TCG 018: 2021

Register of

ITS Approved Products

Version: 2021
Revision: A

VICTORIA State Government | Department of Transport

TCG 018 ITS Approved Products

Foreword

This specification has been developed by Department of Transport (DoT) (Roads). It is one of a number of technical specifications, and associated standard drawings, which set out the requirements for roadside ITS devices, traffic signal equipment and other electrical equipment and associated devices and control systems.

This specification is intended for use in all relevant works undertaken by or on behalf of DoT (Roads).

DoT (Roads) Standard Drawings, Specifications and Guidelines are available for downloading from the VicRoads website: https://www.vicroads.vic.gov.au/business-and-industry/technical-publications/electrical-and-intelligent-transport-systems

Specification updates. DoT specifications and associated standard drawings are subject to periodic review. To keep the specifications up to date, amendments or new editions are issued as necessary. It is therefore important for users of DoT specifications to ensure that they have the latest version and associated amendments.

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Revision History

Version	Revision	Date	Author	Description
2017	1.0	January	ITS	First release
2017	1.1	April	ITS	Update
2017	1.2	July	ITS	Update
2017	1.3	August	ITS	Update
2017	1.4	November	ITS	Update
2018	1.5	November	ITS	Update
2019	1.6	November	ITS	Update
2020	1.7	March	ITS	Update
2020	1.8	August	ITS	Update
2021	A	August	ITS	Update and reformat

Contents

SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This document provides a list of current, DoT (Roads) Approved ITS traffic signal, ITS and other on-road electrical products intended for use on various DoT (Roads) projects within the State of Victoria.

1.2 GENERAL

DoT (Roads) Product Compliance process aims to ensure that products used on DoT (Roads) projects are:

- Compliant with DoT (Roads) specifications
- Compliant with Australian Standards
- Compliant with legal, regulatory and statutory requirements
- Compatible with existing ITS systems and infrastructure

The Product Compliance process also provides:

- Efficiency and consistency in delivery
- Efficient procurement
- Reduction operating costs through consistency
- Lower system integration time and costs
- Reduced financial risk to DoT (Roads)
- Improved road safety

1.3 USE OF APPROVED PRODUCTS

Where available, only DoT (Roads) approved products shall be used on any DoT (Roads) project.

Where a new product type is being considered for use, DoT (Roads) shall be engaged to provide support and advice.

1.4 TYPES OF APPROVED PRODUCTS

The types of approval that may be granted to a product are as follows.

a) **Type Approval** is applied where there is a specific DoT (Roads) specification or Australian Standard that directly applies to the product. Products that comply with the relevant specification or Australian Standard may be issued with a Certificate of Type Approval.

b) **Product Acceptance** is applied where there is no specific DoT (Roads) specification or Australian Standard that directly applies to the product. Relevant requirements of related specifications and Australian Standards are typically applied to these types of products (e.g. EMC, environmental requirements, compatibility with existing systems, etc). Products that are considered to meet minimum requirements and have a potential benefit to DoT (Roads), may be issued with Product Acceptance.

c) **Accepted for use** is applied to products that have been reviewed and tested against a specification or technical note and found to be compatible with DoT systems and suitable for use. Devices granted 'accepted for use' have not been subjected to a full evaluation that would apply to a product submitted for formal type approval.

Unless stated otherwise for individual devices, the devices listed in this document have been Type Approved.by DoT (Roads) for use on DoT (Roads) projects within the state of Victoria.

