



SABS ...Dekro brings Paint to Life... 

PROJECT CASE STUDY

Listen; Live & Learn Campus

STELLENBOSCH
WESTERN CAPE





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01 SUMMARY

This case study represents a comprehensive overview of the external repainting project carried out at Listen, Live & Learn Campus at Stellenbosch University, Stellenbosch. The project involved surface preparation, remedial repairs, and full repainting of external walls, trims, and structural elements. The initiative aimed to protect the building envelope, improve aesthetic appeal, and extend the life expectancy of surface materials.



02 PROJECT BACKGROUND

LLL is a flagship senior student residence program at Stellenbosch University designed to foster social cohesion, develop change agency, and provide an experiential learning opportunity for students to engage with diversity and different perspectives. It operates on the principle of bringing together students from diverse backgrounds (race, gender, field of study, etc.) within themed houses.

A detailed paint specification is of paramount importance for an external redecoration project for several key reasons, especially in the context of Stellenbosch, Western Cape, which experiences a Mediterranean climate with hot, dry summers and cool, wet winters:

Ensuring Durability and Longevity:

- **Weather Resistance:** Stellenbosch experiences significant temperature variations, UV radiation, and seasonal rainfall. A proper paint specification will ensure that the chosen paint system can withstand these conditions without premature fading, cracking, peeling, or blistering. This is crucial for minimizing maintenance costs and ensuring the redecoration lasts for a significant period.
- **Protection of Substrates:** The paint acts as a protective layer for the underlying building materials (concrete, plaster, wood, metal). The specification will dictate the correct primers and topcoats to prevent moisture ingress, corrosion, and other forms of damage, thereby prolonging the lifespan of the buildings themselves.
- **Resistance to Biological Growth:** The damp winters in Stellenbosch can promote the growth of mould, mildew, and algae on external surfaces. The paint specification can include the use of fungicidal and algacidal additives to resist this growth, maintaining the aesthetic appeal and preventing potential health issues.
- **Abrasion and Impact Resistance:** Student campuses are high-traffic areas. The specified paint should be durable enough to withstand accidental bumps, scrapes, and general wear and tear, especially in areas like walkways and common spaces.

2. Maintaining Aesthetics and Visual Appeal:

- **Color Consistency and Retention:** A detailed specification ensures that the chosen colors are accurately matched and will retain their vibrancy over time, despite sun exposure. This is important for maintaining the overall look and feel of the campus and contributing to a positive environment for students.
- **Uniform Finish:** The specification will define the required finish and application methods to ensure a consistent and professional appearance across all painted surfaces.
- **Enhancing Campus Image:** A well-executed redecoration project with a high-quality paint finish can significantly enhance the overall image and appeal of the student campus, contributing to student pride and attracting prospective students.

3. Cost-Effectiveness in the Long Run:

- **Reduced Maintenance Cycles:** While higher-quality paints might have a higher initial cost, their durability and resistance to degradation mean less frequent repainting, saving significant costs in the long term on materials and labor.
- **Prevention of Structural Damage:** By protecting the underlying building materials, a good paint system helps prevent costly structural repairs that can arise from water damage or corrosion.


4. Health and Safety Considerations:

- **Low VOC (Volatile Organic Compounds) Paints:** The specification can mandate the use of paints with low or zero VOCs to minimize the emission of harmful chemicals, ensuring a healthier environment for students and staff, both during and after application.
- **Non-Toxic Materials:** Specifying non-toxic paints is crucial in an environment where many people live and interact closely.

5. Compliance and Standards:

- **Adherence to Building Codes:** The paint specification can ensure that the chosen materials and application methods comply with local building codes and regulations.
- **University Standards:** Stellenbosch University has its own standards for the quality and appearance of its buildings. A detailed specification helps ensure these standards are met.



