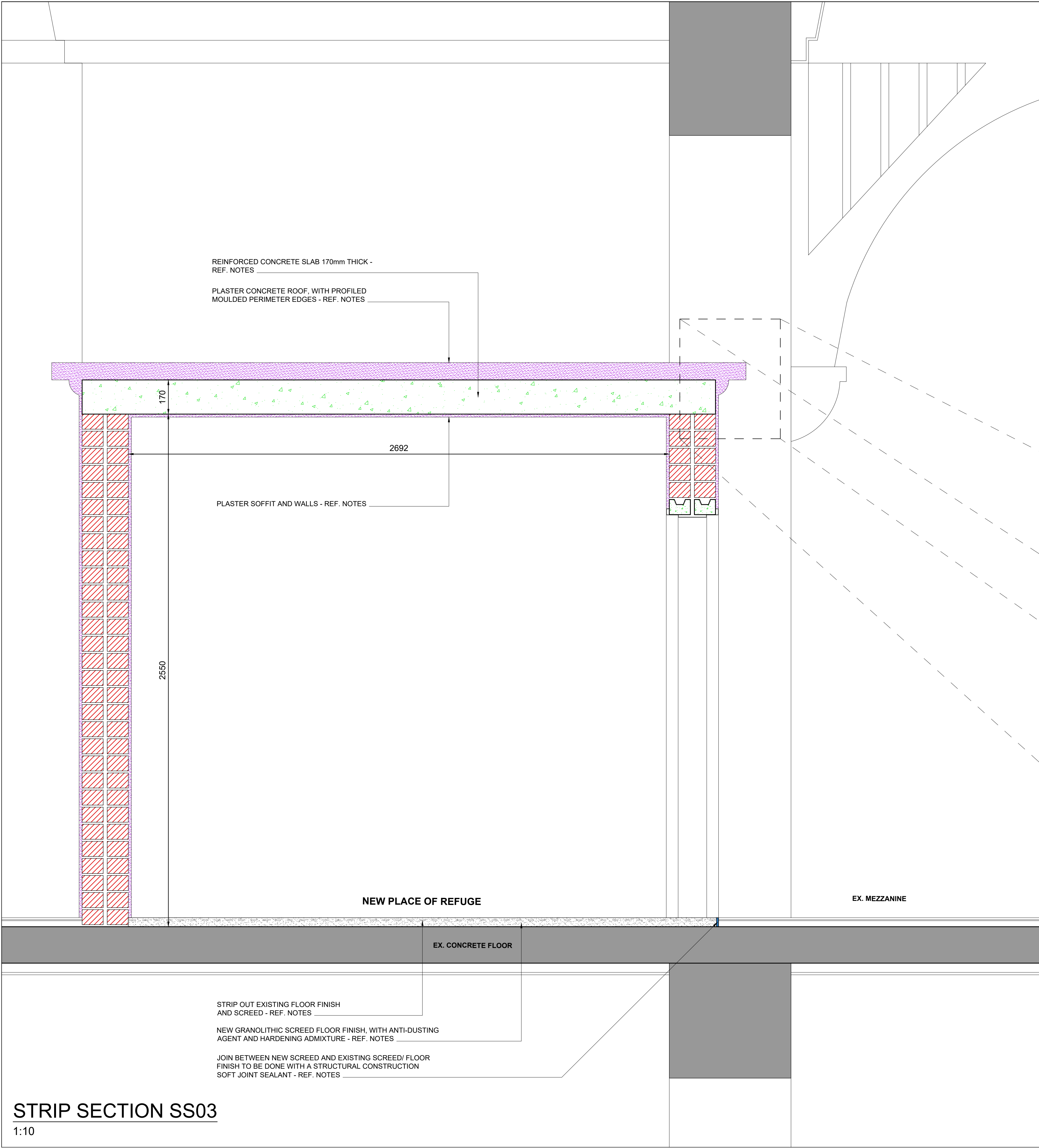
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S3. ALL STORM WATER TO ENGINEERS DETAILS AND SPECIFICATIONS  
S4. ALL SITE HEALTH & SAFETY TO BE COMPLIED TO IN TERMS OF THE SANS-10400 NATIONAL BUILDING REGULATIONS AND AGREED BUILDING CONTRACT  
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F2. ALL FOUNDATIONS NOT DESIGNED BY PROFESSIONAL ENGINEER TO BE IN ACCORDANCE WITH THE SANS-10400 NATIONAL BUILDING REGULATIONS

**WALLS:**  
W1. WALLS TO BE 230 & 115 COROBRIK FBX CLAY BRICK WALLS (EXTERNAL) & 230 CLAY BRICK WITH PLASTER WALLS (INTERNAL)  
W2. EXTERNAL WALLS TO BE RED FACE BRICK, COROBRIK FIRELIGHT SATIN FBX, WHERE NEW WALL MEETS OLD ALL COURSES TO BE PROPERLY TOOTHED IN.  
W3. INTERNAL WALLS TO BE REPAIRED AND PLASTERED WHERE REPAIR IS BEING DONE (IF NEED BE), PLASTER MIX TO BE AS PER APPROVED MIXTURE RATIO, ALL READY TO RECEIVE A 3 COAT PAINT SYSTEM.  
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R3. ALL ROOFS TO HAVE 'SISALATION 405' REFLECTIVE FOIL UNDER PURLIN UNDERLAY THROUGHOUT, ALL TO HAVE 150mm HEAD LAPS  
R4. NEW ROOF TO HAVE 80mmØ PVC RAIN WATER DOWNPIPE, FITTED TO WALL WITH STANDARD PVC MOUNTING BRACKETS  
R5. NEW ROOF TO HAVE STANDARD OGEE SEAMLESS ALU. GUTTER, TO MATCH ROOF SHEET.  
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**REFERENCE**

**Mechanical & Electrical:**  
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Occupancy Classification : C2

**Owner:**  
Name: uMSUNDUZI MUSEUM  
Sign: \_\_\_\_\_ Date: \_\_\_\_\_

**Architect:**  
Name: JA Meintjes  
Sign: \_\_\_\_\_ Date: \_\_\_\_\_  
Professional registration No.: 6428

**BARTSCH**

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EAST LONDON: TEL(043) 727 0765, BLOEMFONTEIN: TEL(051) 300 547  
CAPE TOWN: TEL(021) 252 225, PRETORIA: TEL(012) 346 0526  
WINDHOEK: TEL(0926461) 237 403, FMB: TEL(033) 347 1325

Project:  
PROPOSED UPGRADES AND INSTALLATION OF ELECTRICAL & MECHANICAL WORKS: MAIN BUILDING (BLOCK M) - uMSUNDUZI MUSEUM, ERF 2535, 351 LANGALIBALELE STREET, PIETERMARITZBURG, KZN, 3201

Drawing Description:  
SECTIONS - STRIP SECTION SS03 (REFUGE ROOM)

Drawn: REC P Date: AUG 2022 Stage: Const.  
Scale/s: 1:10 @ A1 Checked: Revision: 00  
Drawing number: 5044 - 202





**NO CHANGE TO EXISTING ELEVATION**

#### GENERAL NOTES

**STEEL:**  
ST1. ALL STEEL TO BE MILD STEEL, PLASCON EPOXY PAINTED WITH 4 COAT SYSTEM (PRIMER, UNIVERSAL UNDERCOAT, 2x FINISH COATS)  
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M2. NO ORIGINAL CIRCA 1905-1965 BUILDING FITTINGS TO REMOVED, IF REMOVED THEN THEY MUST BE DONE WITH EXTREME SENSITIVITY/ CARE & STORED IN A SAFE LOCATION TO BE REINSTATED/ INSTALLED ONCE WORK IS COMPLETE.

M3. STEEL PAINT FINISH, 4 COAT SYSTEM DULUX EPOXY 1xPRIMER & 1x UNDERCOAT & 2x FINISH COATS

M4. REFUGE DOOR - 2HR FIRE RATED CLASS B PYROPLAN DOORSET (950x2030x48), WITH VIEWING PANEL, IN STRICT ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS AND IN COMPLIANCE TO 'SABS'1253:2033' AND WITH ALL RELEVANT 'SABS' MARKS FOR 120min, WITH 3.6mm TREATED COMMERCIAL PLY, INCLUDING INTUMESCENT STRIP TO TOP OF DOOR, HARDWARE EDGES, SPECIFIED IRONMONGERY AND HINGED ONE SIDE TO SUITABLE 1.6mm GAUGE MILD STEEL GALV & PRIMED FRAME FOR 230 BRICK WALL

M5. ALL COPING TO BE IN-SITU PLASTER COPING, NOT TO BE EXTRA STRENGTH PLASTER MIX, WITH SIKALITE ADD MIXTURE

M6. ALL COPING TO HAVE SIKATOP SEAL-107 ZA APPLIED TO TOP OF WALLS PRIOR TO BEING CAST

M7. ALL DRAWINGS TO BE READ IN CONJUNCTION WITH EACH OTHER AND TO BE READ IN CONJUNCTION WITH THE SPECIFICATION & METHOD DOCUMENT.

## GENERAL NOTES

**SITE:**

- S1. SET OUT TO BE DONE BY LAND SURVEYOR
- S2. ALL LAYER WORKS AND SITE WORK TO BE IN ACCORDANCE TO ENGINEERS DETAILS AND SPECIFICATIONS. ENGINEERS DRAWINGS AND ARCHITECTS DRAWINGS TO BE READ IN CONJUNCTION WITH EACH OTHER AT ALL TIMES
- S3. ALL STORM WATER TO ENGINEERS DETAILS AND SPECIFICATIONS
- S4. ALL SITE HEALTH & SAFETY TO BE COMPLIED TO IN TERMS OF THE SANS-10400 NATIONAL BUILDING REGULATIONS AND AGREED BUILDING CONTRACT
- S5. SOLID HOARDING TO BE IN PLACE AT SECTIONS TO BE WORKED ON PRIOR TO ANY WORK COMMENCING ON SITE

**FOUNDATIONS:**

F1. ALL FOUNDATIONS, SURFACE BEDS, SLABS, RAFTS, RETAINING WALLS ETC TO BE IN ACCORDANCE TO ENGINEERS DETAILS AND SPECIFICATIONS. ALL TO BE ON WELL COMPACTED LAYER WORKS & 250 MICRON DPMs & TO HAVE SOIL POISON TREATMENT WITH 5 YEAR GUARANTEE

F2. ALL FOUNDATIONS NOT DESIGNED BY PROFESSIONAL ENGINEER TO BE IN ACCORDANCE WITH THE SANS-10400 NATIONAL BUILDING REGULATIONS

**WALLS:**

W1. WALLS TO BE 230 & 115 COROBRIK FBX CLAY BRICK WALLS (EXTERNAL) & 230 CLAY BRICK WITH PLASTER WALLS (INTERNAL)

W2. EXTERNAL WALLS TO BE RED FACE BRICK, COROBRIK FIRELIGHT SATIN FINISH, WHERE NEW WALL MEETS OLD ALL COURSES TO BE PROPERLY TOOTHED IN.

W3. INTERNAL WALLS TO BE REPAIRED AND PLASTERED WHERE REPAIR IS BEING DONE (IF NEEDED), PLASTER MIX TO BE AS PER APPROVED MIXTURE RATIO, ALL READY TO RECEIVE A 3 COAT PAINT.

W4. PLASTER WALL & WALL COPING PAINT - 1x COAT DULUX TRADE PLASTER PRIMER, 2X COATS DULUX PEARL.GLO.