SECTION 2 TRAFFIC SIGNAL EQUIPMENT

2.1 TRAFFIC SIGNAL CONTROLLERS

Controller:	**QTC3264 (also known as Hadron 3248**
Manufacturer:	**Aldridge Traffic Systems**
Type Approval Number:	**PA 030 162**

Version	**VC5**
Latest Hardware Related Software (HRS)	V1.089
Lantern voltage	LV
LV dimming	Voltage dimming
ELV dimming	N/A

Version	**VC6.1**
Latest Hardware Related Software (HRS)	Not approved
Lantern voltage	Not approved
LV dimming	Not approved
ELV dimming	Not approved

Version	**VC6.2**
Latest Hardware Related Software (HRS)	Not approved
Lantern voltage	Not approved
LV dimming	Not approved
ELV dimming	Not approved

Controller:	**ATCS/4**
Manufacturer:	**Aldridge Traffic Controllers**
Type Approval Number:	**PA 030 197**

Version	**VC5**
Latest Hardware Related Software (HRS)	C29V5R20S89 (29/11/2019)
Lantern voltage	LV
LV dimming	Voltage dimming
ELV dimming	N/A
XTTY Personality Module	PA 030 332

Version	**VC6.1**
Latest Hardware Related Software (HRS)	C29V6.1R20S23 (07/11/2019)
Voltage	LV / ELV
LV dimming	Voltage dimming
ELV dimming	Dim by wire

Version	**VC6.2 (1)**
Latest Hardware Related Software (HRS)	C29V6.2R20S23 (11/10/2019)
Voltage	LV / ELV
LV dimming	Voltage dimming
ELV dimming	Dim by wire

Notes

(1) At this time, the ATCS/4 V6.2 controller has been granted 'acceptance for use'. This acceptance will be upgraded to formal type approval once TfNSW formerly approves the controller.

Controller:	**Eclipse**
Manufacturer:	**Tyco**
Type Approval Number:	**PA 030 206**

Version	**VC5**
Latest Hardware Related Software (HRS) Suite 1.6.4	C24V5R20 (12/06/2014)
Lantern voltage	LV / ELV
LV dimming	Voltage dimming
ELV dimming	N/A
Eclipse EB small controller	PA 030 266

Version	**VC6.1**
Latest Hardware Related Software (HRS) Suite 2.3.5	C24V6.1R20 (17/01/2019)
Lantern voltage	LV
LV dimming	Voltage dimming
ELV dimming	Not approved

Version	**VC6.2**
Latest Hardware Related Software (HRS) Suite 2.3.5	Not approved
Lantern voltage	Not approved
LV dimming	Not approved
ELV dimming	Not approved

2.2 OTHER

Rail crossing active advanced warning system controller

Aldridge Traffic Controllers	PA 030 232

The following modem is supplied for use with DoT (Roads) traffic signal controllers as part of managed service contract.

SCATS modem

Telstra – UC-400T (supplied by Telstra under contract)	N/A

2.3 TRAFFIC SIGNAL LANTERNS

The following list of **type approved** traffic signal lanterns applies to 200mm lanterns only. For a list of controller/lantern compatibility, see the compatibility matrix in Appendix A.

Roundel

Aldridge Traffic Systems P/L – 5mm LED	PA 030 080
Tyco P/L – 5mm LED	PA 030 221
Kalington International P/L – HPSM LED	PA 030 237
Aldridge Electrical Industries – 5mm and HPSM LED	PA 030 242
Braums P/L – HPSM LED	PA 030 305
Aldridge Traffic Systems P/L – HPSM LED	PA 030 333
Tyco P/L – HPSM LED	PA 030 361

Arrow

Aldridge Traffic Systems P/L – 5mm LED	PA 030 075
Tyco P/L – 5mm LED	PA 030 222
Kalington International P/L – HPSM LED	PA 030 262
Aldridge Electrical Industries – 5mm and HPSM LED	PA 030 243
Braums P/L – HPSM LED	PA 030 306
Aldridge Traffic Systems P/L – HPSM LED	PA 030 333
Tyco P/L – HPSM LED	PA 030 361

U-Turn (U)

Aldridge Traffic Systems P/L – 5mm LED	PA 030 155
Braums P/L – HPSM LED	PA 030 326
Aldridge Electrical Industries – HPSM LED	PA 030 398

Tram (Tee)

Aldridge Traffic Systems P/L – 5mm LED	PA 030 156
Braums P/L – HPSM LED	PA 030 328
Aldridge Electrical Industries – HPSM LED	PA 030 396

