



GROOTEGELUK ARRIVALS/DEPARTURES YARD – LED TYPE HIGH MAST LIGHTING



HOLISTIC RAIL SOLUTIONS

At R&H, we understand that the Power and Lighting infrastructure within the railway environment forms an integral part of the multidisciplinary rail solution.

Our approach is to ensure a cost efficient and appropriate result that meets client and engineering requirements at all times. We achieve this through combining client's needs, technical standards, engineering technology, logistic constraints and operational performance into a balanced integrated system.

This holistic approach requires diverse understanding of OHE, Substations and Power & Lighting by our electrical design team to integrate with multidisciplinary teams throughout the project phases, ensuring that the optimum solution benefits the overall project infrastructure requirements and long-term operational benefits.





POWER AND LIGHTING INFRASTRUCTURE SERVICES

The scope of our Power & Lighting (P&L) infrastructure services extends from concept studies through feasibility phases to implementation design, construction management and project close-out. We offer support services to Project Management, Operational Planning, Technology Development, Maintenance Management and Training including:

- Analysis of existing railway P&L systems (brownfields)
- Analysis of interfacing services (greenfields)
- Feasibility analysis and costing
- Cost efficient solutions for expected asset life-cycles, purpose and conditions
- Designing infrastructure layouts in collaboration with other services
- Selection of appropriate technology
- Influence on or by OHTE, Substations, Perway, Signalling & Telecommunications and Rail Operations
- Considerations of expandability
- Integration into other systems and assets
- System and project specifications and BoQ's
- Procurement processes and tendering
- Construction management
- Condition audits and reporting
- Maintenance management

POWER AND LIGHTING (P&L)

As an integral part of R&H's holistic approach, LV power supplies and infrastructure such as rail yard lighting installations are incorporated into our service where we ensure the following is undertaken:

- Interpretation of client's and statutory illumination requirements
- Systems applications
- Appropriate lighting technology selection
- Yard area lighting and power reticulation design
- Interior lighting and building power distribution design and refurbishment
- Maintenance condition auditing

RECENT PROJECTS

Recent projects where we have provided the above services either as part of the holistic multidisciplinary design effort or as a stand-alone service include:

- Inese 132/11kV AC New Distribution Substation – Yard and indoor Lighting Design (2018-2019);
- Refurbishment of PRASA's Durban, Booth and Northdene Traction Substations - Yard and indoor Lighting Design (2018-ongoing);
- Refurbishment of PRASA's Nyanga, Langa and Paarden Eiland Traction Substations in Cape Town - Yard and indoor Lighting Design (2018-ongoing);
- Majuba Rail Project (3kV, 25kV and 11kV Substations) - Yard and indoor Lighting Design (2016-2019);
- PRASA Durban Metro Resignalling Project Platform and Pedestrian bridges lighting design (2013 to 2018);
- PRASA Durban Metro Resignalling Project Main and Standby power supplies for signal and CTC installations (2013 to 2018);
- Exxaro – Grootegeluk Rail Area Lighting Design (2016-2019);
- Lighting Condition assessments for: Sishen KIO mine,
- Rail Area Lighting Maintenance Management – Khumanzi Iron Ore mine (ongoing);
- Tweefontein coal loading siding: Glencore (previously Xstrata Coal SA) Train inspection lighting design and Management (2010 to 2015);
- Imala Platinum Shaft #16 – Level crossing lighting (2012 to 2013)
- Mayoko Iron Ore Export Project - Exxaro (Republic of Congo) - Rail Area Lighting and power supply designs (2012 - 2014);