**ROOF:**  
R1. GRS 0.53mm ALU-ZINC COATED (COLORPLUS - SLATE) 'IBR' PROFILE ROOF SHEETS, ON 76mm TIMBER PURLINS ON 252mm TIMBER RAFTERS - TO ENGINEERS DETAILS & SPECIFICATIONS (TIMBER TO BE TREATED WITH HIGH GRADE SCA-PRES & PAINTED - TIMBER EXTERIOR - 1x COAT DULUX WOOD PRIMER, 1x COAT DULUX TRADE UNIVERSAL UNDERCOAT, 1x DULUX TRADE GLOSS 100 ENAMEL, TIMBER TO BE FULLY PAINTED ON AREAS WHERE SUPPORT FIXINGS ARE PRIOR TO INSTALLING  
R2. 170mm THICK CONCRETE ROOF, PLASTED AND PAINTED - 1x COAT DULUX TRADE PLASTER  
R3. ALL ROOFS TO HAVE 'SILICALATION 405' REFLECTIVE FOIL UNDER PURLIN UNDERLAY THROUGHOUT, ALL TO HAVE 150mm HEAD LAPS  
R4. NEW ROOF TO HAVE 80mmØ PVC RAIN WATER DOWNPIPE, FITTED TO WALL WITH STANDARD PVC MOUNTING BRACKETS  
R5. NEW ROOF TO HAVE STANDARD OGEE SEAMLESS ALU. GUTTER, TO MATCH ROOF COLOR  
R6. NEW ROOF TO HAVE 22x22mm FASCIA BOARD FIXED TO RAFTERS, TO BE PAINTED SAME AS RAFTERS

**CEILINGS:**

- C1. CEILINGS TO BE PELICAN JUMBO SUSPENDED GRID, SCREW-UP SKIMMED JOINT 9mm THICK GYPSUM BOARD, IN ACCORDANCE TO 'SABISA', WITH TIMBER CORNICE TO MATCH EXISTING CORNICE IN PROFILE EXACTLY.
- C2. ALL BULKHEADS TO BE 22mm MDF BOARDS ON SAME GRID SYSTEM AS CEILINGS, TO BE PAINTED SAME AS CEILING, WITH 25x25mm 'L' CORNICE ON WALLS
- C3. ALL PENETRATIONS THROUGH EXISTING SUSPENDED MESH AND PLASTER CEILING, TO BE KEPT TO A MINIMUM AND DONE WITH EXTREME CAUTION, NOT TO HAVE REINFORCED SUB-FRAME INSTALLATION, NOT TO HAVE REINFORCED SUB-FRAME TO HAVE NEW SURROUND EDGE TRIM DONE USING 45x8mm TIMBER STRIPS (PAINTED FINISH)
- C4. REFUGE ROOM TO HAVE PLASTERED SOFFIT, 15mm THICK, PAINTED TO MATCH CEILING.
- C5. CEILING PAINT - 1x COAT DULUX PLASTER/ TIMBER PRIMER, 2x COATS DULUX TRADE 65 MATT.

**PLUMBING:**  
P1. ALL PLUMBING TO BE DONE BY REGISTERED  
PLUMBER, PLUMBING SIGN-OFF TO BE ISSUED AT  
END OF CONTRACT  
P2. ALL PLUMBING TO COMPLY WITH SANS 10400-P &  
10400-XA & SANS 10252-1:2004, SANS 1307, SANS  
10106, SANS 10254 & SANS 10252-1.

**FLOORING:**  
 FL1. CONCRETE FLOOR WITH HARDENED SCREED AND ANTI-DUSTING AGENT, TO HAVE SMOOTH TROWEL FINISH.  
 FL2. CONCRETE RAMP WITH HARDENED SCREED AND ANTI-DUSTING AGENT, TO HAVE NON-SLIP FLOAT FINISH.  
 FL3. REFUGE FLOOR TO BE 30mm GRANO ANTI DUSTING SCREED ON EXISTING CONCRETE FLOOR.  
 FL4. ALL SOIL TO BE TREATED WITH APPROVED TERMITE TREATMENT, PRIOR TO FOUNDATIONS BEING CAST AND PAVING BEING LAID, WITH A 5 YEAR GUARANTEE ISSUED.

**WINDOWS & DOORS:**

W1. ALL EXISTING WINDOWS AND DOORS TO BE FULLY PROTECTED AT ALL TIMES. ANY DAMAGE TO THESE WILL BE RECTIFIED AT THE CONTRACTORS COST

W2. PAINTED TIMBER INTERNAL - 1x COAT DULUX WOOD PRIMER, 1x COAT DULUX TRADE UNIVERSAL UNDERCOAT, 1x DULUX TRADE EGGSHELL ENAMEL

W3. PAINTED TIMBER EXTERNAL - 1x COAT DULUX WOOD PRIMER, 1x COAT DULUX TRADE UNIVERSAL UNDERCOAT, 1x DULUX TRADE GLOSS 100 ENAMEL

W4. NEW ALUMINIUM GABLE GRILLES TO BE INSTALLED (AS PER NE ELEVATION) ALL TO THE MECHANICAL ENGINEERS DRAWINGS & SPECIFICATIONS.

# M U N I C I P A L   S T A M P S

**MECHANICAL & ELECTRICAL:**  
**M1. ALL MECHANICAL EXTRACTION AND VENTILATION**  
**TO BE DONE IN ACCORDANCE WITH THE**  
**MECHANICAL ENGINEERS DESIGN AND DETAILS.**  
**E1. ALL LIGHTING AND ELECTRICAL RETICULATION TO**  
**BE DONE IN ACCORDANCE TO ELECTRICAL**  
**ENGINEERS DESIGN AND DETAILS.**

Occupancy Classification : C2

<b>Owner:</b>	
Name:	uMSUNDUZI MUSEUM
Sign:	Date:

**Architect:** \_\_\_\_\_

Name: \_\_\_\_\_ JA Meintjes

Sign: \_\_\_\_\_ Date: \_\_\_\_\_

Professional registration No.: \_\_\_\_\_ 6428

**BARTSCH**

LADYSMITH: TEL(036) 631 1888, P.O.BOX 1097, LADYSMITH 3370  
 QUEENSTOWN: TEL(045) 839 5728, HARRISMITH: TEL(058) 623 471  
 EAST LONDON : TEL(043) 727 0765, BLOEMFONTEIN: TEL(051) 300 547  
 CAPE TOWN : TEL(021) 252 225, PRETORIA: TEL(012) 346 0526  
 WINDHOEK : TEL(0926461) 237 403, PMB: TEL(033) 347 1325

Project:

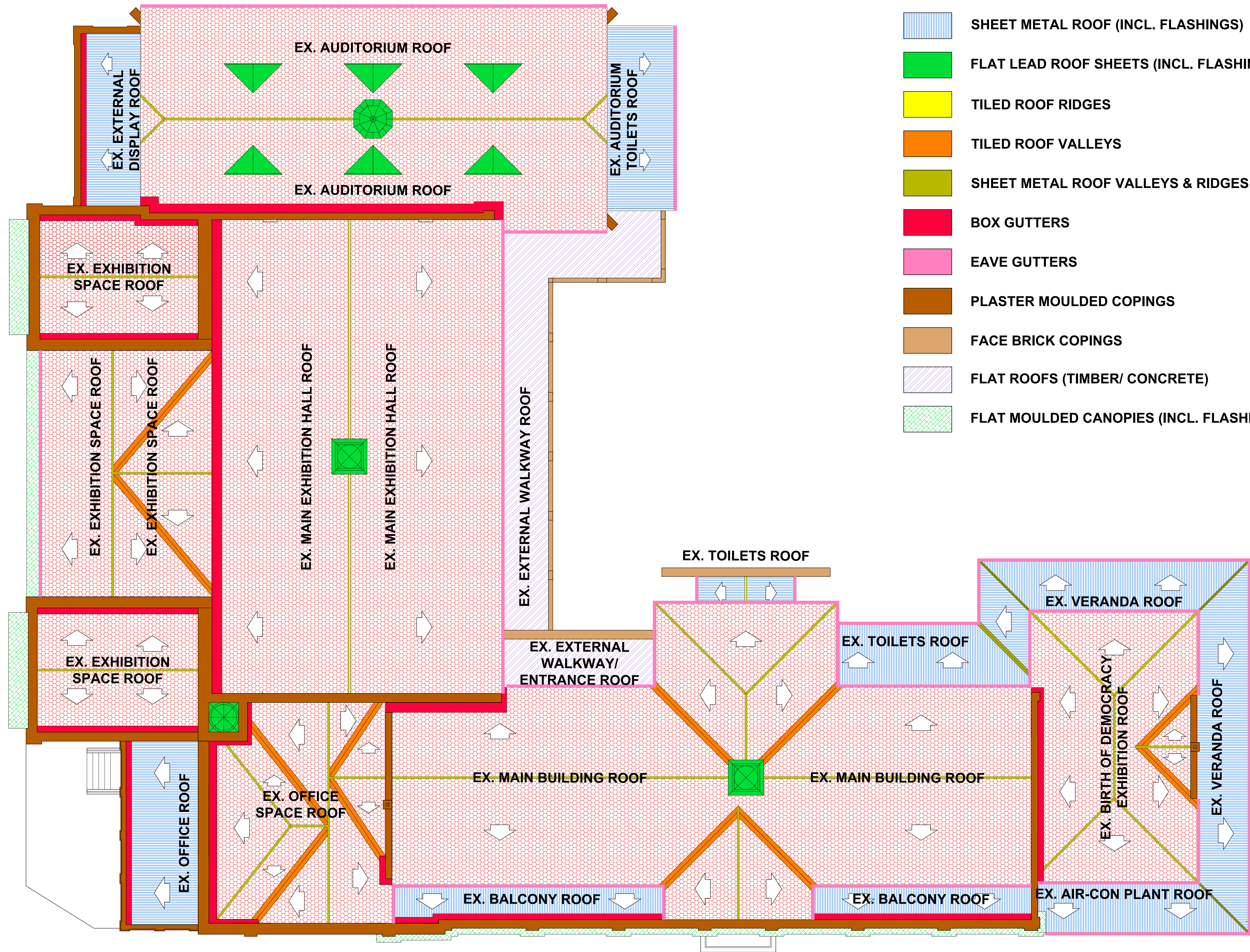
PROPOSED UPGRADES AND INSTALLATION  
OF ELECTRICAL & MECHANICAL WORKS:  
MAIN BUILDING (BLOCK M) - uMSUNDUZI  
MUSEUM, ERF 2535, 351 LANGALIBALELE  
STREET, PIETERMARITZBURG, KZN, 3201

Drawing Description:  
ELEVATIONS - EXISTING ELEVATIONS FOR  
BLOCK M

<u>Drawn:</u> REC P	<u>Date:</u> AUG 2022	<u>Stage:</u>
<u>Scale/s:</u> 1:200 @ A1	<u>Checked:</u>	Const.
<u>Drawing number:</u> <div style="text-align: center; font-size: 2em;">5044 - 300</div>		<u>Revision:</u> <div style="text-align: center; font-size: 2em;">00</div>



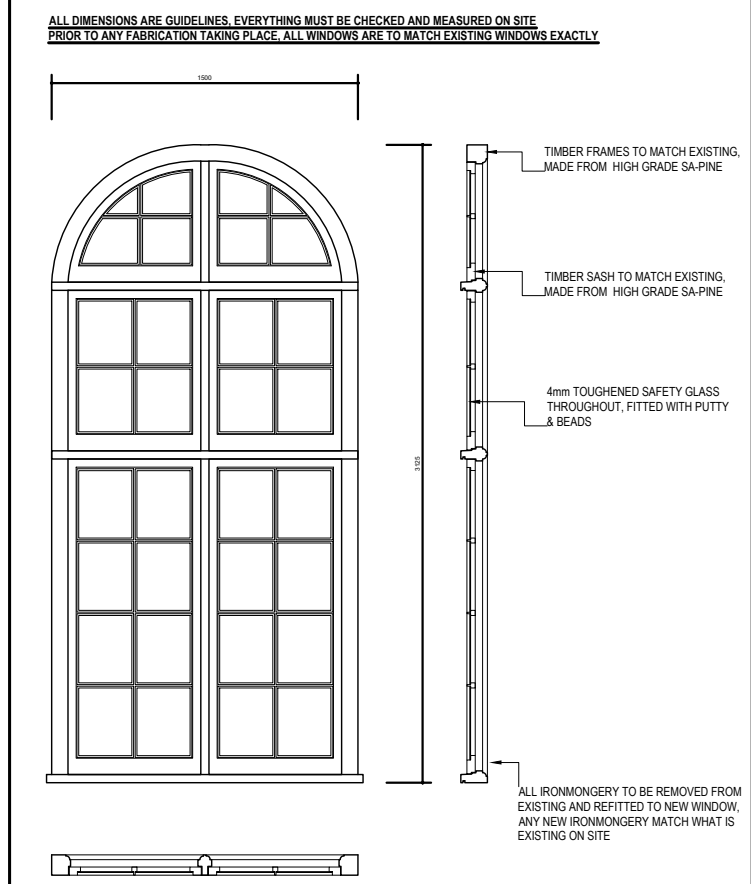
LONGMARKET STREET



BOSHOFF STREET

- BROSELEY TILED ROOF (INCL. FLASHINGS)
- SHEET METAL ROOF (INCL. FLASHINGS)
- FLAT LEAD ROOF SHEETS (INCL. FLASHINGS)
- TILED ROOF RIDGES
- TILED ROOF VALLEYS
- SHEET METAL ROOF VALLEYS & RIDGES
- BOX GUTTERS
- EAVE GUTTERS
- PLASTER MOULDED COPINGS
- FACE BRICK COPINGS
- FLAT ROOFS (TIMBER/ CONCRETE)
- FLAT MOULDED CANOPIES (INCL. FLASHINGS)