Bus (B)

Aldridge Traffic Systems P/L – 5mm LED	PA 030 156
Braums P/L – HPSM LED	PA 030 328
Aldridge Electrical Industries – HPSM LED	PA 030 404

Emergency (E)

Braums P/L – HPSM LED	PA 030 330
Aldridge Electrical Industries – HPSM LED	PA 030 397

Bicycle

Aldridge Traffic Systems P/L – 5mm LED	PA 030 194
Braums P/L – HPSM LED	PA 030 318
Tyco P/L – HPSM LED	PA 030 361
Aldridge Electrical Industries – HPSM LED	PA 030 403

Pedestrian

Aldridge Traffic Systems P/L – 5mm LED	PA 030 079
Tyco P/L – 5mm LED	PA 030 223
Kalington International P/L – HPSM LED	PA 030 263
Aldridge Electrical Industries P/L – 5mm and HPSM LED	PA 030 247
Braums P/L – HPSM LED	PA 030 307
Tyco P/L – HPSM LED	PA 030 361

Pedestrian countdown timer

Aldridge Traffic Systems P/L – 5mm LED	PA 030 295

2.4 TRAFFIC SIGNAL HARDWARE

Target board

Aldridge Electrical Industries P/L - Metal	PA 030 250
Braums P/L – Metal	PA 030 311
Kalington International P/L – Metal	PA 030 339
Aldridge Traffic Systems P/L - Metal	PA 030 191

Visor

Aldridge Traffic Systems P/L – Lantern type 1, 2 and 3	N/A
Aldridge Traffic Systems P/L – Pedestrian	PA 029 5030
Tyco P/L – Lantern type 1, 2, 3 and pedestrian	PA 029 5116
Braums P/L – Lantern type 1, 2, 3 and pedestrian	PA 030 305
Kalington International P/L – Lantern type 1, 2, 3 and pedestrian	PA 030 340

Lantern mounting bracket

Aldridge Traffic Systems P/L – 2 and 4 way	N/A
Aldridge Electrical Industries P/L – 2 and 4 way	PA 030 244
Braums P/L – 2 and 4 way	PA 030 315
Tyco – 2 and 4 way	PA 030 302

Upper mounting assembly

Aldridge Traffic Systems P/L	N/A
Aldridge Electrical Industries P/L	PA 030 252
Tyco P/L	PA 030 308
Braums P/L	PA 030 323

Pedestrian detector (push button)

Aldridge Traffic Systems P/	PA 030 006
Aldridge Electrical Industries P/L	PA 030 248
Braums P/L	PA 030 322

Audio tactile

Tyco P/L – Driver	PA 029 5087
Quick Turn Circuits P/L – Driver	PA 029 5123
Aldridge Traffic Systems P/L – Driver board	PA 030 003
Aldridge Electrical Industries P/L – Driver and transducer	PA 030 253
Braums P/L – Driver and transducer	PA 030 321

2.5 TRAFFIC SIGNAL POLES

Pedestal (2A, 2B and Type C)

Northsteel P/L – 2A	PA 029 5028
Skinner Engineering P/L – 2A, 2B and Type 3	PA 029 5047
Wanbanna P/L - 2A, 2B and Type 3	PA 029 5126
Lanez Engineering P/L – 2A	PA 030 048
Lanez Engineering P/L – 2B	PA 030 049
Coslee Heavy Metal Fabricators P/L – 2A and 2B	PA 030 083
AJ Williams Group P/L – Raiser bracket for 3 aspect lantern	PA 030 100
Ingal EPS P/L – 2B	PA 030 212
Ideal Engineering Construction P/L – 2A and 2B	PA 030 287
Coslee Heavy Metal Fabricators P/L – Type 3	PA 030 411

Mast arm (MA)

Ingal EPS P/L – Standard clearance	PA 030 092
Ingal EPS P/L – Low clearance	PA 030 093
Coslee Heavy Metal Fabricators P/L -	PA 030 202

