

# ROADS AND MARITIME SERVICES (RMS)

## QA SPECIFICATION TS200

### REGISTER OF ITS FIELD EQUIPMENT

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#### REVISION REGISTER

Ed/Rev Number	Clause Number	Description of Revision	Authorised By	Date
Ed 1/Rev 1		First Issue.	Steven Shaw	26 Aug 14
Ed 1/Rev 2	Annex A	Corrected supplier for PAT DAW 100.	A Mehaffey	02 Oct 14
Ed 1/Rev 3	Annex A	Added approved AEI LED Lanterns. Removed prototype "FCG-VMS".	A Mehaffey	27 Nov 14
Ed 1/Rev 4	Annex A	Aligned with "TES-REG-001".	A Mehaffey	12 Mar 15
Ed 1/Rev 5	Various	Clarifications to "OEM" status. Multiple Updates to Annex A.	A Mehaffey	11 Aug 15
Ed 1/Rev 6	Various	Multiple Updates to Annex A.	A Mehaffey	02 Sep 16
Ed 2/Rev 1	Various	Significant changes; New approval classes replace "Compliant" and "OEM". Multiple Updates to Annex A.	A Mehaffey	29 Sep 16
Ed 2/Rev 2	Various	Approver becomes General Manager ITS or delegate (title/role changes in RMS).	S Shaw	21 Jun 17
Ed 2/Rev 3	Various	Significant changes; removal of "provisional" classification due to misuse. Multiple Updates to Annex A.	S Kindleysides	23 Mar 18
Ed 2/Rev 4	Various	Editorial change in use of shall. Updates to Annex A. Minor style changes.	S Kindleysides	04 Jul 18

<b>Ed/Rev Number</b>	<b>Clause Number</b>	<b>Description of Revision</b>	<b>Authorised By</b>	<b>Date</b>
Ed 2/Rev 5	Various	Editorial and formatting fixes.	S Kindleysides	23 Jul 18
Ed 2/Rev 6	Annex A	Updates to Annex A.	S Kindleysides	31 Aug 18



# REGISTER OF ITS FIELD EQUIPMENT

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IC-QA-TS200

VERSION FOR: All Supply of ITS Devices to RMS
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## FOREWORD

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### REVISIONS TO PREVIOUS VERSION

This document has been revised from Specification RMS TS200 Edition 2 Revision 5.

### PROJECT SPECIFIC CHANGES

Project specific changes are **not allowed** to this Register.

This Register of ITS Field Equipment should only be changed by RMS Director – Intelligent Transport Systems or delegate.

Projects that are nominally required to supply ITS Field Equipment that are currently not listed within this Register must obtain approval from RMS (Director ITS or delegate) before using such equipment, as outlined in RMS TS202.

Requests for clarifications, re-issue, or other questions regarding this Register should be directed to: [ITShelpdesk@rms.nsw.gov.au](mailto:ITShelpdesk@rms.nsw.gov.au)

# RMS QA SPECIFICATION TS200

## REGISTER OF ITS FIELD EQUIPMENT

### 1 GENERAL

#### 1.1 SCOPE

Transport for NSW (TfNSW) and Roads and Maritime Services (RMS) have deployed a large variety of Intelligent Transport Systems (ITS) field equipment throughout the NSW road network to enable the operation of Intelligent Transport Systems.

This specification is intended to assist RMS staff and service providers in their selection of ITS field equipment for new installations, as well as for the maintenance or replacement of existing equipment, by identifying acceptable suppliers of equipment currently in operation.

There are two (2) categories of ITS field equipment suitable for supply by contractors:

- **“Type Approved”** ITS field equipment (Clause 2.1.1)
- **“Acceptable”** ITS field equipment (Clause 2.1.2)

These categories are defined in detail in Clause 2 below.

Items excluded from the scope of this register include:

- RMS approved hardware and mounting structures supporting ITS Equipment installation (other than for Traffic Control Sites).
- Supporting ITS power and communications equipment (where not otherwise specified).

The hardware elements are generally either identified in detailed RMS Technical Specifications, shown within standard RMS drawings, or are sourced from nominated suppliers of ITS field equipment.

In all cases, supplied ITS field equipment and all associated devices must be suitable for their required purpose and installation environment.

#### 1.2 STRUCTURE OF THE SPECIFICATION

This Specification includes a series of annexures that detail additional requirements.

##### 1.2.1 Project Specific Requirements

All projects must select ITS field equipment from the Register as shown in Annexure TS200/A, or seek approval from RMS (Director ITS or delegate) before using unlisted equipment, as outlined in RMS TS202. Project specific changes to this Register are **not allowed**.

##### 1.2.2 Reference Documents

Standards, specifications and test methods are referred to in abbreviated form (e.g. AS 2350). For convenience, the full titles are given in Annexure TS200/M.

## 1.3 DEFINITIONS AND ABBREVIATIONS

### 1.3.1 Definitions

The terms “you” and “your” mean “the Contractor” and “the Contractor’s” respectively.