TYPICAL WINDOW



NEW WINDOW

- ALL TIMBER TO HIGH GRADE SA PINE
- ALL WORK TO BE CARRIED OUT BY APPROVED AMFA SPECIALIST SUB-CONTRACTOR
- FINISH ONE COAT WOOD PRIMER, ONE COAT UNDERCOAT & THREE COAT ENAMEL
- ROMANSHOOR: FINISH FROM EXISTING WINDOW AND FINISH ONE COAT NEW WINDOW

Occupancy Classification : C2

Owner:  
Name: uMSUNDUZI MUSEUM  
Sign: Date:

Architect:  
Name: JA Meintjes  
Sign: Date:  
Professional registration No.: 6428

**BARTSCH**

LADYSMITH: TEL(036) 631 1888, P.O.BOX 1097, LADYSMITH 3370  
QUEENSTOWN: TEL(045) 839 5728, HARRISMITH: TEL(058) 623 471  
EAST LONDON: TEL(043) 727 0765, BLOEMFONTEIN: TEL(051) 300 547  
CAPE TOWN: TEL(021) 252 225, PRETORIA: TEL(012) 346 0526  
WINDHOEK: TEL(0926481) 237 403, PMB: TEL(033) 347 1325

Project:  
PROPOSED UPGRADES AND INSTALLATION  
OF ELECTRICAL & MECHANICAL WORKS:  
MAIN BUILDING (BLOCK M) - uMSUNDUZI  
MUSEUM, ERF 2535, 351 LANGALIBALELE  
STREET, PIETERMARITZBURG, KZN, 3201

Drawing Description:  
PLAN - EXISTING MAIN MUSEUM ROOF LAYOUT,  
WITH AREAS OF WORK FOR REPAIRS

Drawn: REC P	Date: MAY 2023	Stage:
Scale/s: 1:100 @ A1	Checked:	Sub:
Drawing number:	5044 - 101a	Revision: 00