Joint use mast arm (JUMA)

Ingal EPS P/L – Standard clearance	PA 030 094
Ingal EPS P/L – Low clearance	PA 030 095
Coslee Heavy Metal Fabricators P/L	PA 030 201

Joint use pole (JUP)

Ingal EPS P/L – 8m, 11m and 13.5m	PA 030 091
Coslee Heavy Metal Fabricators P/L – 8m, 11m and 13.5m	PA 030 182

Flashing pedestrian crossing pole

Ingal EPS P/L	PA 030 200
Taperline Australia P/L	PA 030 185
Coslee Heavy Metal Fabricators P/L	PA 030 392

2.6 TRAFFIC SIGNAL CABLE

Multicore power cable

Olex Cable P/L – 51 core	PA 030 087
Olex Cable P/L – 13 core	PA 030 088
General Cable P/L – 19, 29 and 51 core	PA 030 149
Madison Technologies P/L – 13, 19, 29 and 51 core	PA 030 258
CMI Electrical Products P/L – 13, 19, 29 and 51 core	PA 030 278
Detector Loop Services P/L – 13, 19, 29 and 51 core	PA 030 270
Eltech Industries P/L – 13, 19, 29 and 51 core	PA 030 312
Electra Cables P/L – 13, 19, 29 and 51 core	PA 030 324
Bambach Wire and Cables P/L – 13, 19, 29 and 51 core	PA 030 334

SECTION 3 UPS

This section details **type approved**, stand-alone uninterruptible power supplies for use with roadside devices such as traffic signal controllers.

Uninterruptible power supplies

Aldridge Traffic Controllers	PA 030 228
CPS National	PA 030 229
Tyco	PA 030 327

SECTION 4 DETECTION

4.1 INDUCTIVE LOOPS AND ASSOCIATED CABLES

Pre-formed inductive loop

Detector Loop Services – Ezy Loop Pre-formed inductive detector loop	PA 030 064
Rose Civil – Pre-formed inductive detector loop	PA 030 245
Juvana P/L – Patriot pre-formed inductive detector loop	PA 030 358

Detector feeder cable

Olex Cable P/L – 1 pair (2 core)	PA 030 089
General Cable P/L – 1 pair (2 core)	PA 030 150
Bambach Wire and Cables P/L – 1 pair (2 core)	PA 030 216
Detector Loop Services P/L – 3 and 4 pair (6 and 8 core)	PA 030 241
Madison Technologies P/L – 1 pair (2 core)	PA 030 259
Detector Loop Services P/L – 1 pair (2 core)	PA 030 286
Eltech Industries P/L – 1 pair (2 core)	PA 030 313
Electra Cables P/L – 1 and 3 pair (2 and 6 core)	PA 030 325

Detector loop cable

General Cable P/L	PA 030 151
Bambach Wire and Cables P/L	PA 030 217
Madison Technologies P/L	PA 030 260
Eltech Industries P/L	PA 030 314
Electra Cable P/L	PA 030 325

4.2 PEDESTRIAN DETECTION

The following detectors have been **accepted for use** for detection of pedestrians at signalised pedestrian crossings.

Detector	Use
AGD P/L – AGD 326	Pedestrian on-crossing detector for PUFFIN crossings
AGD P/L – AGD 645 (pedestrian occupancy detector	Pedestrian occupancy detector for PUFFIN crossings

4.3 VEHICLE DETECTION

This section has been included for possible future use.