The following definitions are applicable to this Specification:

<b>Intelligent Transport System (ITS)</b>	An integrated technology solution using computer-based control systems which communicate with field devices (at one or more sites) to provide a functional outcome designed to improve journeys through the transport network.
<b>ITS Field Equipment</b>	ITS Equipment or Devices supporting the required functionality of an Intelligent Transport System, associated with a nominated ITS Field Site.
<b>ITS Field Site</b>	Nominated location of ITS Equipment, as shown on project plans and as required site for installation of devices.
<b>Director ITS</b>	RMS representative responsible for approvals over design documentations and additions to this Register.
<b>ITS REGISTER</b>	The listing of ITS Equipment suitable for supply to RMS via maintenance contractors and projects, located in Annexure TS200/A of this document.

### 1.3.2 Abbreviations

The following abbreviations apply to this Specification:

<b>ITS</b>	Intelligent Transport Systems
<b>RMS</b>	Roads and Maritime Services
<b>TfNSW</b>	Transport for New South Wales

## 2 REGISTER OF ITS FIELD EQUIPMENT

### 2.1 OVERVIEW

#### 2.1.1 General

There are two (2) categories of ITS field equipment available suitable for supply by contractors:

- **“Type Approved”** ITS field equipment – evaluated as compliant to RMS specifications and supplied with an awarded RMS Type Approval Certification Number.
- **“Acceptable”** ITS field equipment – evaluated by RMS and considered acceptable for typical intended use.

Irrespective of any technical approval bestowed herein, as the ongoing maintenance is arranged by others, in all cases equipment that is used on the Road Network must also gain acceptance from Asset Manager, Network Sydney. This acceptance is twofold, firstly that financial resources have been allocated and secondly that requisite maintenance facilities have been identified.



There is a further category of ITS field equipment, “Legacy”, which is **not** suitable for general supply.

This register is not intended to replace the need for projects and ITS maintainers to ensure that their ITS equipment or systems operate in compliance with RMS specifications, nor does nomination in this register imply that all devices nominated are specifically compliant to current RMS specifications.

From a contractual supply perspective all ITS field equipment listed in TS200/Annexure A of this document may be considered as “RMS Approved”, as long as the supply conditions applied to their listed approval classification can be proven to be met (and demonstrated). The purchaser must ensure that the installation follows manufacturer and/or RMS requirements. ITS Branch should be used to provide technical advice and guidance on integration with RMS’ monitoring systems.

The RMS process for general evaluation of ITS Devices (and associated equipment) is described in specification RMS TS201, which also establishes the applicant gateway via the [ITS Helpdesk](#).

The process for evaluation of ITS solutions proposed for supply by projects (potentially incorporating supply of equipment neither approved nor acceptable) is described in specification RMS TS202. Where a project identifies, within an ITS solution, the use of equipment not listed herein, approval for the project should be obtained through the TS202 process.

### **2.1.2 “Type Approved” ITS Equipment**

Type Approval is the highest level of RMS validation for supply of ITS Equipment, and is typically associated with safety-related systems and functions.

Type Approved ITS Equipment must be submitted by the manufacturer for detailed analysis and review by RMS ITS Engineers. The technical review shall incorporate review of independent test reports, break-down examinations of sample equipment, and extensive field trials.

This detailed review is to ensure that the ITS Equipment is not only compliant with the associated RMS specification(s), but also designed to be reliable and to operate correctly with the host ITS.

After detailed review, a “Type Approval Certification Number” is awarded to the manufacturer, and devices must only be supplied with documented proof of RMS “Type Approval Certification”.

An example of Type Approved ITS Equipment within this document is:

- (i) Traffic Signal Controller for traffic lights at intersections (e.g. Tyco Eclipse).

### **2.1.3 “Acceptable” ITS Equipment**

The mid-level approval category is “Acceptable” that identifies ITS equipment that RMS deems acceptable for typical use.

Information submitted by the manufacturer/supplier shall be reviewed by RMS to determine if the functional objectives of the ITS device are demonstrated for typical use. Other information sources may also be used by RMS. Such information includes:

- (a) Compliance with mandatory regulatory requirements (Safety, EMC), as applicable.
- (b) Compliance with specifications or parts thereof, Australian or International, as relevant.
- (c) Information on prior use/installations.

If deemed necessary RMS may require the manufacturer/supplier to install a trial site/s or system for evaluation by RMS prior to RMS awarding approval for the nominated equipment.

A system integration test may also be required to validate correct operation with specific ITS host systems, if relevant to the equipment type.

This approval category should be used for ITS equipment for which RMS does not currently have an equipment specification, but where there is either an appropriate Australian or International Standard.

An example of “Acceptable” ITS Equipment within this document is:

- (i) Video Surveillance Camera Site equipment “Accepted” as equivalent to TS106 default supply.

#### **2.1.4 “Legacy” ITS Equipment**

“Legacy” ITS field equipment is a level of RMS classification and is not considered suitable for supply.

A listing of “Legacy” equipment is only available through the ITS Help Desk and must **not** be provided to tenderers for RMS works.

“Legacy” equipment need not be removed from the field but should be replaced with “Approved” or “Acceptable” ITS equipment on site/system reconstruction, major upgrade or unrepairable failure.