## **Refurbishment and Upgrading of uMsunduzi Museums Buildings**

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### **HVAC Drawings**



COLOUR LEGEND	
	AC SUPPLY AIR / LIQUID PIPING
	RETURN AIR / GAS PIPING
	EXTRACT AIR
	FRESH AIR
	CONDENSATE DRAINAGE

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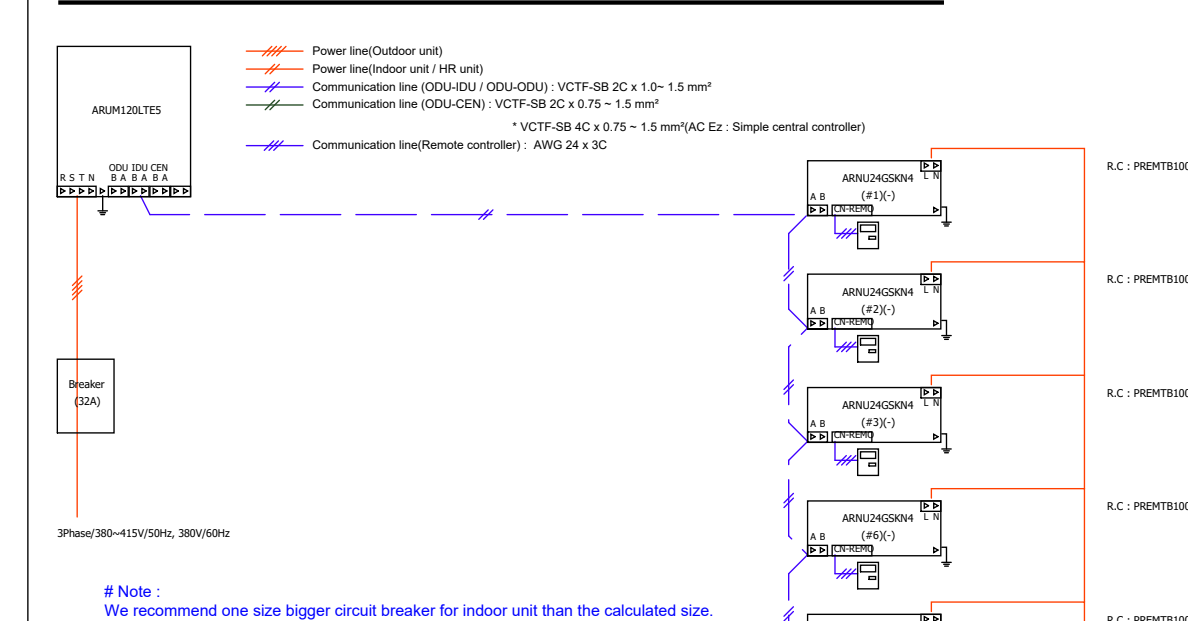
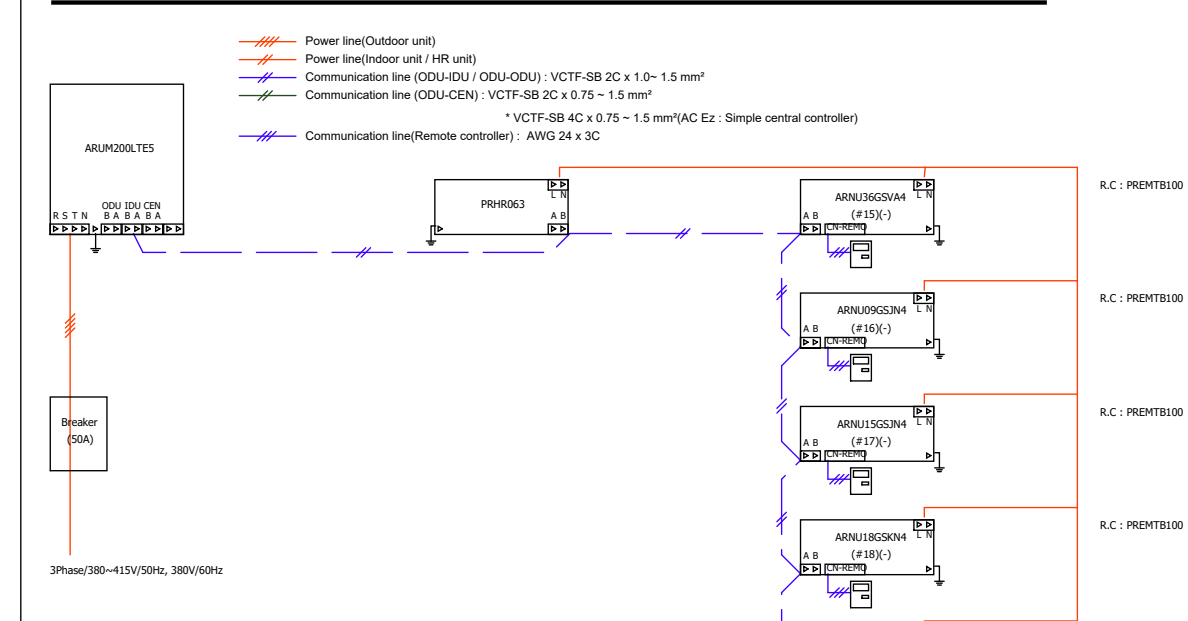
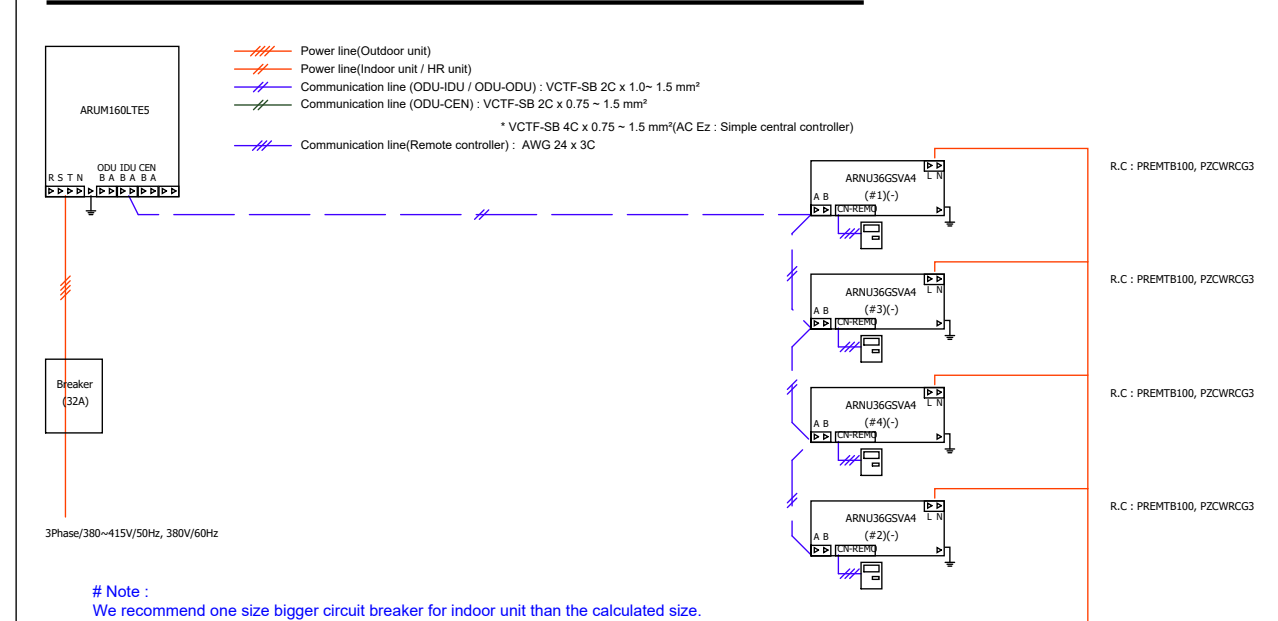
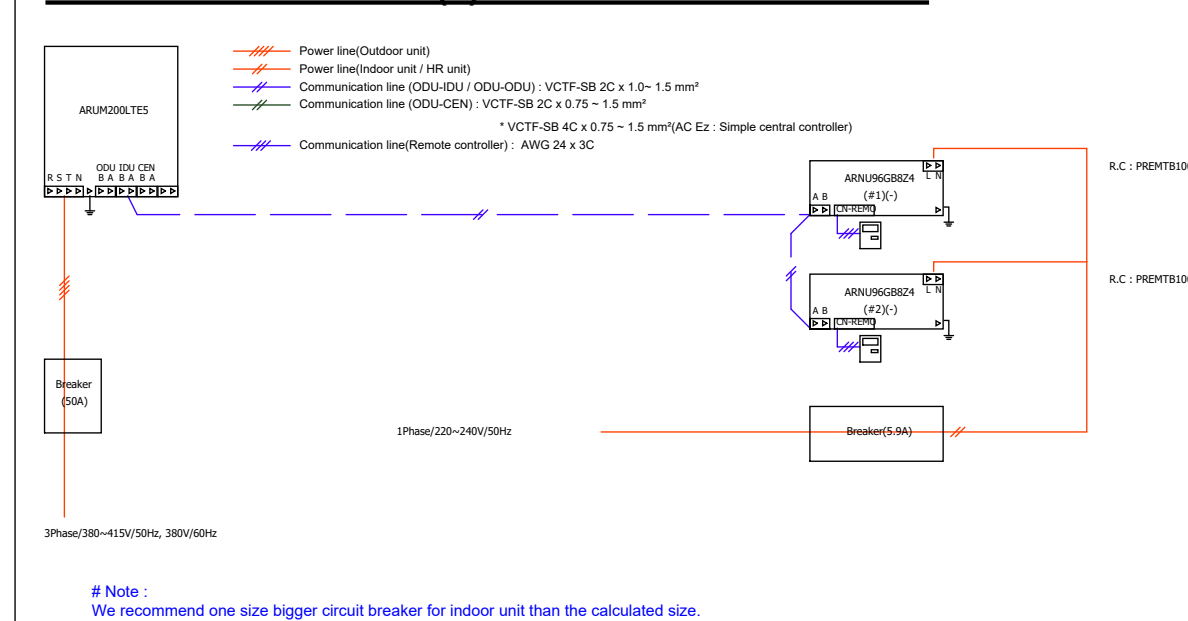
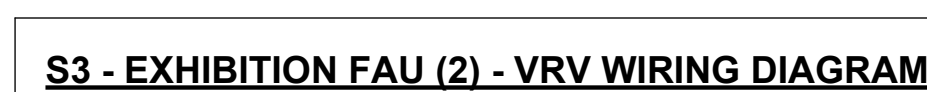
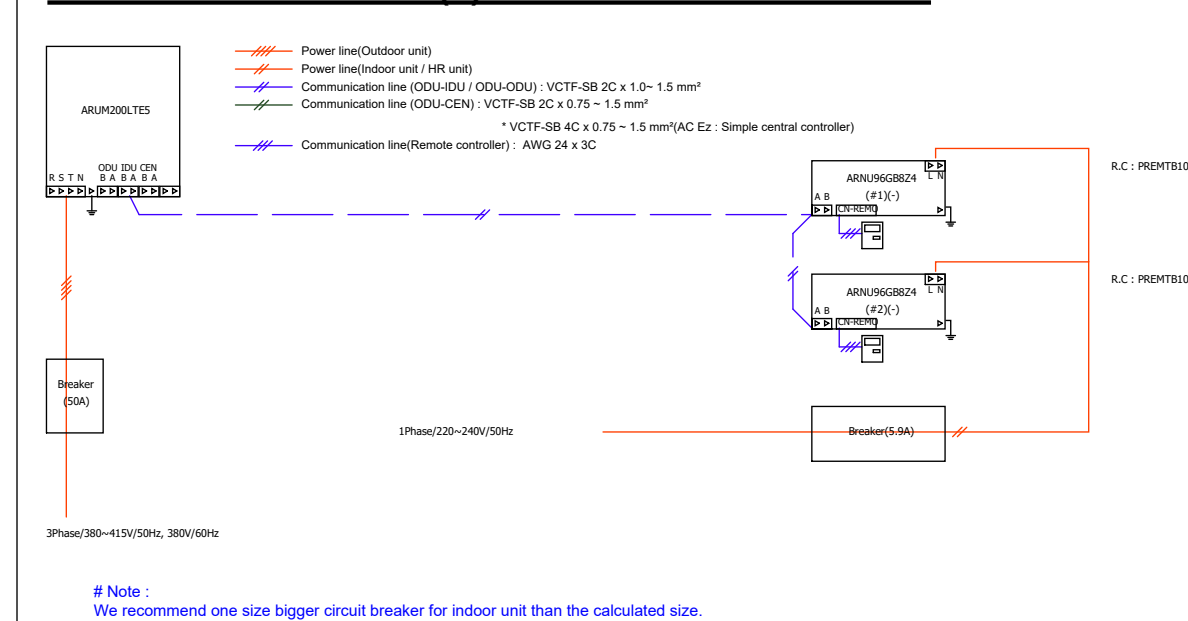
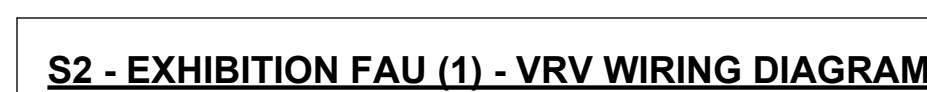
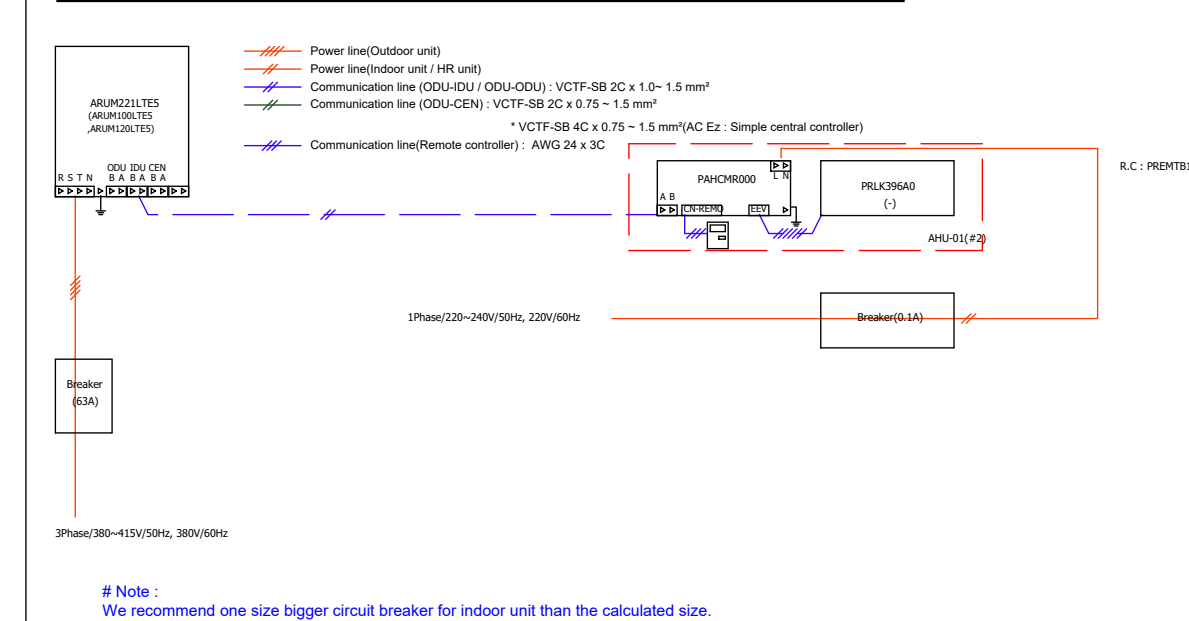
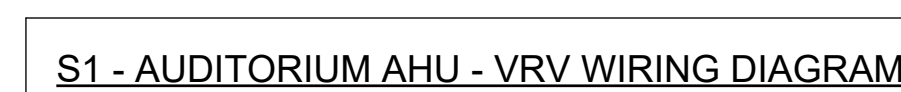
AC & FAN SCHEDULE (G)										
REF	NO.	DESCRIPTION	MODEL	COOLING CAPACITY	AIR FLOW	ESP	WEIGHT	RATED CURRENT	MOUNTING POSITION	
CDU-4	1	"LG MULTI VRS" VR* OUTDOOR UNIT - HEAT PUMP	ARJUM20L7E5	56 kW	-	-	330 kg	3Ph, 400V, 50Hz, 40A	ROOF - SUPPORT REQUIRED / BALCONY - PLINTH REQUIRED	
CDU-4	2	"LG MULTI VRS" VR* INDOOR UNIT - MID-WALL	ARJ007GSJN4	2.2 kW	-	-	10 kg	230V, 500V, 1.0A	1/WALL	
CDU-4	3	"LG MULTI VRS" VR* INDOOR UNIT - MID-WALL	ARJ007GSJN4	5.6 kW	-	-	15 kg	230V, 500V, 0.2A	1/WALL	
CDU-4	4	"LG MULTI VRS" VR* INDOOR UNIT - MID-WALL	ARJ008GSJN4	10.4 kW	-	-	20 kg	230V, 500V, 0.4A	1/WALL	
CDU-4	5	"LG MULTI VRS" VR* INDOOR UNIT - CEILING CASSETTE	ARJ007HSC4	2.2 kW	-	-	10 kg	230V, 500V, 1.0A	4/SOFFIT / TRUSS	
CDU-4	6	"LG MULTI VRS" VR* INDOOR UNIT - CEILING CASSETTE	ARJ008HSC4	2.8 kW	-	-	15 kg	230V, 500V, 0.2A	4/SOFFIT / TRUSS	
CDU-4	7	"LG MULTI VRS" VR* INDOOR UNIT - CEILING CASSETTE	ARJ015GTC4	4.5 kW	-	-	20 kg	230V, 500V, 0.2A	4/SOFFIT / TRUSS	
ARU-1	1	AIR HANDLING UNIT - VERTICAL	-	56.2 kW	3320 l/s	250 Pa	800 kg	230V, 500V, 100A	GROUND - PLINTH REQUIRED	
ARU-1	2	AIR HANDLING UNIT - HORIZONTAL	-	61.6 kW	3000 l/s	250 Pa	800 kg	230V, 500V, 100A	GROUND - PLINTH REQUIRED	
EEV-1	1	"LG MULTI VRS" VR* ELECTRONIC EXPANSION VALVE	PKJL9K640	96.3 kW	-	-	10 kg	-	ON UNIT	
EEV-2	1	"LG MULTI VRS" VR* ELECTRONIC EXPANSION VALVE	PKJL36640	112.5 kW	-	-	10 kg	-	ON UNIT	
SP-1	1	SYSTEM UNIT - MID-WALL	M38AH	9.8 kW	-	-	75kg (Out) + 20 kg (In)	230V, 500V, 17A	WALL / WALL	
SU-2	1	"SPURTY" SUPPLY AIR FAN - CIRCULAR BLINE FAN	Pro Select SP 150E2	-	90-145 l/s	200 Pa	65 kg	230V, 500V, 1A	4/SOFFIT / TRUSS	
EF-1	1	"XPRLAR" CEILING MOUNTED EXTRACTOR FAN	QX2	-	333 l/s	-	5 kg	230V, 500V, 0.2A	WALL	
EF-2	1	"XPRLAR" WINDOW MOUNTED EXTRACTOR FAN	QX2	-	145 l/s	-	5 kg	230V, 500V, 0.2A	WINDOW	
EF-3	1	"XPRLAR" WINDOW MOUNTED EXTRACTOR FAN	GW9	-	171 l/s	-	5 kg	230V, 500V, 0.2A	WINDOW	
EF-4	1	"XPRLAR" WINDOW MOUNTED EXTRACTOR FAN	GW12	-	208 l/s	-	5 kg	230V, 500V, 0.4A	WINDOW	








CLIENT INFORMATION	
CLIENT LOGO:	CLIENT NAME:
	Msunduzi Museum



DRAWING INFORMATION	
DRAWING TITLE: HVAC Layout - Ground Floor	
DRAWING SCALE: As indicated	SHEET SIZE: A0
DRAWING NUMBER: LSG-2204-HVAC-100	REVISION: T0