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03 SCOPE OF WORKS

Scope of works

External Surfaces			
Number	Description	Product	Spread rate *
Spec 1	Walls – Cement Plaster (Previously painted)	Dekro Masonry Primer Xterior Guard	6m ² /l 7m ² /l
Spec 2	Parapet Walls	Dekro Masonry Primer Fibre Reinforced Xterior Guard	6m ² /l 4m ² /l 7m ² /l
Spec 3	Boundary Walls and Garden Walls	Dekro Masonry Primer Pure Matt Acrylic	6m ² /l 9m ² /l
Spec 4	Ceilings – Previously Painted with Acrylic	Pure Matt Acrylic	8m ² /l
Spec 5	Painted Wood – Fascias, Soffits, Sprockets, Doors & Door Frames	Wood Primer Pure Velvet	6m ² /l 9m ² /l
Spec 6	Varnished Wood – Doors, Door Frames, Pergolas etc.	Timbertek	8m ² /l

* Average surface texture – primers will vary vastly in surface coverage depending on the roughness and porosity of surface. Refer to technical data sheet

Exclusions

- Waterproofing other than specified (Including Walkways)
- Roof coatings and repairs

04 REMEDIAL REPAIR WORK

01 *Hairline Cracks:*

These are very fine, surface-level cracks often in paint or thin coatings. Repairs typically involve cleaning the crack and applying a flexible sealant or paint that can accommodate minor movement.

02 *Plaster Cracks:*

These are wider cracks within the plaster layer. Repairs involve opening the crack slightly, cleaning it, filling it with a suitable plaster compound, and then re-texturing and painting the area to blend with the surrounding surface.

03 *Plaster Repairs:*

This is a broader term encompassing various issues with plaster, including cracks, holes, or delamination (where the plaster separates from the underlying surface). Repairs range from filling small defects to removing and replacing larger damaged sections, ensuring proper bonding to the substrate.

04 *Spalling Repairs:*

Spalling refers to the crumbling or flaking of concrete or masonry surfaces. Repairs involve removing loose and damaged material, cleaning the exposed area, applying a bonding agent, and then patching with a compatible repair mortar or concrete. For significant spalling, reinforcement may also need repair or replacement.

05 *Expansion Joints:*

These are designed gaps in a building's structure to accommodate movement due to temperature changes or settlement. Remedial work involves inspecting and cleaning these joints, and replacing any damaged or deteriorated sealant or joint filler to maintain their flexibility and prevent stress on adjacent materials.

06 *V-Joints:*

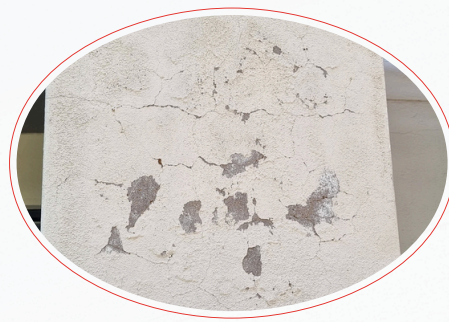
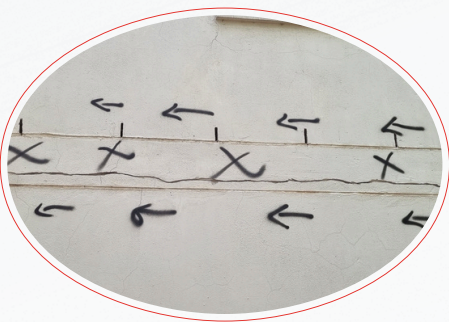
These are typically control joints in masonry or plasterwork, creating a deliberate line of weakness to control where cracking occurs. Repairs involve cleaning out any debris or failed sealant and reapplying a flexible sealant to maintain their function and appearance.

07 *Frame to Masonry Joints:*

These are the junctions where structural frames (steel or concrete) meet masonry walls. Repairs address issues like cracking or gaps due to differential movement. This often involves cleaning the joint and applying a flexible sealant or installing compressible joint fillers to allow for movement while preventing water ingress.