A listing of field equipment as “Legacy” may indicate that the field equipment:

- (a) Was compatible with a prior ITS Host System, but may not suit current systems, or has not been evaluated to confirm as compatible with the current systems.
- (b) Was compliant with prior specifications, but may not be compliant with current specifications such that usage may be limited to maintenance of existing ITS field sites.
- (c) Is compliant with current specifications, but has been replaced by the manufacturer/supplier with an updated model. The item listed may not be actively supported by the manufacturer/supplier.

**ANNEXURE TS200/A – ITS FIELD EQUIPMENT REGISTER****A1 ADAPTIVE TRAFFIC CONTROL****A1.1 Traffic Signal Controller**

Supplier	Type	Model	Software	Category
ATC	<b>Housing – Ground</b>	ATSC4	n/a	Type Approved
	<b>Logic Rack:</b>		n/a	Type Approved
	Conflict Monitor	TC400-36-0GC	2013-07-V2.05	Type Approved
	Logic Processor Module	TC400-045-0HD	2014-06-V1.05	Type Approved
	Main Processing Daughter Board	TC400-53 Version 1.8 (VC6) Version 8.4 (VC5)	2014-06-V1.05 2010-08-V1.02	Type Approved
	External Interface Module	TC400-065-0I	2016-05-V2.01	Type Approved
	Vehicle Detector Module	TC416-080-AB	2012-11-V1.06	Type Approved
	Output Module	TC400-040-0JD	2013-05-V1.09	Type Approved
	Output Module (NextGen)	TC400-240-0BB	2011-07-V1.08	Type Approved
	Power Supply Module	TC400-025-0JA	2013-07-V2.05	Type Approved
	Special Facility Module	TC400-055-0A	2014-08-V1.05	Type Approved
	Switch Board Module	TC400-067-0C	2016-05-V2.01	Type Approved
	<b>Top Hat</b>	n/a	n/a	Acceptable
QTC	<b>Housing – Ground</b>	Hadron	n/a	Type Approved
	<b>Logic Rack:</b>	LR16 orLR24	n/a	Type Approved
	Power Supply Module	PSM100	n/a	Type Approved
	Loop/Input Module	LIM1616DW	Ver 3.65	Type Approved
	Signal Group Module	SGM524	Ver 4.32	Type Approved
	Command Module	CM3264	Ver 1.088N (VC5)	Type Approved
	Conflict Monitor	n/a	QTC V3.0	Type Approved
	<b>Top Hat</b>	n/a	n/a	Acceptable

Supplier	Type	Model	Software	Category
Tyco	Housing – Ground	EC1	n/a	Type Approved
	Housing – Post	EA1	n/a	Type Approved
	<b>Logic Rack:</b>		n/a	Type Approved
	Power Supply Module	PSM1 V8	Ver 2.09.0913	Type Approved
	Lamp Control Module	LCM8 V10	Ver 2.18.2564	Type Approved
	Loop Detector Module	LDM416 V9	Ver 1.10.0914	Type Approved
	Central Processor Module	CPM1a V18 Bootstrap Traffic Manager	Ver 1.090762 Ver 2.51.0651	Type Approved
	<b>Top Hat</b>	n/a	n/a	Acceptable

### A1.2 Traffic Signal Controller – Communications Modem

Supplier	Model / Type	Software	Category
Micro Connect	DIAL LCM ( <i>PSTN</i> )	V1.04b	Type Approved
Dataplex	DPX 213 iPS ( <i>PSTN</i> )	V1.04	Type Approved
	DPX-3890-01 ( <i>8-port Server – PSTN</i> )	VC.14e	Type Approved

### A1.3 Traffic Signal Site – Portable Traffic Signals

Supplier	Model / Type	Software	Category
A1 Roadlines	CS-200 CS-400 PTC-1000	V1.05 V4.01.02 V2.03	Type Approved
Aldridge Electrical Industries	CS-200	V1.05	Type Approved
Data Signs	PTL-300	02.02.1	Type Approved
Bartco	BTLC-100	TLC-1.0.1-030	Type Approved