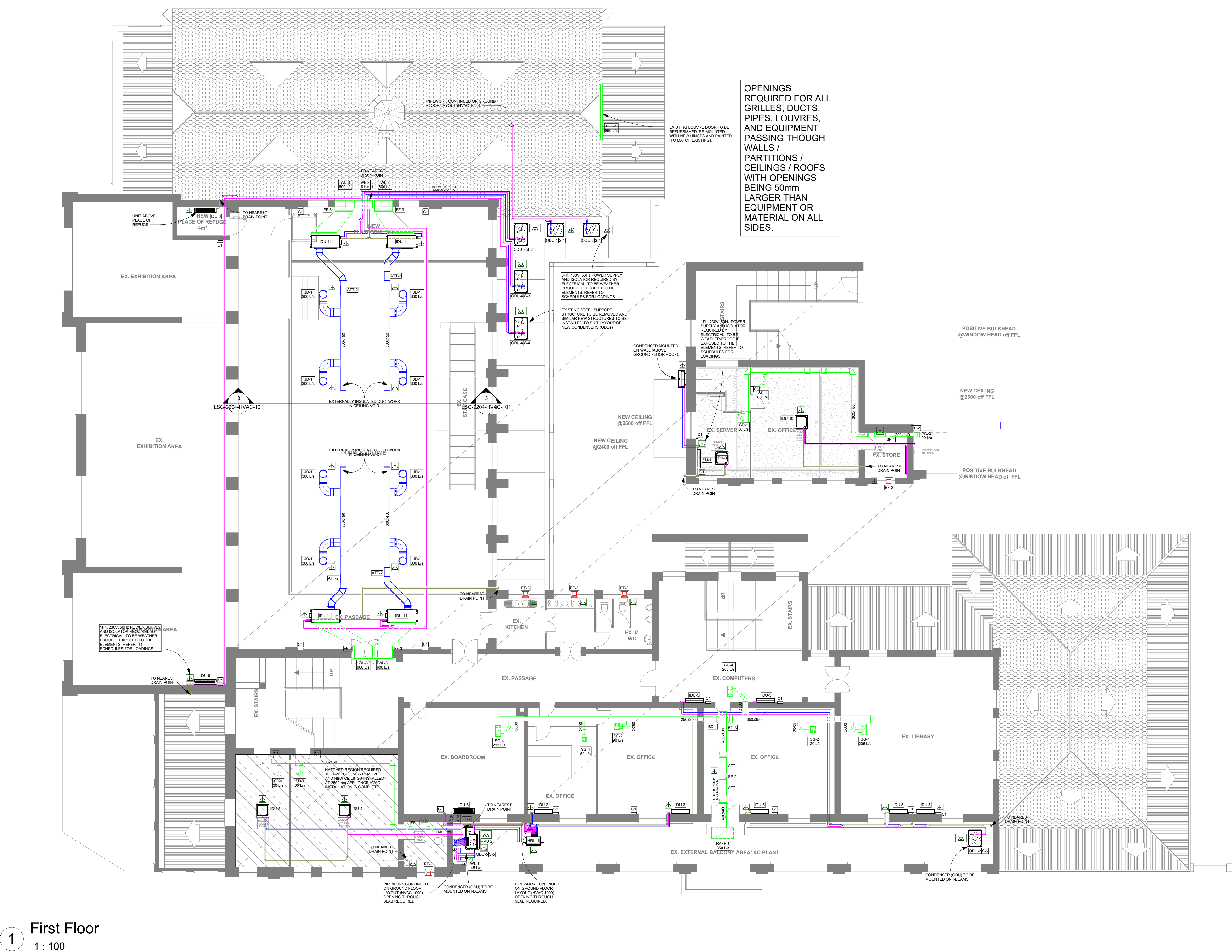
LIST OF REVISIONS			
NO.	DATE	DESCRIPTION	BY
I0	18/08/22	Issued for Information	SC
I1	26/08/22	Issued for Information / Approval	SC
I2	04/10/22	Issued for AMAFA Submission	SC
I3	05/10/22	Revised to Suit Architects Updated Layout	SC
T0	18/04/23	Issued for Tender	SC

COLOUR LEGEND	
	AC SUPPLY AIR / LIQUID PIPING
	RETURN AIR / GAS PIPING
	EXTRACT AIR
	FRESH AIR
	CONDENSATE DRAINAGE

ELECTRICAL LEGEND	
	1PH POWER SUPPLY AND ISOLATOR. TO BE WEATHER PROOF IF EXPOSED TO THE ELEMENTS. REQUIREMENTS AS PER EQUIPMENT SCHEDULES.
	3PH POWER SUPPLY AND ISOLATOR. TO BE WEATHER PROOF IF EXPOSED TO THE ELEMENTS. REQUIREMENTS AS PER EQUIPMENT SCHEDULES.

NOTES:

- [illegible]

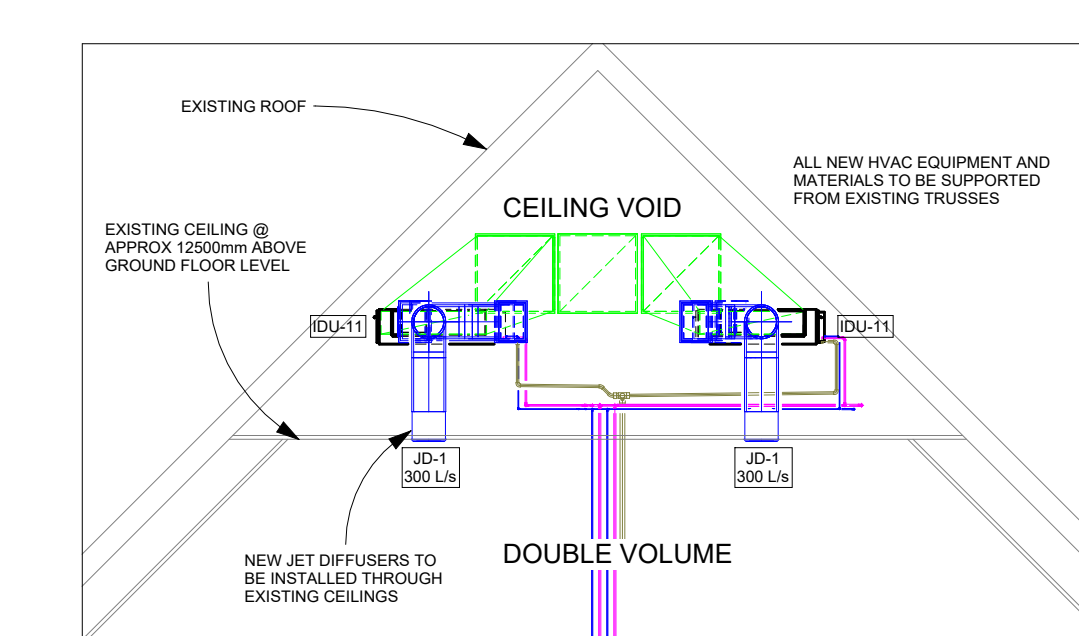


AC & FAN SCHEDULE (1)									
REF	NO.	DESCRIPTION	MODEL	COOLING CAPACITY	AIR FLOW	ESP	WEIGHT	RATED CURRENT	MOUNTING POSITION
ODU-1	1	"LO MULTI V'S VRF OUTDOOR UNIT - HEAT PUMP	ARJUM10L2ES	29 kW	-	-	240 kg	3Ph, 400V, 50Hz, 28A	ROOF - SUPPORT REQUIRED
ODU-2	2	"LO MULTI V'S VRF OUTDOOR UNIT - HEAT PUMP	ARJUM10L2ES	33.6 kW	-	-	240 kg	3Ph, 400V, 50Hz, 28A	ROOF - SUPPORT REQUIRED / BALCONY - PLINTH REQUIRED
ODU-3	1	"LO MULTI V'S VRF OUTDOOR UNIT - HEAT PUMP	ARJUM10L2ES	48.8 kW	-	-	260 kg	3Ph, 400V, 50Hz, 28A	ROOF - SUPPORT REQUIRED
ODU-4	2	"LO MULTI V'S VRF OUTDOOR UNIT - HEAT PUMP	ARJUM10L2ES	56 kW	-	-	330 kg	3Ph, 400V, 50Hz, 49A	ROOF - SUPPORT REQUIRED / BALCONY - PLINTH REQUIRED
ODU-5	1	"LO MULTI V'S VRF OUTDOOR UNIT - HEAT RECOVERY	ARJUM10L2ES	56 kW	-	-	330 kg	3Ph, 400V, 50Hz, 49A	BALCONY - PLINTH REQUIRED
ODU-2	1	"LO MULTI V'S VRF INDOOR UNIT - MID WALL	ARJUNSGS24A	19 kW	-	-	19 kg	HPV, 230V, 50Hz, 10A	WALL
ODU-3	1	"LO MULTI V'S VRF INDOOR UNIT - MID WALL	ARJUNSGS24A	4.5 kW	-	-	10 kg	HPV, 230V, 50Hz, 0.2A	WALL
ODU-4	1	"LO MULTI V'S VRF INDOOR UNIT - MID WALL	ARJUNSGS24A	11 kW	-	-	20 kg	HPV, 230V, 50Hz, 0.4A	WALL
ODU-6	3	"LO MULTI V'S VRF INDOOR UNIT - MID WALL	ARJUNSGS24V4	10.4 kW	-	-	20 kg	HPV, 230V, 50Hz, 0.4A	WALL
ODU-6	1	"LO MULTI V'S VRF INDOOR UNIT - CEILING CASSETTE	ARJUNJGTRC4	2.8 kW	-	-	15 kg	HPV, 230V, 50Hz, 1A	SOFFIT / TRUSS
ODU-7	1	"LO MULTI V'S VRF INDOOR UNIT - CEILING CASSETTE	ARJUNJGTRC4	4.5 kW	-	-	20 kg	HPV, 230V, 50Hz, 1A	SOFFIT / TRUSS
ODU-10	1	"LO MULTI V'S VRF INDOOR UNIT - CEILING CASSETTE	ARJUNJGTRC4	5.6 kW	-	-	20 kg	HPV, 230V, 50Hz, 0.2A	SOFFIT / TRUSS
ODU-11	4	"LO MULTI V'S VRF INDOOR UNIT - FRESH AIR INTAKE	ARJUNSGR82A	28 kW	595 l/s	216 Pa	80 kg	HPV, 230V, 50Hz, 1.6A	TRUSS
HRU-1	2	"LO MULTI V'S VRF HEAT RECOVERY BOX - 4 PORT	PHR3B3A	-	-	-	35 kg	HPV, 230V, 50Hz, 0.4A	TRUSS
HRU-2	1	"LO MULTI V'S VRF HEAT RECOVERY BOX - 6 PORT	PHR3B3A	-	-	-	35 kg	HPV, 230V, 50Hz, 0.4A	WALL
BU-1	1	SPLIT UNIT - MID WALL	M2AH4A	6.45 kW	-	-	45 kg(800 W) 15 kg(1000 W)	HPV, 230V, 50Hz, 10A	WALL / TRUSS
SE-1	2	SYSTEMSMAIR - 18" ABS FAN - CIRCULAR INLINE FAN	Pho Sert SP 183EC	-	885 l/s	200 Pa	5 kg	HPV, 230V, 50Hz, 0.2A	SOFFIT / TRUSS
SE-2	1	"SYSTEMSMAIR - SUPPLY AIR FAN - CIRCULAR INLINE FAN	Pho Sert SP 183 EC	-	885 l/s	200 Pa	5 kg	HPV, 230V, 50Hz, 0.2A	SOFFIT / TRUSS
EF-2	2	"XPELAR WINDOW MOTORIZED EXTRACTOR FAN	GWRC	-	145 l/s	-	15 kg	HPV, 230V, 50Hz, 0.2A	WINDOW
EF-3	1	"XPELAR WINDOW MOTORIZED EXTRACTOR FAN	GWRC	-	145 l/s	-	15 kg	HPV, 230V, 50Hz, 0.2A	WINDOW

<b>AIR DISTRIBUTION EQUIPMENT SCHEDULE (1)</b>					
<b>REF NO.</b>	<b>DESCRIPTION</b>	<b>SIZE</b>	<b>MODEL</b>	<b>COMMENTS</b>	
SG-1	"TPOX" SUPPLY DOUBLE DEFLECTION GRILLE CW PLENUM A O & B	200x200 AT			
SG-2	"TPOX" SUPPLY DOUBLE DEFLECTION GRILLE CW PLUMINUM C O & D	200x200 AT			
SG-3	"TPOX" SUPPLY DOUBLE DEFLECTION GRILLE CW PLUMINUM E O & D	550x250 AT			
B-D-1	"ET" DIFFUSER ADJUSTABLE SCREW EXTERNAL ELECTRIC ACTUATOR & CONTROLS	150mm	DURKOP E14-P		
E-C-1	"F" FRESH AIR INTAKE	1000x1000	Z-LVS-V200	0200mm	SPIGOTDUCT/FLEX
RAPF-1	"TPOX" RETURN AIR GRILLE CW HINGED FRAME PLENUM FILTER AND O & B	1200x600			
WL-1	ALUMINIUM WEATHER LOUVRE CW W M S	200x550	AWR		
WL-2	ALUMINIUM WEATHER LOUVRE CW W M S	250x250	AWR		
WL-3	ALUMINIUM WEATHER LOUVRE CW W M S	1000x1000	AWR		
ELD-1	EXISTING LOUVRE DOOR TO BE REFINISHED	3000x1500			PAINTED TO MATCH ARCHITECTS APPOINTMENT