08 *Exposed Horizontal Surfaces and Waterproofing:*

This refers to areas like balconies, roofs, or walkways that are susceptible to water damage. Remedial work involves identifying the source of leaks or deterioration, repairing any cracks or damage to the substrate, and then applying or repairing the waterproofing membrane or coating to prevent further water penetration. This might involve patching, resealing, or complete replacement of the waterproofing system.





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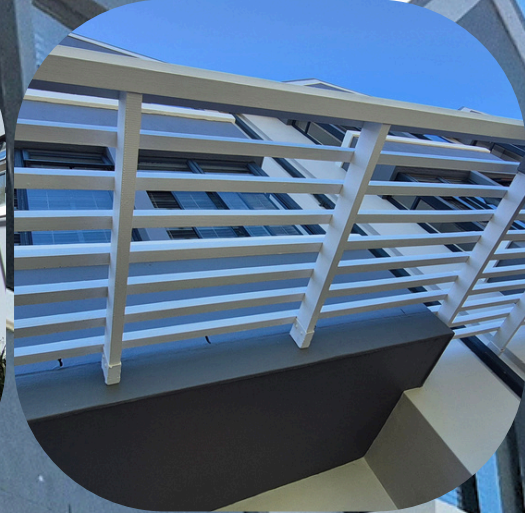
PHOTOGRAPHIC EVIDENCE - BEFORE & PREPARATION





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PROJECT COMPLETION





06 CHALLENGES & SOLUTIONS

Repainting the LLL Campus presented a unique set of challenges, which required careful planning and tailored solutions:

Challenges:

- Stellenbosch has a Mediterranean climate with hot, dry summers, with significant temperature variations, UV radiation and cool, wet winters with seasonal rainfall.
- Disruption to students: As this project was undertaken during exams, consideration as not to disrupt the students and lecturers alike, had to be taken into consideration to ensure minimum noise levels during the remedial repairs phase.
- Tight Timeframes: To minimize disruption, repainting projects often have tight deadlines, requiring efficient project management and execution.
- Waste Management: Proper disposal of paint waste and cleaning materials according to local environmental regulations had to be considered.
- Security: Ensuring the safety of equipment and materials overnight and managing access to different areas of the mall during and after operating hours is important.

Solutions:

- **Climate-Appropriate Paint Systems:** Dekro's Green Generation Products, labelled with the green daisy, indicates that they are friendly to both us and the environment. They have been specifically formulated to contain zero levels of any harmful substances including VOC's, APEO, MEG, Formaldehyde, Ammonia and Solvents.
- **Thorough Surface Preparation:** Surfaces were high pressure washed, and primed to enhance adhesion and prevent moisture-related issues. For metal surfaces, proper rust treatment and anti-corrosive primers and top coats were applied.
- **Phased Approach and Flexible Scheduling:** The project was broken down into manageable phases and the painting was scheduled as not to affect the students or lecturer's.
- **Experienced Contractors:** Indawo Construction were employed for this undertaking, and all factors were taken into consideration. The project ran for a total of 3 months, due to the seasonal shut down period.
- **Detailed Project Management and Communication:** A comprehensive project plan with clear timelines, communication protocols, and a contingency plan as well as weekly site inspections conducted by Dekro Paints to ensure the specification was being followed.
- **Eco-Friendly Practices:** Responsible waste management practices were implemented for the cleaning of equipment and low VOC (Volatile Organic Compound) from the Dekro Paints Enviro Range were used.
- **Security Measures:** Security protocols to safeguard equipment and painted areas, especially during non-operating hours were implemented.
- **Collaboration and Stakeholder Management:** Regular site meetings were conducted with University Management and Indawo Contractors to ensure the project ran on schedule and all deadlines were met.

07 PROJECT OUTCOME & CONCLUSION



The project was completed within 18 months, adhering to safety and environmental standards. The client expressed satisfaction with the visual transformation and professionalism of the team. Post-project inspection revealed no defects, and a 7-year product guarantee was issued.

Products Used:

- Dekro Masonry Primer
- Dekro Fibre Reinforced
- Dekro Xterior Guard
- Dekro Non Drip Enamel