## A1.4 Traffic Signal Lantern

Supplier	Model / Type	Number	Category
Aldridge Traffic Systems	LED 200mm: Roundel (RYG) Arrow (RYG) Pedestrian (W, DW) Bicycle (RG) Bus (RY, White) 300mm: Roundel (RYG) Arrow (RYG)	RA453 RA453A RL552 RA452C RA453B  RA983 RA983A	Type Approved
Aldridge Electrical Industries	LED 200mm: Roundel (RYG) Arrow (RYG) Pedestrian (W, DW) Bicycle (RG) 3 Aspect Bus R /Y/ White 3 Aspect 'T' R /Y /White	RA453 RA453AL RA542L	Type Approved
Braums	LED 200mm: 2 Aspect YA/ GA 2 Aspect RA/ YA 2 Aspect RA/ YA/ GA 3 Aspect R/ Y/ GA 3 Aspect R/ Y/ G 4 Aspect R/ Y/ G/ GA 4 Aspect R/ Y/ G/ RA 1 Aspect Bus White 3 Aspect Bus R /Y/ White 1 Aspect 'T' White 3 Aspect 'T' R /Y /White 1 Aspect 'E' White 2 Aspect Pedestrian W/ DW 2 Aspect Cycle RC/ GC 3 Aspect Cycle R/ Y/ G 300mm: 2 Aspect YA/ GA 2 Aspect RA/ YA 3 Aspect RA/ YA/ GA 3 Aspect R/ Y/ GA 3 Aspect R/ Y/ G 4 Aspect R/ Y/ G/ GA 4 Aspect R/ Y/ G/ RA 1 Aspect Bus White 3 Aspect Bus R/ Y/ White 2 Aspect Cross R/ White	BTLAA22YGN BTLAA22RYN BTLAA23N BTLAA23GAN BTLAV23N BTLAA24GAN BTLAA24RAN BTLAB21N BTLAB23N BTLAT21N BTLAT23N BTLAE21N BTLAP22N BTLAC22N BTLAC23N  BTLAA32YGN BTLAA32RYN BTLAA33N BTLAA33GAN BTLAV33N BTLAA34GAN BTLAA34RAN BTLAB31N BTLAB33N BTLAX32N	Type Approved

Supplier	Model / Type	Number	Category
Tyco	LED 200mm: Roundel (RYG) Arrow (RYG) Pedestrian (W,DW) Bicycle (RYG) Bus (RY,White) 300mm: Roundel (RYG) Arrow (RYG)		Type Approved

**Legend:**

RYG: Red, Yellow, Green

xA: arrow aspect of colour x

W, DW: Walk, Don't Walk

**A1.5 Traffic Signal Lantern – Target Boards**

Supplier	Model / Type	Category
Aldridge Traffic Systems	Target Boards, Single / Dual 3 aspects 200mm/300mm	Acceptable
Aldridge Electrical Industries	Target Board, Single / Dual 3 aspects (200mm)	Acceptable
Braums	Target Board, Single / Dual 3 aspects 200mm/300mm	Acceptable
Tyco	Target Boards, Single / Dual 3 aspects 200mm/300mm	Acceptable

**A1.6 Traffic Signal Lantern – Special Body**

Supplier	Model / Type	Category
Aldridge Electrical Industries	200mm body - 1 & 4 aspects	Type Approved
Aldridge Traffic Systems	200mm / 300mm body - 1 & 4 aspect	Type Approved
Braums	200mm /300mm body - 1 & 4 aspects	Type Approved
Tyco	200mm / 300mm body - 1 & 4 aspect	Type Approved

**A1.7 Traffic Signal Site – Posts & Mast Arms**

<b>Supplier</b>	<b>Model / Type</b>	<b>Category</b>
Hayman Industries	Post Type 2-7, and 9-13, Offset and Shallow Type 2 base plate	Acceptable
Wieland Engineering	Post Type 2-7, and 9-13, Offset and Shallow Type 2 base plate	Acceptable
Ingal EPS	Post Type 5 only	Acceptable

**A1.8 Traffic Signal Site – Top Assembly and Low Mounting Bracket**

<b>Supplier</b>	<b>Model / Type</b>	<b>Category</b>
Aldridge Electrical Industries	Top assembly, Low mounting bracket, and associated hardware	Acceptable
Aldridge Traffic Systems	Top assembly, Low mounting bracket, and associated hardware	Acceptable
Braums	Top assembly, Low mounting bracket, and associated hardware	Acceptable
CNJ Electrical Services	Top assembly, Low mounting bracket, and associated hardware	Acceptable
Tyco	Top assembly, Low mounting bracket, and associated hardware	Acceptable

**A1.9 Traffic Signal Site – Audio Tactile Units**

<b>Supplier</b>	<b>Model / Type</b>	<b>Software</b>	<b>Category</b>
Aldridge Electrical Industries	Driver Card & Housing – CW45-5 Driver Module ATDM-E5	V5	Type Approved Type Approved
Aldridge Traffic Systems	Driver Card & Housing – CW45-7/ATV 2V1	004	Type Approved
	Housing – AT 200	n/a	Type Approved
	Housing – CW45-6	n/a	Type Approved
Braums	Driver Card & Housing – BAT1001	015-TS-100	Type Approved

**A1.10 Traffic Signal Site – Push Button Assembly**

<b>Supplier</b>	<b>Product</b>	<b>Model</b>	<b>Category</b>
Aldridge Electrical Industries	Push-Button with Transducer	CW257	Type Approved
Aldridge Traffic Systems	Push-Button with Transducer	CW255	Type Approved
Braums	Push-Button with Transducer: Single arrow Double arrow	BPB1001 BPN003	Type Approved

**A1.11 Traffic Signal Site – Pit Covers and Frames**

Supplier	Model / Type	Category
ACO	Pit Covers/frames	Acceptable
Durham	Pit Covers/frames	Acceptable
<b>BCP Precast</b>	Pit Covers/frames	Acceptable
Mascot Engineering	Pit Covers/frames	Acceptable