DUCT ACCESSORY SCHEDULE (1)			
REF	NO.	DESCRIPTION	SIZE
FF-1	1	FRESH AIR PRIMARY FILTER C/W SLIDING FRAME	200x550
FF-2	2	FRESH AIR PRIMARY FILTER C/W SLIDING FRAME	250x250
FF-3	4	FRESH AIR PRIMARY FILTER C/W SLIDING FRAME	1000x1000
ATT-1	2	ROUND SOUND ATTENUATOR	Ø1515X900L
ATT-2	4	RECTANGULAR SOUND ATTENUATOR	300x450x500L
BD-1	1	BALANCING DAMPER	250x350
BD-3	1	BALANCING DAMPER	350x350

CONTROLLER SCHEDULE (1)		
REF.	NO.	DESCRIPTION
C1	19	LG STANDARD WALL CONTROLLER



<b>CONSULTANT INFORMATION</b>	
	<b>LSC CONSULTING ENGINEERS INC.</b> <i>Consulting Mechanical &amp; Wet Services Engineers</i>
<i>Head Office (J20)</i> Unit T45 Doncaster Park, 10 Derby Place, Derby Dovers Office Park, Wottonville, 3630 Tel: +27 (11) 285 2335	<i>Branch (P74)</i> 239 Lange Street, Ntswane Muckleneuk, Pretoria, 0181 Tel: +27 (12) 346 9676

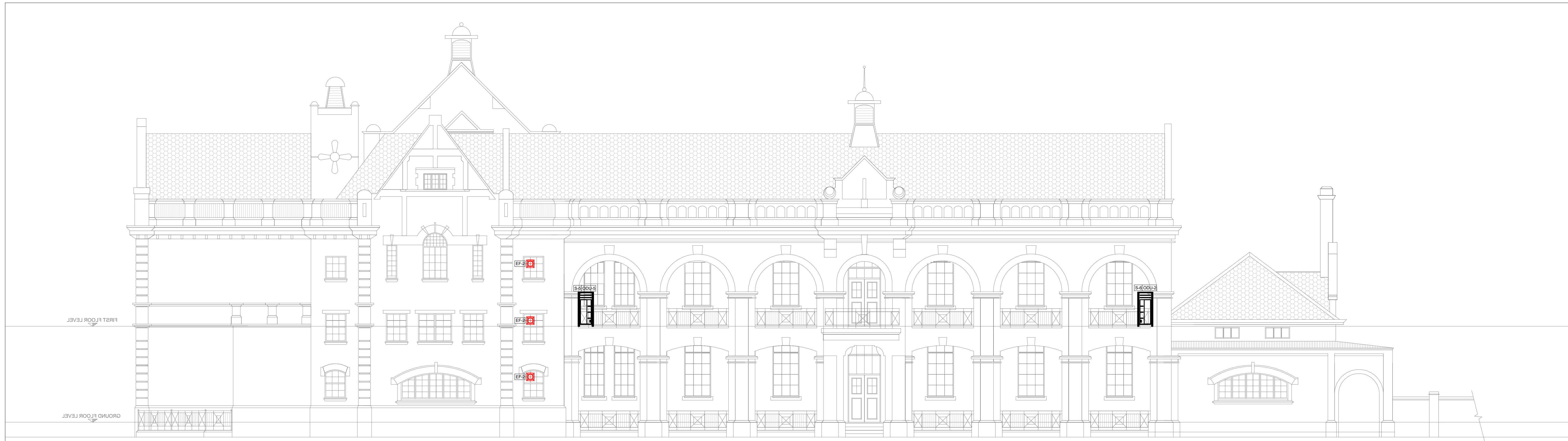
DESIGN INFORMATION			
DRAWN: PI	DESIGNED: SG	CHECKED: GG	DATE: 08/25/22

CLIENT INFORMATION	
CLIENT LOGO:	CLIENT NAME:
	Msunduzi Museum

PROJECT INFORMATION	
PROJECT DESCRIPTION:	Building / HVAC Upgrade
PROJECT NAME:	Msunduzi Complex Main Museum
ADDRESS:	351 Langalibalele St, Pietermaritzburg

DRAWING INFORMATION	
DRAWING TITLE: HVAC Layouts - First & Mezzanine	
DRAWING SCALE: As indicated	SHEET SIZE: A0
DRAWING NUMBER: LSG-2204-HVAC-101	REVISION: T0



[illegible]

1 North East Elevation (Boshoff Street)  
1 : 100



2 North West Elevation  
1 : 100



3 South East Elevation (Longmarket Street)  
1 : 100

4 South West Elevation  
1 : 100

CONSULTANT INFORMATION			
		LSG CONSULTING ENGINEERS INC. Consulting Mechanical & Fire Services Engineers	
Head Office: Unit 10, The Pinnacle Park, 10 Pinnacle Drive, Riverside Office Park, Wentzville, 2010		Branch (PPE): 239 Langkai Street, Negeri Sembawang, Singapore 61011	
Tel: +65 6737 2355		Tel: +27 (0)2 366 6055	
DESIGN INFORMATION			
DRAWN: PL	DESIGNED: SG	CHECKED: GG	DATE: 05/10/22
CLIENT INFORMATION			
CLIENT LOGO: 		CLIENT NAME: Msumduzi Museum	
PROJECT INFORMATION			
PROJECT DESCRIPTION: Building / HVAC Upgrade			
PROJECT NAME: Msumduzi Complex Main Museum			
ADDRESS: 351 Langalabalele St, Pietermaritzburg			
SITE DESCRIPTION: Museum			
DRAWING INFORMATION			
DRAWING TITLE: HVAC Elevations			
DRAWING SCALE: 1 : 100		SHEET SIZE: A0	
LSG-2204-HVAC-11		REVISION: TO	



## **Refurbishment and Upgrading of uMsunduzi Museums Buildings**

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### **Lift Drawings**







## **Refurbishment and Upgrading of uMsunduzi Museums Buildings**






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### **Electrical Drawings**



## ELECTRICAL LEGEND

-  48W SUSPENDED LINEAR LED
-  40W SURFACE LINEAR LED
-  12W ATOM DIFFUSE DOWNLIGHT
-  1 LEVER 1 WAY SWITCH
-  1 LEVER 2 WAY SWITCH

## ELECTRICAL NOTES

1. EXISTING LIGHTING POINTS TO BE UTILISED.
2. EXISTING SWITCHING POINTS TO BE UTILISED.

ISSUED FOR INFORMATION

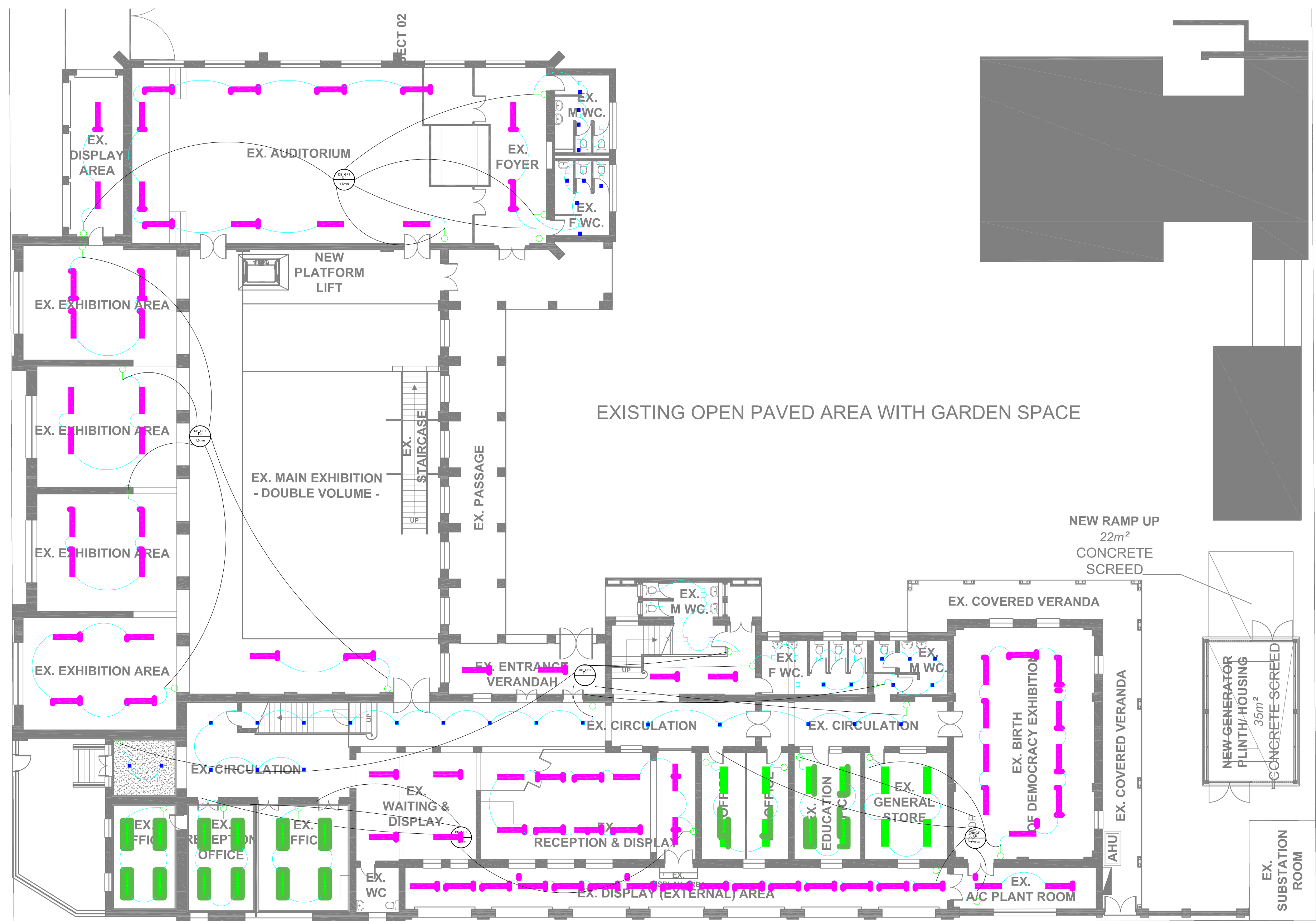
TEL: 031 572 5723  
FAX: 086 650 6477  
EMAIL: [Damiane@hamsaeng.co.za](mailto:Damiane@hamsaeng.co.za)

Project	MSUNDUZI MUSEUM
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Drawing description







## GROUND FLOOR LIGHTING LAYOUT

Drawn	DM	Date
Scale	1:150	31/03/2023
Drawing number  WD001		Revision
		0





## ELECTRICAL LEGEND

	48W SUSPENDED LINEAR LED
	40W SURFACE LINEAR LED
	12W ATOM DIFFUSE DOWNLIGHT
	144W SUSPENDED PENDANT
	1 LEVER 1 WAY SWITCH
	1 LEVER 2 WAY SWITCH

