GROOTE SCHUUR HOSPITAL UPGRADE PROGRAMME

MAP OF THE PROJECT

All projects are spatially integrated within the hospital precinct - the electrical backbone underpins all upgrades, ensuring that each system, from ventilation to lifts and boilers, connects into a resilient, data-ready infrastructure grid. This systems-based design reflects the WCIF 2050 Panoptic Principles, aligning infrastructure innovation with spatial justice, sustainability and public trust.

PROJECT SUMMARY

The Groote Schuur Hospital Upgrade Programme is a mission-driven modernisation initiative transforming one of South Africa's most iconic healthcare institutions into a safer, smarter, and more sustainable facility. Anchored by a comprehensive 11kV electrical network upgrade, the programme integrates multiple infrastructure projects - from outpatient refurbishments and lift replacements to fire safety, HVAC renewal, and boiler plant efficiency upgrades. This is one of the most significant infrastructure undertakings for Groote Schuur Hospital. This high-voltage system is the backbone that delivers power from the city grid to every ward, theatre, laboratory and emergency service. It's comparable in scale to rebuilding the power grid of a small town, ensuring safer, smarter and uninterrupted energy for decades to come. Guided by the Western Cape Infrastructure Framework 2050, the project embodies innovation, resilience and regenerative design. It is not merely about new systems, but about shaping equitable access to quality healthcare through infrastructure that supports trust, energy security and spatial justice.

PROJECT STATUS

Design development and detailed documentation for all components, including electrical, mechanical and architectural, have been completed, with statutory approvals secured from the City of Cape Town and the Department of Infrastructure. Procurement processes are now advancing for phased construction, beginning with the electrical and lift packages. Using a systems-thinking approach, project teams are coordinating interfaces across HVAC, fire safety and boiler installations to ensure seamless integration and to prevent service disruptions. Sustainability and energy efficiency benchmarks are embedded throughout, aligning with the Western Cape Green Building Strategy and national SANS standards. Each phase incorporates job creation, transformation and local skills transfer commitments. Guided by transversal governance under the WCIF 2050 framework, the programme demonstrates a disciplined readiness for implementation of a coordinated, data-driven upgrade designed to improve safety, reliability and equitable healthcare access across Groote Schuur Hospital.

FINANCIAL NEEDS

Approximate value: R1.5 billion

The Groote Schuur Hospital Upgrade Programme represents a consolidated capital investment of approximately R1.5 billion, embedded within the Provincial Infrastructure Programme Implementation Plan (IPIP). The flagship 11 kV Electrical Upgrade accounts for R166 million, while the Fire Safety (Alpha) Project is costed at R481 million, and the Lift Upgrade Programme totals R27 million across 13 units. The HVAC refurbishments and Boiler Plant Replacement collectively contribute a further R250 million. Each subproject integrates lifecycle costing, energy-efficiency modelling and contingency provisions of up to 10% for inflationary pressure and scope adjustments. Provincial funding is supplemented by opportunities for green-infrastructure partnerships and performance-based maintenance contracts. Together, these investments ensure fiscal responsibility, transparent governance and long-term value for money consistent with the Infrastructure Delivery Act (IDA) and the WCIF 2050 sustainable capital principles.

KEY STAKEHOLDERS

- **Programme Owner & Beneficiary:** Western Cape Government – Department of Health and Wellness
- **Implementing Department:** Western Cape Government – Department of Infrastructure
- **Technical & Consulting Partners:** iX Engineers | Triocon Consulting Engineers | BVi Consulting | Specialist Contractors
- **Hospital Leadership:** Dr. Shaheem de Vries (CEO) | Denton Smith (Engineering) | Ronald de Jager (Planning & Commissioning Unit / Hospital Administration)
- **Governance & Oversight:** City of Cape Town | National Treasury | Provincial Infrastructure Programme Delivery Unit

Western Cape Government
FOR YOU

GROOTE SCHUUR HOSPITAL UPGRADE PROGRAMME

PRIVATE SECTOR OPPORTUNITY

Private sector engagement can include:

- Partnering in smart infrastructure integration and SCADA/BMS technology solutions.
- Delivering energy-efficient plant, HVAC and renewable-powered systems under performance models.
- Investing in sustainable engineering and maintenance partnerships through green PPPs.
- Providing local innovation and skills transfer within construction, manufacturing and digital operations.

KEY COMPONENTS

Electrical Upgrade

Replaces 11kV switchgear, modernises power distribution and enables SCADA integration.

OPD Refurbishment

Revitalises high-traffic clinical spaces for safer, more accessible patient care.

Lift Upgrades

Improves vertical mobility and emergency response with 13 new and upgraded lifts.

Ventilation & Air Conditioning

Introduces high-efficiency HVAC systems to ensure clean air and comfort.

Fire Safety Systems

Enhances compliance and life-safety resilience across hospital blocks.

Boiler Plant Replacement

Replaces ageing units with energy-efficient, low-emission boilers aligned with green standards.

TIMELINE

Stage	Milestone	Key Activities & Deliverables	Target Date
**S1 – S2	Concept & Briefing**	Strategic briefs approved; facility condition assessments; project prioritisation within the Provincial Infrastructure Programme (IPIP); early risk and stakeholder mapping.	Q1 – Q4 2023
**S3	Design Development**	Detailed designs for electrical, HVAC, lifts, fire safety, and boiler systems; BIM and systems-integration modelling; cost verification and sustainability alignment with WCIF 2050 Principles 1–3.	Q1 – Q4 2024
**S4	Documentation & Procurement**	Final FIDPM Stage 4 documentation; statutory approvals from City of Cape Town; tender packaging for phased contracts; MTEC budget confirmation; pre-construction coordination.	Q1 – Q3 2025
**S5	Construction Phase 1**	11 kV Electrical Upgrade and Lift Programme commence; temporary power routing and access systems; live-hospital risk management protocols implemented.	Q3 2025 – Q4 2026
**S5 (cont.)	Construction Phase 2**	Fire Safety (Alpha) works, HVAC refurbishments, and Boiler Plant Replacement executed in parallel; OPD refurbishment initiated once electrical systems stabilised.	Q1 2027 – Q3 2028
**S6	Handover & Commissioning**	System testing, certification, and staff training; SCADA and BMS integration; staged occupation of refurbished zones.	Q4 2028 – Q1 2029
**Close-Out	Evaluation & Sustainability Integration**	Post-occupancy evaluation; energy-performance and lifecycle monitoring; maintenance contract activation; lessons learned documented for replication across WCG facilities.	Mid 2029

CLOSING INSIGHT

Upgrading the 11 kV electrical network is one of the most significant infrastructure undertakings for a hospital. This high-voltage system is the backbone that delivers power from the city grid to every ward, theatre, laboratory and emergency service. Replacing it means modernising the hospital's entire electrical heart — the substations, transformers and control panels that keep lifesaving equipment running. It's comparable in scale to rebuilding the power grid of a small town, ensuring safer, smarter and uninterrupted energy for decades to come. It is a collaborative mission that uses systems thinking to modernise healthcare delivery, stimulate local economies, and drive equitable development. By converging technical innovation with social purpose, it demonstrates how South Africa can reimagine its hospitals as regenerative, resilient and inclusive engines of public value.