**A1.12 Traffic Signal Site – Pre-formed and Pre-fabricated Loops**

Supplier	Type	Model	Category
Central Infrastructure Sydney	CI Sydney stick-down pre-fabricated loops		Acceptable
Juvana	Patriot (pre-fabricated, enclosed tube)	CG16MM Series	Acceptable
		CG9.5MM Series	Acceptable
PJ's Loop Service Pty Ltd	Thermapp (pre- formed stick down)		Acceptable
Traffic Tech	Ezy Loops (pre- formed, stick down)	SS-EL	Acceptable

**A1.13 Traffic Signal Site – Inductive Loop, Other Cables, Cable Accessories and Loop Sealant**

Supplier	Model / Type	Category
Bambach	Multi-core – 29 Core PN17810 Loop Detector Cable – PN46005 Loop Feeder – 1 Pair PN46000 Loop Feeder – 3 Pair PN46015 Loop Feeder – 4 Pair PN46016	Acceptable
Cable Accessories	Joining Kits and Crimps	Acceptable
Channell	Crimps and Terminals	Acceptable
Gripset Industries	Gripset B26 (Loop Sealant)	Acceptable
Madision Technology	Traffic Cable – 29 Core MCC294MMTRAFFICUV Loop Detector Cable – MC7051XLPE1000 Loop Feeder – 1 Pair MC7052J FSTD500 Loop Feeder – 3 Pair MC7056JFSTD500 Loop Feeder – 4 Pair MC7058JFSTD500 Loop Feeder – 5 Pair MC70510JFSTD500 Loop Feeder – 6 Pair MC70512JFSTD500	Acceptable
Olex	Loop, Loop Feeder, and 29 core cable	Acceptable
Scott Technology	Scotec (Loop Sealant)	Acceptable



**A1.14 Traffic Signal Site – Terminal Boxes (Mast Arm / Wooden Pole)**

Supplier	Model / Type	Category
Aldridge Traffic Systems	Terminal Boxes	Acceptable
Aldridge Electrical Industries	Terminal Boxes	Acceptable
Braums	Terminal Box (for Mast Arms)	Acceptable
CNJ Electrical Services	Terminal Box (for Mast Arms)	Acceptable

**A1.15 Traffic Signal Site – PJ Box**

Supplier	Model / Type	Category
Powercast	PJ Box	Acceptable

**A1.16 Traffic Signal Site – Fuse Box**

Supplier	Model / Type	Category
Aldridge Traffic Systems	Post-Mounted Fuse Box	Acceptable
Braums	Post-Mounted Fuse Box	Acceptable
Reagle	Underground Fuse Box	Acceptable

**A1.17 Traffic Signal Site – Facility Key**

Supplier	Model / Type	Category
Fountain Line	Facility Key	Acceptable

**A2 TIDAL LANE CONTROL****A2.1 Lane Control Equipment**

Supplier	Type	Model	Category
ESDR Electronics	SERNIS Unidirectional In-Pavement Light (white)	SR-45-WW-1G (1 gland)	Acceptable
		SR-45-WW-2G (2 gland)	Acceptable

**A3 ELECTRONIC MESSAGE SIGNS****A3.1 Monochrome VMS**

Supplier	Model / Type	Category
No listing		

**A3.2 VSLs**

Supplier	Model / Type	Category
No listing		

**A3.3 Vehicle Activated Warning Sign**

Supplier	Model / Type	Category
No listing		

**A3.4 Changeable Message Signs**

Supplier	Model / Type	Category
No listing		

**A3.5 Flashing Arrow Signs**

Supplier	Model / Type	Controller Model Number	Software	Category
A1 Roadlines	Type A – Single sided	QS-AB04	Controller – 0721 / Light Sensor – 8169	Type Approved
	Type A – Double sided	QS-AB04D	Controller – 0721 / Light Sensor – 8169	Type Approved
	Type B – Single sided	QS-AB03	Controller – 5753 / Light Sensor - 8169	Type Approved
	Type B – Double sided	QS-AB03D	Controller – 5753 / Light Sensor - 8169	Type Approved
	Type C - Trailer	QS-AB03	Controller – 0721 / Light Sensor - 8169	Type Approved
Arrow Emergency Systems	Type A	TYPE A/B	V2.5	Type Approved
	Type B	TYPE A/B	V2.5	Type Approved
Aldridge Traffic Systems	Type B	RA7001AC Type 1 Rotary Switch	V3.05	Type Approved
	Type B	RA7001AC Type 2 Keypad	V3.05	Type Approved
Data Signs	Type C	43020	01.00.03	Type Approved
Global Traffic Equipment	Type B – Single sided	AC4S (GT7027)	V1.2	Type Approved
	Type B – Double sided	AC4S (GT7028)	V1.2	Type Approved
J1-LED Intelligent Transport Systems	Type A JL-D-0128	JL-D-0128	JLD0128124	Type Approved
Magnum MFG	VMAB-BS Type B	VMAB-BSC (TYPE B)	FO_M8_DIRV1.0.4	Type Approved