## ELECTRICAL NOTES

1. EXISTING LIGHTING POINTS TO BE UTILISED.
2. EXISTING SWITCHING POINTS TO BE UTILISED.

- 

ISSUED FOR INFORMATION

TEL: 031 572 5723  
FAX: 086 650 6477  
EMAIL: [Damiane@hamsaeng.co.za](mailto:Damiane@hamsaeng.co.za)

project

MSUNDUZI MUSEUM

Drawing description

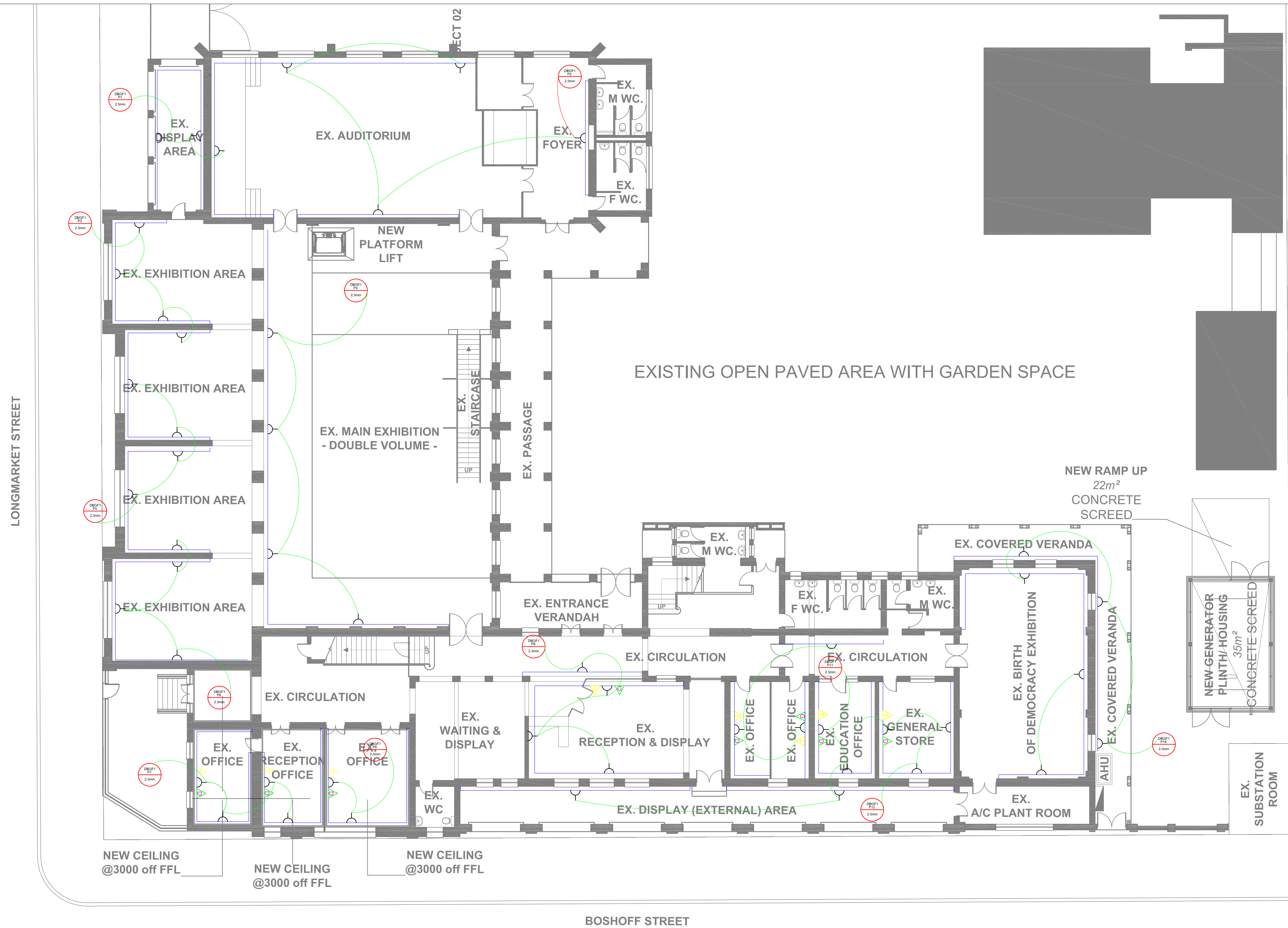
## FIRST FLOOR LIGHTING LAYOUT

Drawn	DM	Date
Scale	1:150	31/03/2023
Drawing number		Revision
WD002		0





FIRST FLOOR - EXISTING LAYOUT WITH NEW LIFT



ELECTRICAL LEGEND

- SWITCH SOCKET OUTLET
- DEDICATED SWITCH SOCKET OUTLET
- TELEPHONE POINT
- NETWORK POINT
- DISTRIBUTION BOARD
- 2 CHANNEL POWER SKIRTING

ELECTRICAL NOTES

1. SOCKET OUTLETS TO BE WIRED AS PER SANS 10142
2. EXISTING SOCKET OUTLET POSITIONS TO BE UTILISED, EXISTING WIREWAYS TO ALSO BE UTILISED.
3. NEW WIRE TO ALL NEW ELECTRICAL OUTLETS.

ISSUED FOR INFORMATION

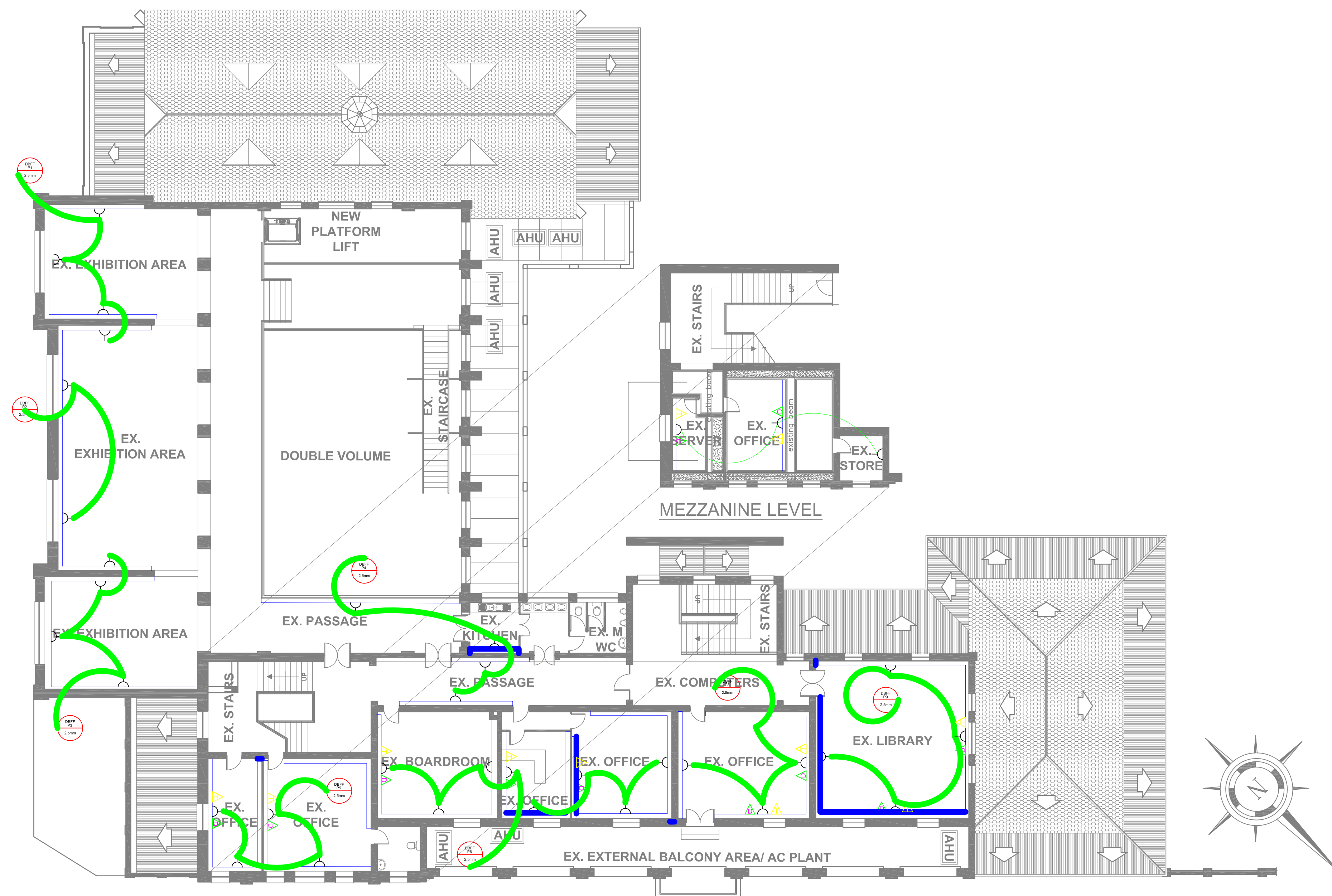
TEL: 031 572 5723  
FAX: 086 650 6477  
EMAIL: Damiane@hamsaeng.co.za

Project  
MSUNDUZI MUSEUM

Drawing description  
POWER\_LAYOUT  
GROUND\_FLOOR

Drawn	DM	Date
Scale	1:150	31/03/2023
Drawing number	WD 003	Revision
		0





#### ELECTRICAL LEGEND

- SWITCH SOCKET OUTLET
- DEDICATED SWITCH SOCKET OUTLET
- TELEPHONE POINT
- NETWORK POINT
- DISTRIBUTION BOARD
- 2 CHANNEL POWER SKIRTING

#### ELECTRICAL NOTES

1. SOCKET OUTLETS TO BE WIRED AS PER SANS 10142
2. EXISTING SOCKET OUTLET POSITIONS TO BE UTILISED, EXISTING WIREWAYS TO ALSO BE UTILISED.
3. NEW WIRE TO ALL NEW ELECTRICAL OUTLETS.

ISSUED FOR INFORMATION

TEL: 031 572 5723  
FAX: 086 650 6477  
EMAIL: Damiane@hamsaeng.co.za

Project  
MSUNDUZI MUSEUM

Drawing description  
POWER\_LAYOUT  
FIRST\_FLOOR

Drawn	DM	Date
Scale	1:150	31/03/2023
Drawing number	WD 004	Revision
		0



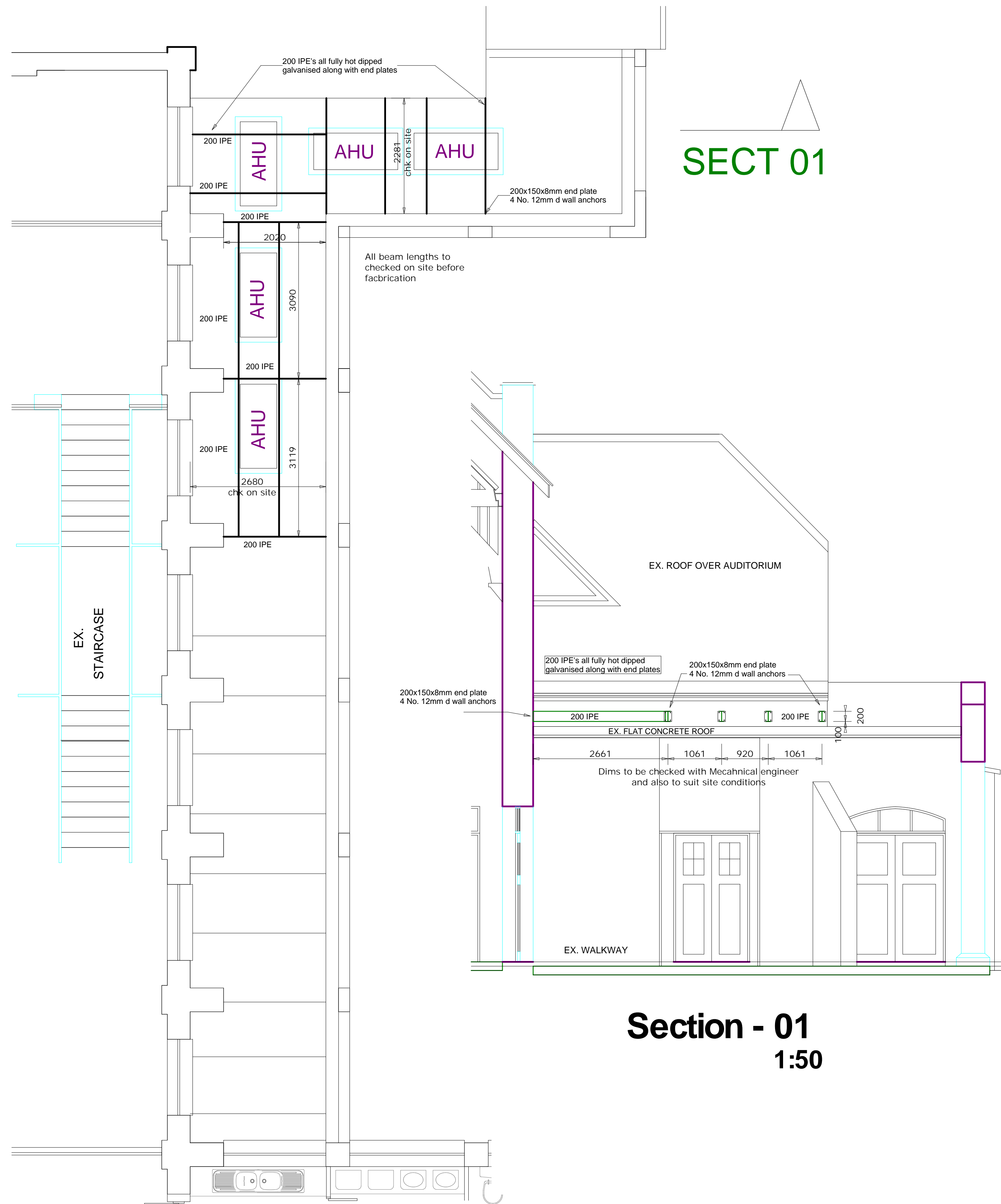
## **Refurbishment and Upgrading of uMsunduzi Museums Buildings**

