



Electrical Contractors

Roesner & Hamilton Electrical Contractors specialise in the design, installation, and commissioning of road and pathway lighting, Intelligent Transport Systems (ITS), and traffic signal infrastructure. They deliver comprehensive lighting solutions that meet Transport and Main Roads (TMR) and local authority standards, focusing on safety, energy efficiency, and long-term performance. Their expertise covers all stages of LED lighting projects—from foundations and pole erection to electrical connections and smart lighting integration—with advanced control systems that support smart city and sustainability objectives.

In addition, Roesner & Hamilton Electrical Contractors provide end-to-end ITS and traffic signal services, including electronic signage, vehicle detection, CCTV systems, and fibre optic communications networks. Their team installs, upgrades, and maintains traffic signals and transport technologies to ensure safe, reliable, and efficient traffic flow. All projects are carried out in compliance with TMR and AS/NZS standards, with rigorous testing and commissioning to guarantee system quality, reliability, and performance.

TECHNICAL CAPABILITIES



ROAD PATH & LIGHTING

- Design, installation, and commissioning of road and pathway lighting to TMR and local authority standards
- Delivery of complete LED lighting systems, including:
 - Foundation installation and pole erection
 - Electrical reticulation and luminaire mounting
 - Connection to distribution networks
- Use of advanced LED technologies for improved illumination, energy efficiency, and extended service life
- Integration of smart lighting controls, including dimming, motion/daylight sensors, and remote monitoring systems
- Real-time fault detection and optimisation through wireless or networked platforms
- Compliance with smart city and sustainability objectives
- Comprehensive testing and commissioning in line with AS/NZS 1158, AS/NZS 3000, and TMR standards, including:
 - Insulation resistance and continuity testing
 - Earthing verification and photometric validation
 - Full system performance and reliability checks prior to handover



INTELLIGENT TRANSPORT SYSTEMS

- **Electronic Signage:** Variable Message Signs, Lane Use Management, and speed advisory systems.
- **Vehicle Detection:** Inductive loops, radar detection, and ANPR technology for accurate traffic monitoring.
- **Communications Networks:** Fibre optic and wireless systems for high-speed, reliable data transfer.
- **CCTV Systems:** High-definition surveillance installation and integration for traffic and security monitoring.





Traffic Signals

- **Traffic Signal Installation:** Complete electrical and civil works for new intersections, including pole erection, cabling, pit and conduit installation, and controller commissioning.
- **Upgrades & Modifications:** Replacement of signal hardware, controller upgrades, and configuration of adaptive signal control systems.
- **Preventative & Corrective Maintenance:** Routine inspections, fault diagnosis, repairs, and testing to maintain system reliability and compliance.
- **Testing & Commissioning:** Verification of wiring, phasing, and communications to ensure safe and efficient operation.

Key Projects:



1 Smart LED Road Lighting Project Stages 1-3

The R&H Electrical Contractors team have proudly completed 3 stages of the LED Street Lighting Upgrade Project across the South Coast Region. Our crews installed over 18,000 new high-efficiency LED luminaires and more than 4,100 smart lighting controllers on various key roads – improving visibility, safety, and sustainability for local communities. Our team worked through the night to minimise traffic impacts and ensure the project was completed safely and efficiently. The result?

- Brighter and more uniform lighting for motorists and pedestrians
- Significant reduction in energy use and maintenance costs
- Smart control capabilities that enhance monitoring and fault response
- A safer, more sustainable road network for years to come



2 Quota Park Lighting Upgrade – Biggera Waters

Roesner & Hamilton Electrical Contractors delivered a comprehensive lighting upgrade along the Broadwater Foreshore at Biggera Waters. The project involved the installation of modern LED luminaires, new underground excavation, and cabling across 4,000+ metre section of shared pathway within Quota Park. The project was carefully managed to maintain public access, with all works completed under live pedestrian and cyclist conditions. Through effective staging and safety management, the team achieved minimal disruption to park users while enhancing the amenity, safety, and visibility of this key community corridor.



3 Variable Message Signs and Road Condition Information Signs

Roesner & Hamilton successfully delivered multiple Traffic Variable Message Signs (VMS) and Road Condition Information Signs (RCIS) supplied by :LED across the Toowoomba and Goondiwindi regions. The project formed part of an initiative to enhance road safety and improve the communication of real-time traffic and environmental conditions along key regional transport corridors in Queensland.

Our scope of works included the full electrical installation, integration, and commissioning of the new systems, along with associated civil works and functional validations. All works were completed in accordance with Transport and Main Roads (TMR) Specifications and relevant Australian Standards, ensuring system reliability and compliance with state network requirements.



4 Pacific Motorway (M1) – Exit 79 Lighting Upgrade, Mudgeeraba

Roesner & Hamilton completed the lighting upgrade works at Exit 79 on the Pacific Motorway (M1) in Mudgeeraba, delivering improved illumination and safety outcomes for one of South East Queensland's busiest motorway interchanges.

The project scope involved the removal of existing High-Pressure Sodium (HPS) luminaires and the installation of new energy-efficient LED lighting systems. Works were undertaken within a high-traffic environment, requiring detailed traffic management planning and night works scheduling to minimise disruption to motorists.

All electrical installation and commissioning activities were carried out in accordance with Transport and Main Roads (TMR) specifications and relevant Australian Standards. The completed upgrade has significantly enhanced visibility, reduced maintenance requirements, and contributed to safer night-time driving conditions for road users.



5 City of Gold Coast Wireless Network

Roesner & Hamilton delivered multiple projects supporting the expansion of the City of Gold Coast's Surf Network free public Wi-Fi system. Works included the installation of wireless access points, communication cabling, and power infrastructure across key sites such as the Oceanway between Surfers Paradise and Broadbeach and the new Greenheart parklands in Robina.

These installations enhance network coverage and connectivity across high-traffic public areas, contributing to improved digital accessibility and the city's broader smart technology initiatives.