<b>Supplier</b>	<b>Model / Type</b>	<b>Controller Model Number</b>	<b>Software</b>	<b>Category</b>
Road Runner Parts	Type A	Switch Panel 460100 Rev C	V104	Type Approved
	Type B	Switch Panel 460100 Rev C	V104	Type Approved
Traffic Signals Sales & Service	Type A	TYPE A/B	-	Type Approved
	Type B	TYPE A/B	-	Type Approved

**A3.6 Colour VMS**

<b>Supplier</b>	<b>Model / Type</b>	<b>Category</b>
No listing		

**A3.7 ISLUS**

<b>Supplier</b>	<b>Model / Type</b>	<b>Category</b>
No listing		

**A3.8 Regulatory and Warning Sign**

<b>Supplier</b>	<b>Model / Type</b>	<b>Category</b>
No listing		

**A4 TRAFFIC DETECTION AND MONITORING****A4.1 Vehicle Classifiers and Counters**

<b>Supplier</b>	<b>Model / Type</b>	<b>Category</b>
CEOS	TIRTL (IR Smart Classifier)	Acceptable
Excel Technology Group	XL 500 / 1000 LL / LPL / PLP (Inductive Loop Classifier)	Acceptable
Nortech	IR100 (Inductive Loop Classifier)	Acceptable
	IR200 (Inductive Loop Classifier)	Acceptable
TCS Products	Trafficorder Tube Counter	Acceptable

**A4.2 Over-speed Detection**

<b>Supplier</b>	<b>Model / Type</b>	<b>Category</b>
No listing		

**A4.3 Vehicle to Infrastructure (Travel Time)**

Supplier	Model / Type	Category
RMS Intelligent Transport Systems	Efkon AG - FZ 58058 uW Tolling Tag Interrogator (Travel Time)	Acceptable

**A4.4 Traffic Detector/Traffic Flow Monitor**

Supplier	Model / Type	Category
Nortech	IR100 (Inductive Loop)	Acceptable
	IR200 (Inductive Loop)	Acceptable

**A4.5 Weigh in Motion Site**

Supplier	Model / Type	Category
No listing		

**A5 TRAFFIC INCIDENT VERIFICATION****A5.1 TS106 – Video Surveillance Cameras – IP Digitised Analogue Video – Type A**

Manufacturer	Model / Type	Category
No listing		

**A5.2 TS106 – Video Surveillance Cameras – IP Digitised Analogue Video – Type B**

Manufacturer	Model / Type	Category
No listing		

**A5.3 TS106 – Video Surveillance Cameras – Native IP Digital Video – Type A**

Manufacturer	Model / Type	Category
Bosch	IP Camera PoE (Sand Finish) MIC-7502-Z30W	Acceptable

**A5.4 TS106 – Video Surveillance Cameras – Native IP Digital Video – Type B**

Manufacturer	Model / Type	Category
Axis	Q1615 MkII	Acceptable
Vivotek	Speed dome camera SD9366-EH	Acceptable

**A5.5 TS106 – Video Surveillance Cameras – Accessories**

<b>Supplier</b>	<b>Model / Type</b>	<b>Category</b>
Bosch	DCA Camera Mount- MIC-DCA-HW	Acceptable
Advantech	PoE Injector EKI-2711hpi-AE	Acceptable
Microsemi	PoE Injector PD-9501GI	Acceptable
Delta	120W 48VDC DIN Power Supply	Acceptable
Novaris	Surge Suppressor (Sacrificial) RJ45 Cat6	Acceptable
Ingal EPS	CCTV Pole / Mast	Acceptable
Camera and Lighting Lowering Systems	CCTV Pole / Mast Lowering Device	Acceptable

**A6 OTHER APPROVED DEVICES****A6.1 Outdoor Equipment Cabinets**

<b>Manufacturer</b>	<b>Model / Type</b>	<b>Category</b>
Boval Engineering	Standard Roadside Cabinet	Acceptable
Mercury Innovation	Hardened Roadside Cabinet High Security with Thermal Management (enforcement grade /double skin)	Acceptable

**A6.2 Street Lighting – LED Luminaires**

Utilisation of any luminaire requires approval of the overarching Street Lighting Design Isolux plan.

<b>Supplier</b>	<b>Name</b>	<b>Optics/Visor</b>	<b>Wattage</b>	<b>Category</b>
Aldridge Traffic Systems	V-LED	T5N7PBP	85,175, 265	Accepted
Gerard Lighting	RoadLED Generation 2	SCO	80,175, 275	Accepted
		AERO	80,175, 275	Accepted

**Note:** A like for like replacement guide of RMS acceptable LED luminaires is available on request from the ITS Helpdesk.