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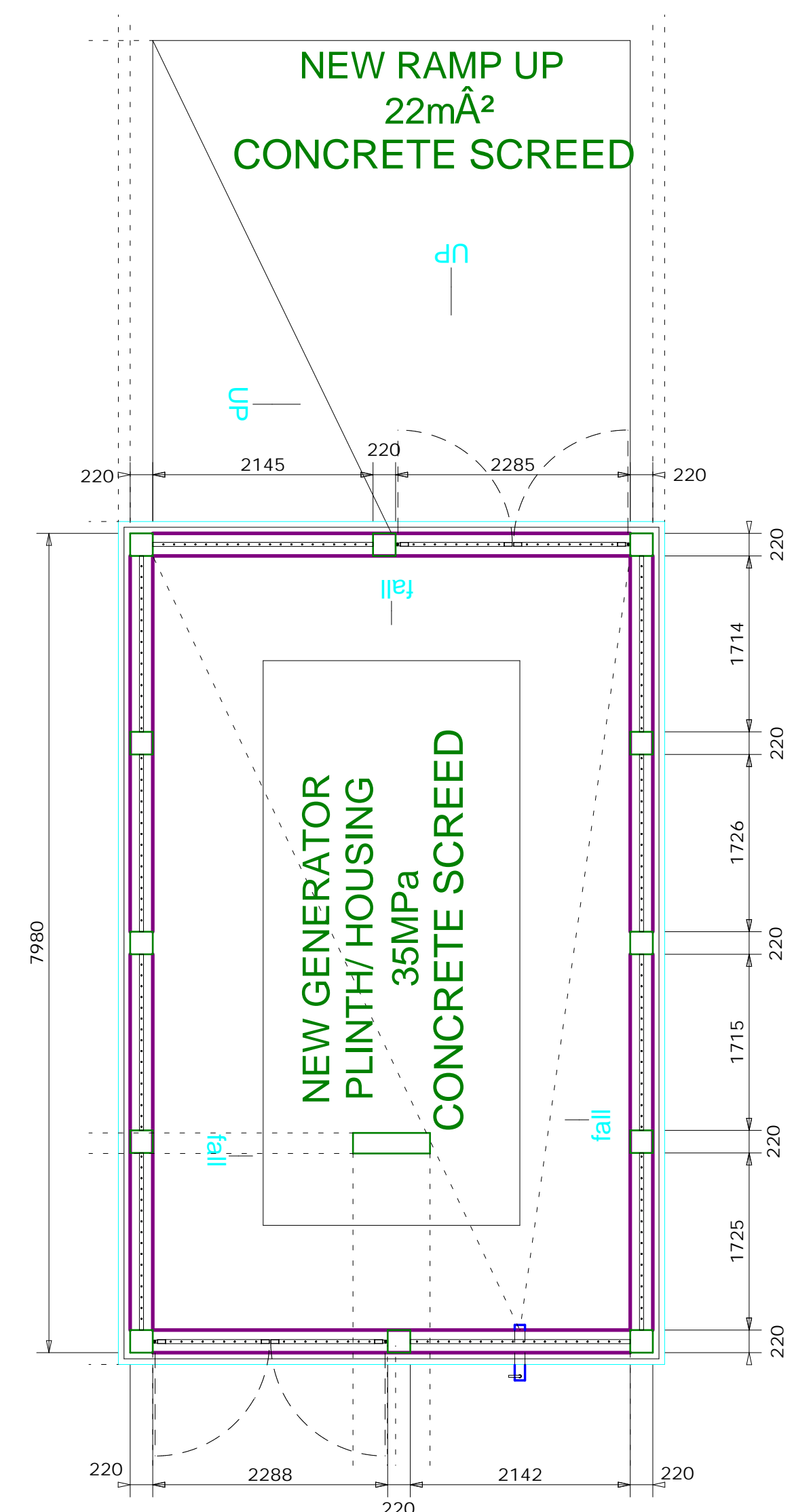
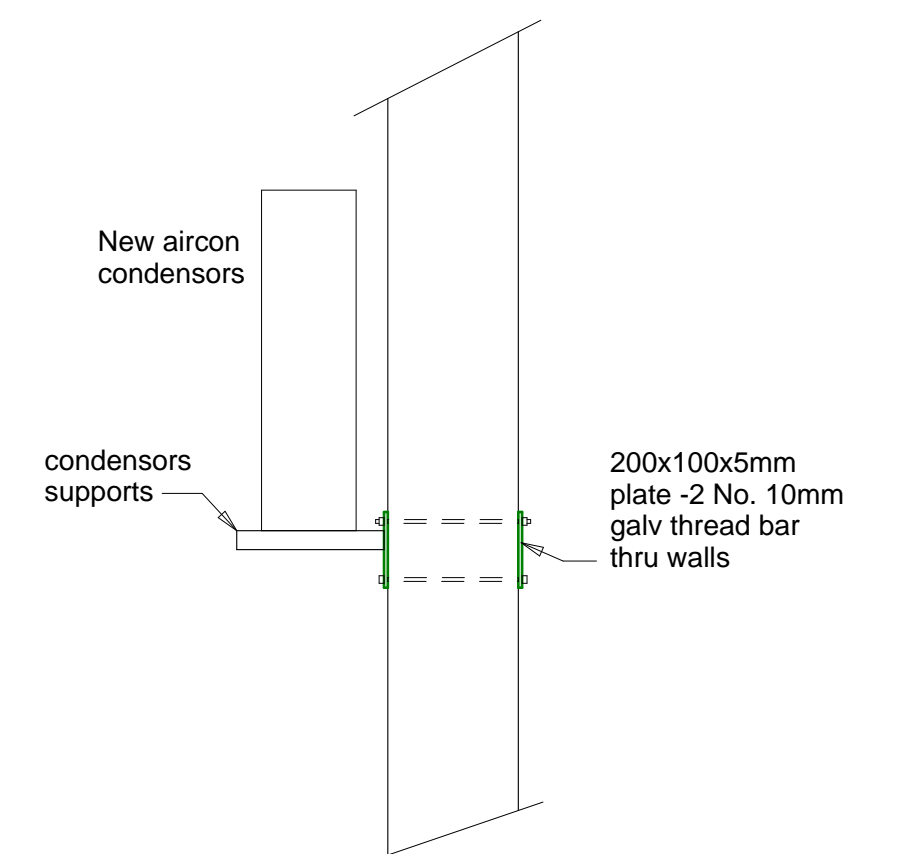
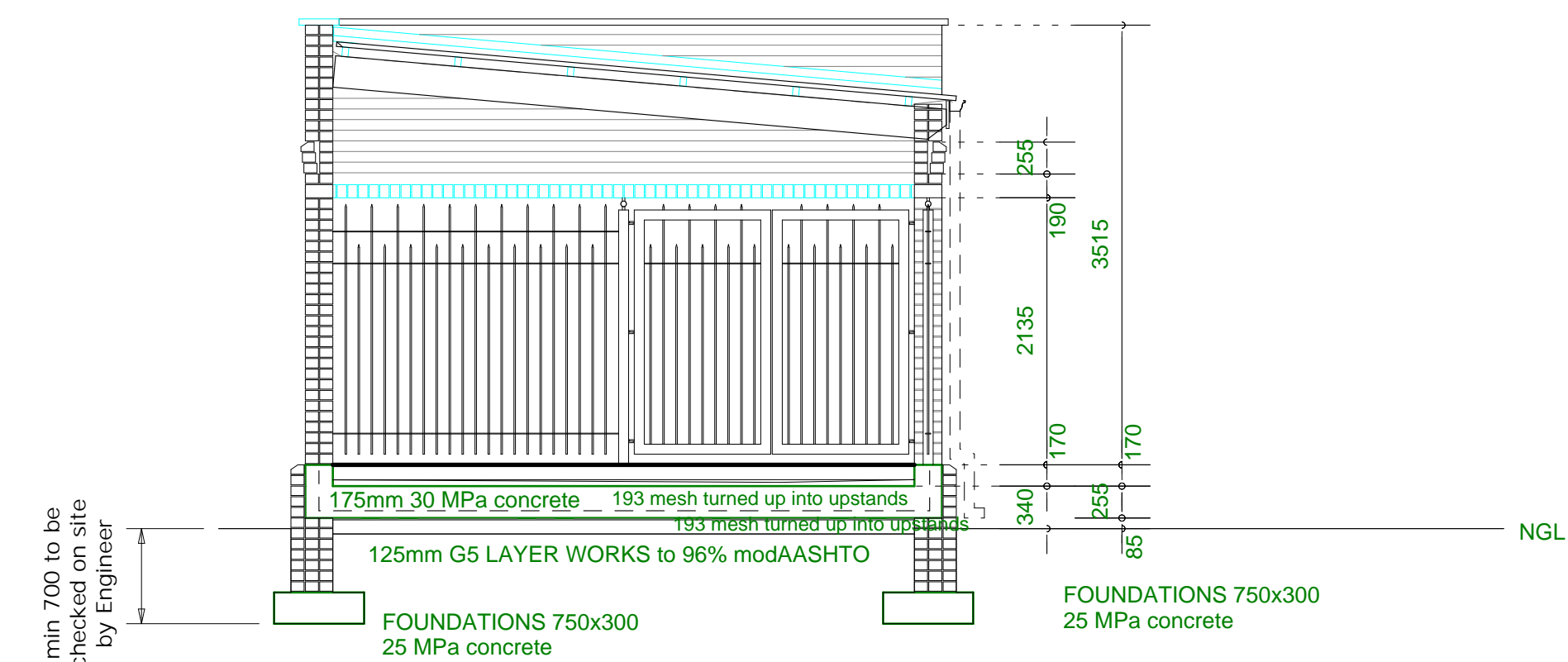
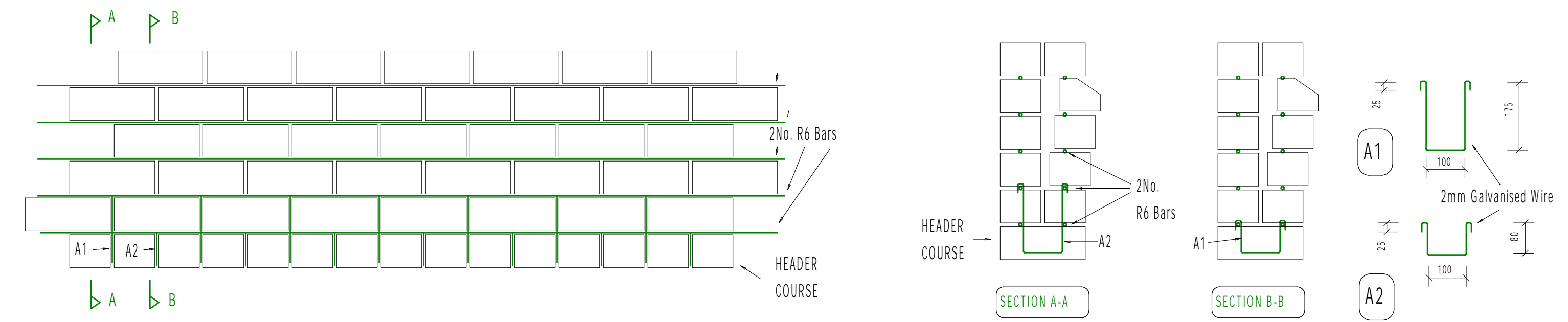
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# **STRUCTURAL DRAWINGS**



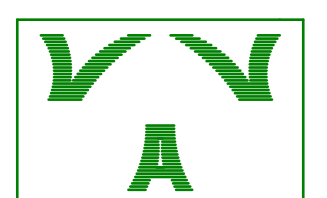


## Plan on lean-to roof



uMsunduzi  
Museum

## Structural info



22 Montrose park Blvd VCCE , Pietermaritzburg, 3201  
P . O . Box 325 , Pietermaritzburg , 3200  
Ph 033 3473606 : Fax 033 347 5715  
email : dpv1@mweb.co.za

**Consulting Civil & Structural Engineers**

Pr. Eng. No. 970155

Drawing  
Y2023-007-01

Rev  
A