

# JOB ROLE STATEMENT

## PRINCIPAL ELECTRICAL AND ITS TECHNOLOGY ENGINEER SPECIFIED CALLING - LEVEL 4

**DIRECTORATE** REGIONAL MANAGEMENT AND OPERATIONS  
**BRANCH** METROPOLITAN REGION

**POSITION NO** VARIOUS

### KEY RESPONSIBILITIES

Interface with major projects to provide subject matter expertise and guidance on testing and commissioning of Electrical and Intelligent Transport Systems (ITS) assets, ensuring compliance with Main Roads' Guidelines and Specifications. Oversee asset transition to Main Roads' Electrical Asset Management. Manage trials of new Electrical and ITS products and solutions. Provide expert engineering advice on all aspects of Electrical and ITS asset management statewide.

### KEY DELIVERIES

#### SME for Electrical and ITS Project Development and Delivery

- Provide SME support to Office of Major Transport Infrastructure Delivery (OMTID) throughout Electrical and ITS projects, including engineering advice and reviewing SWTC documents per Main Roads' 700 series Specifications.
- Prepare and/or provide expert engineering input into preparation of technical briefs, projects scopes and contract specifications for Electrical and ITS projects and/or component of other projects.
- Provide early, detailed technical evaluations of proposed Operating and Maintenance Asset Manuals and supporting documents for handover to the 'Asset Owner', ensuring comprehensive coverage for ongoing maintenance and repair activities.

#### Electrical and ITS Asset Management

- Provide expert engineering advice on all aspects of Electrical and ITS asset management across the State.
- In collaboration with PEAE, develop and assess long-term strategies for managing electronic assets, including planning, programming, and reviewing electrical and ITS performance plans for the road network.
- Provide guidance for any new and/or revised asset management processes to adapt to the growth of network assets and emerging technologies.
- Provide expert insight into data collected from ITS assets, enhancing traffic management and safety.
- Provide expertise and direction to facilitate the creation of reports and analytics that support data driven decision making.

#### Electrical and ITS Asset Reliability and Performance

- Provide SME in Electrical and ITS to develop strategies that maximize asset reliability and performance throughout its lifecycle.
- Develop advanced technical troubleshooting processes for diagnosing and resolving intermittent faults in ITS devices.
- Develop comprehensive maintenance checklists for technicians to optimize asset reliability and upkeep efficiency.
- Manage data capture and fault analysis of devices to support reliability-centred maintenance and optimise decision-making.
- Develop strategies to ensure continuous operation of Electrical and ITS assets, minimizing downtime and maximizing reliability.

#### Innovations and Technological Advancements

- Serve as the primary specialist in ITS technology for Main Roads Electrical Asset Management.
- Manage the process to assess technological advancements for relevance to Main Roads' operations and recommend implementation based on needs.
- Manage research and development to enhance the reliability and performance of Electrical and ITS assets and procedures.
- Manage and oversee approval testing, including evaluations of new equipment, and manage trials of innovative traffic system technologies.
- Ensure compliance with evolving regulations and implement cybersecurity measures for Electrical and ITS assets.
- Manage, research and implement sustainable technologies and practices in Electrical and ITS infrastructure to meet environmental goals.

#### Leadership and Management

- Build and manage Main Roads' 'Centre of Expertise' for Electrical and ITS infrastructure services.
- Managing financial, technological, physical and other resources within agreed allocations to meet agreed outcome.
- Manage employee behaviour, performance and development.

#### Stakeholder Relationships

- Build and enhance collaborative relationships with Electrical Asset Management, Network Operations Directorate (NOD), and Infrastructure Delivery Directorate (IDD) including OMTID and other directorates to align with corporate objectives.
- Facilitate collaboration with external stakeholders, including transport agencies, local governments, and technology vendors, to ensure interoperable systems, enhance asset reliability, and optimise resource sharing.

### SAFETY, HEALTH AND WELLBEING (SHW)

Responsible for active participation and performance to SHW standards as detailed by the Main Roads' Safety, Health and Wellbeing (SHW) Management System – refer to "SHW Roles and Responsibilities Procedure" on 'iRoads' intranet.

### LOCATION

Main Roads is a regionalised organisation with key delivery centres operating from the Kimberley to the Great Southern Regions, including the metropolitan area. The incumbent position may be required to undertake a role in a region for a period of time.

### DYNAMIC RESOURCING

The incumbent of the position may be required to perform any other role within the incumbent's level of skill, competence and responsibility as directed by the Managing Director of Main Roads to meet the organisation's objectives and the incumbent's development

### REPORTING RELATIONSHIPS

This position reports to:

(A) **TITLE AND LEVEL**  
MANAGER ELECTRICAL ASSET MANAGEMENT

**LEVEL 5 (SPECIFIED CALLING)**

**POSITION NO**  
VARIOUS

# PRINCIPAL ELECTRICAL AND ITS TECHNOLOGY ENGINEER SPECIFIED CALLING - LEVEL 4

## POSITIONS UNDER DIRECT SUPERVISION

List the position numbers, titles and levels of positions directly supervised

## ALL POSITIONS UNDER CONTROL

State number of positions only

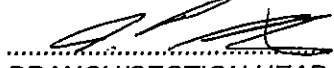
TITLE and LEVEL	POSITION No	CATEGORY	NUMBER
Senior Electrical and ITS Technology Engineer	SC LEVEL 3	Salaried, Wages	1
Electrical and ITS Technology Engineer	SC LEVEL 2		1
TOTAL			2

## SELECTION CRITERIA – SHOULD BE ADDRESSED IN THE CONTEXT OF THE ROLE


- A Degree in Electrical Engineering, or Electronic Engineering, or Systems Engineering.
- Comprehensive skill, knowledge and experience in:
  - electrical and ITS design and standards, installation, testing and commissioning
  - defining engineering requirements into service documentation and manuals for electrical and ITS assets
  - electrical and ITS applications, solutions and data systems
  - standards, regulations, and best practices in the field of electrical and ITS technology
  - managing financial, technological, physical and other resources within agreed allocations to meet agreed outcomes
  - managing employee behaviour, performance and development
  - building and enhancing stakeholder relationships
- Knowledge of:
  - innovating and implementing new technologies within the ITS domain
  - policies and practices related to Work Health and Safety (WHS) in particular for work with electrical infrastructure, and on EEO, diversity and equity
- Possession of a current Western Australian 'C' or 'C-A' Class (car) motor vehicle drivers' licence or an approved equivalent.

## CERTIFICATION


1. The details contained in this Job Role Statement have been reviewed and conform to Main Roads guidelines.

SIGNATURE  DATE 16/09/24  
BRANCH/SECTION HEAD

2. The details contained in this document are an accurate statement of the duties, responsibilities and other requirements of the position

SIGNATURE  DATE 10/12/24  
GENERAL MANAGER NETWORK MANAGEMENT  
AND DELIVERY

3. The details contained in this document have been reviewed and conform to Main Roads guidelines.

SIGNATURE  DATE 10/12/24  
EXECUTIVE DIRECTOR HUMAN RESOURCES