**A6.3 Road Weather Information**

<b>Supplier</b>	<b>Model / Type</b>	<b>Category</b>
Manly Hydraulic	Flood Warning Sensor	Acceptable

**A6.4 Emergency Telephones**

<b>Supplier</b>	<b>Model / Type</b>	<b>Category</b>
KJ Precision	Dritel 3G / 4G, PSTN - Solar/Mains power	Acceptable
RMS – ITS Manufacturing	3G / 4G, PSTN - Solar/Mains power	Acceptable
Dallas Delta	3G / 4G, PSTN - Solar/Mains power	Acceptable

**ANNEXURE TS200/B – ITS EQUIPMENT: SUPPLIER DETAILS**

<b>Supplier</b>	<b>Address</b>	<b>Phone</b>
<b>A1 Roadlines Pty Ltd</b>	89 Rushdale Street, Knoxfield VIC 3180	03 9765 9400
<b>ACO</b>	134-140 Old Bathurst Road, Emu Plains NSW 2750	1300 765 226
<b>Aldridge Electrical Industries Pty Ltd</b>	U10/16 Sir Joseph Banks Drive, Kurnell NSW 2231	02 9540 9966
<b>Aldridge Traffic Controllers (BRAUMS)</b>	Unit N, 10-16 South St, Rydalmere NSW 2116	02 8846 5599
<b>Aldridge Traffic Systems</b>	12 – 14 Leeds Street, Rhodes NSW 2138	02 9736 3677
<b>Applied Traffic Pty Ltd</b>	6/42 Smith Street, Capalaba QLD 4157	07 3245 5505
<b>Armitage Group Pty Ltd</b>	31/65 Marigold Street, Revesby NSW 2212	02 9771 2364
<b>ARRB</b>	500 Burwood Hwy, Vermont South VIC 3133	03 9881 1555
<b>Arrow Emergency Systems</b>	17 Bailey Ct, Brendale QLD 4500	07 3881 3302
<b>Bambach Wires &amp; Cables</b>	102 Old Pittwater Road, Brookvale NSW 2100	02 9938 5622
<b>Bartco Visual Information Systems</b>	7 Westside Avenue, Port Melbourne VIC 3207	1300 306 106
<b>BCP Precast</b>	4 Field Close, Moorebank NSW 2170	02 9612 5800
<b>BOSCH</b>		02 9842-4759
<b>Boval Engineering</b>	13 Coombes Dr, Penrith NSW 2750	02 4728 4909
<b>BRAUMS (ATC)</b>	Unit N, 10-16 South St, Rydalmere NSW 2116	02 8846 5599
<b>Cables Accessories (Australia) Pty Ltd</b>	8 Distribution Place, Seven Hills NSW 2147	13 31 22
<b>Camera and Lighting Lowering Systems</b>	835 Industrial Drive, Elmhurst, IL 60126, USA	+1 708 681 4330
<b>Central Infrastructure Sydney</b>	98 Stahls Rd, Oakville, NSW 2765	0415 346 190
<b>Central Weighing Australasia Pty Ltd</b>	PO Box 682, Mooloolaba, QLD 4557	07 5444 2910
<b>CEOS Pty Ltd</b>	3/17 Burgundy St, Heidelberg, VIC 3084	03 9458 4955
<b>Ceva Logistics</b>	Unit3 / 9 Ferndell Street, Guildford NSW	1300 363 382
<b>Channell (previously Egerton)</b>	3 Healey Circuit, Huntingwood NSW 2148	02 8884 4111
<b>Clearview Traffic / Astucia Australia</b>	28 Freeman Street, Campbellfield VIC 3061	0404 004 162
<b>CNJ Electrical Services</b>	8 Enterprise Drive, Glendenning NSW 2761	02 9625 6822
<b>Compusign Pty Ltd</b>	8/10 Clarice Road, Box Hill VIC 3128	03 9890 3400
<b>Controlware</b>		02 9765 8222
<b>Dallas Delta Corporation Pty Ltd</b>	102 Albert Street, East Brunswick VIC 3057	03 9387 7388

Supplier	Address	Phone
<b>Data Signs Pty Ltd</b>	5 Grace Court, Sunshine West VIC 3020	03 9312 2177
<b>Dataplex Pty Ltd</b>	1 Rivett Rd, North Ryde NSW 2113	02 9869 2500
<b>Durham</b>	27 Curtis Road, Mulgrave NSW 2756	02 4587 7011
<b>ELWC Australia</b>	PO Box142, Castle Hill NSW 1765	02 9899 3468
<b>ESDR Electronics</b>	Unit 7/30 Perry St, Matraville	02 9700 1050
<b>Excel Technology Group</b>	18 Staple Street, Seventeen Mile Rocks, QLD 4073	07 3279 4322
<b>Fountain Line</b>	3 Production Ave, Kogarah NSW 2217	02 9587 0232
<b>Gerard Lighting Pty Ltd</b>	96-112 Gow Street, Padstow NSW 2211	1300 799 300
<b>Global Traffic Equipment Pty Ltd (Giga Signs)</b>	27 Harrington Street, Arundel QLD 4214	07 5631 4444
<b>Gripset Industries Pty Ltd</b>	30 Park Ave, Woodville North SA 5012	1800 650 435
<b>Hayman Industries</b>	119 Airds Road, Minto NSW 2566	02 8796 2600
<b>Ingal EPS</b>	2 Caruso Court, Maddington WA 6109	08 9493 9234
<b>Intelligent Transport Systems (RMS)</b>	Australian Technology Park, Eveleigh, NSW	<a href="#">ITSHelpdesk</a>
<b>J1-LED Intelligent Transport Systems Pty Ltd</b>	10 Production Street, Beenleigh Qld 4207	07 3807 6272
<b>Juvana Pty Ltd</b>	PO Box 5522, Brendale QLD 4500	07 3203 6556
<b>Kenshaw Electrical Pty Ltd</b>	9 Belford Place, Cardiff NSW 2285	02 4903 1500
<b>Kistler Instruments Australia Pty Ltd</b>	U1.23 L1, 202 Jells Rd, Wheelers Hill VIC 3150	03 9560 5055
<b>KJ Precision Engineering</b>	16/388 Newman Rd, Geebung QLD 4034	07 3265 3240
<b>Logix Engineering</b>	28 Spine Street, Summer Park QLD 4074	0434 034 703
<b>Madison Technology Cables</b>	149 Beaconsfield Street, Silverwater NSW 2128	02 8756 4214 1800 788889
<b>Magnetic Automation Pty Ltd</b>	U1, 24 Prince William Drv, Seven Hills NSW 2147	02 9421 8800
<b>Magnum MFG Pty Ltd</b>	45 Holland St, Northgate QLD 4013	07 3266 1000
<b>Manly Hydraulics Laboratory</b>	110b King Street, Manly Vale NSW 2093	02 9949 0200
<b>Mascot Engineering</b>	37 Tarlington Place, Smithfield NSW 2164	1300 885 295
<b>Mercury Innovation</b>	Unit 1 179/183 Woodpark Rd, Smithfield NSW 2164	0403 997 878
<b>Micro Connect Pty Ltd</b>	22 Gardenia Place, FOREST GLEN 4556	02 8002 1987
<b>Microcom Pty Ltd (MetroCount)</b>	15 O'Connor Close, North Coogee WA 6163	08 9430 6164
<b>Navtech Radar Ltd</b>	Home Farm, Ardington, Wantage, Oxfordshire, OX12 8PD, UK	+44 (0)1235 832 419
<b>Nortech Detection Pty Ltd</b>	5/49 Frenchs Forest Rd, Frenchs Forest NSW 2086	02 8977 4047



**Register of ITS Field Equipment****TS200**

<b>Supplier</b>	<b>Address</b>	<b>Phone</b>
<b>Novaris</b>	<a href="http://www.control-logic.com.au">www.control-logic.com.au</a> <a href="mailto:info@lfsp.com.au">info@lfsp.com.au</a>	1800 557 705 0427 60 44 44
<b>Olex Cables</b>	29 Davis Road, Wetherill Park NSW 2164	1300 556 555
<b>PJ's Loop Services Pty Ltd</b>	30 Medway Road, Bringelly NSW 2556	02 4774 9747
<b>Powercast Pty Ltd</b>	27/13 Swaffham Road, Minto NSW 2566	02 8731 3301
<b>Quick Turn Circuits Pty Ltd</b>	14 Leeds Street, Rhodes NSW 2138	02 9701 9900
<b>Regal Switchboards</b>	9/28 Vore Street, Silverwater NSW 2128	02 9748 7888
<b>RMS Intelligent Transport Systems</b>	Bay 4 - L1, Australian Technology Park, Eveleigh NSW 2015	02 8396 1601
<b>RMS ITS Manufacturing</b>	129A Orchardleigh Street, Yennora NSW 2150	02 9794 4754
<b>Road Runner Parts</b>	42-44 Whyalla Place, Prestons NSW 2170	02 9607 5774
<b>RTS Constructions Aust Pty Ltd</b>	Unit 1, 2 Stoddart Road, Prospect NSW 2148	02 9636 1233
<b>SAGE Automation</b>	L1 1, 3 Richardson Place, North Ryde NSW 2113	02 9878 9600
<b>Scott Technology Pty Ltd</b>	Unit 1, 28 Lee Holm Road, St. Marys NSW 2760	02 9623 6444
<b>SICK Pty Ltd</b>	Unit 1, 17 Stanton Rd, Seven Hills NSW 2147	03 9457 0600
<b>TCS Products Pty Ltd</b>	5/24 Vore Street, Silverwater NSW 2128	1 800 506 706
<b>Traffic Control Supplies</b>	59 Moreton Street, Heathwood QLD 4110	07 3278 8022
<b>Traffic Signals Sales &amp; Service Pty Ltd</b>	133 Arcadia Road, Arcadia NSW 2159	02 9655 1307
<b>Traffic Tech</b>	2/26 Leighton Place, Hornsby NSW 2077	02 9477 7262
<b>Trantek</b>	West Ryde NSW 2114	02 9808 6166
<b>Tyco Traffic &amp; Transportation</b>	38 South Street, Rydalmere NSW 2116	02 9805 8300
<b>Wieland Engineering</b>	19 Wellington Street, Riverstone NSW 2765	02 9627 4400

**ANNEXURES TS200/C TO TS200/L – (NOT USED)**

**ANNEXURE TS200/M – REFERENCED DOCUMENTS**

**RMS Specifications**

RMS Q	Quality Management System
RMS TS201	Approval of ITS Field Equipment
RMS TS202	Project Approval of ITS Solutions for Projects
RMS TSxxx	RMS “Traffic Systems” (ITS) Specifications 001 to 299