SECTION 5 PITS

Cable pit - 600mm

Linpac polycast P/L – corrugated pit former	PA 029 5109
Ausmar Industries P/L – pit former	PA 030 001
BVCI P/L – pit former	PA 030 284
BVCI P/L – corrugated pit former	PA 030 292
Access Covers Australia P/L – corrugated pit former	PA 030 369
Access Covers Australia P/L – Pit riser (for angled FSL's up to 20 degrees)	PA 030 413

Cable pit – 750mm

Access Covers Australia P/L – corrugated pit former	PA 030 367
Convic Australia P/L – corrugated pit former	PA 030 371

Cable pit lid and frame – 600mm

Webforge (Vic) P/L	PA 029 5124
Milnes / Gatic P/L – Concrete core infill	PA 029 5112
S.V.C. Products P/L	PA 029 5121
S.V.C. Products P/L – Concrete core infill	PA 029 5111
Gatic P/L – steel	PA 030 065
EJ (formerly Havestock) P/L – steel	PA 030 153
Hygrade Water P/L	PA 030 261
Aco Polycrete P/L	PA 030 208
BVCI P/L – Cast iron	PA 030 293
Access Covers Australia P/L – Cast iron	PA 030 230
Convic Australia P/L – Composite	PA 030 354
Access Covers Australia P/L – Cellular steel	PA 030 388

Detector pit

Linpac Polycast P/L – plastic pit and lid	PA 030 002
Gatic P/L – plastic pit, aluminium lid	PA 030 084
South Eastern Industrial Supplies P/L	PA 030 211
Hygrade Water P/L	PA 030 264
BVCI P/L – plastic pit, aluminium lid	PA 030 84A
BVCI P/L – plastic pit, cast iron lid	PA 030 281

SECTION 6 FOUNDATIONS

Rag bolt assembly for pole

M.T.M Controls (Aust) P/L – Commercial grade (Class 4.6)	PA 029 5008
Lanez Engineering P/L – Commercial grade (Class 4.6)	PA 030 046
Lanez Engineering P/L – High strength (Class 8.8)	PA 030 047
Lanez Engineering P/L	PA 030 059
South Eastern Industrial Supplies P/L – Commercial grade (Class 4.6)	PA 030 164
South Eastern Industrial Supplies P/L – High strength (Class 8.8)	PA 030 165
CSW Products P/L – Commercial grade (Class 4.6)	PA 030 298
CSW Products P/L – High strength (Class 8.8)	PA 030 299
Ideal Engineering P/L - Commercial grade (Class 4.6) and High strength (Class 8.8)	PA 030 288
Coslee Heavy Metal Fabricators P/L - Commercial grade (Class 4.6) and High strength (Class 8.8)	PA 030 348
Wanbanna P/L - Commercial grade (Class 4.6) and High strength (Class 8.8)	PA 030 372

Reinforcing cage for bored pile foundations

David Lewis P/L – 2m	PA 029 5101
Lanez Engineering P/L – 3m	PA 030 045
South Eastern Industrial Supplies P/L – 3m	PA 030 163
Ideal Engineering P/L – 3m	PA 030 289
Coslee Heavy Metal Fabricators P/L – 3m	PA 030 350
M.A.S.T. Fabrications P/L – 3m	PA 030 356
Wanbanna P/L – 3m	PA 030 373
Access Covers P/L – 3m	PA 030 374

Standard cabinet (controller and universal cabinets)

Lanez Engineering P/L	PA 030 059
Ideal Engineeering P/L	PA 030 290
Coslee Heavy Metal Fabricators P/L	PA 030 349

SECTION 7 ROAD LIGHTING

7.1 LUMINAIRES

Luminaire - LED

Traffic technologies P/L – L1 (ALS108), L2 (ALS162) and L4 (ALS216)	PA 030 272
Gerard Lighting P/L – RoadLED L1 (100W 4K VR2 CO PEBN7 9006 aeroscreen), L2 (200W 4K VR2 CO PEBN7 9006 aeroscreen),L3 (300W 4K VR2 CO PEBN7 9006 aeroscreen)	PA 030 357

The following tunnel and high-mast luminaires have been granted **Product Acceptance**.

Luminaire - tunnel

Traffic Technologies P/L - T-LED, 38W, 75W, 145W, 185W, 220W	PA 030 357
Traffic Technologies P/L – FLUD, FLUD-M, 150W, 200W, 240W, 300W	PA 030 380
Sylvania – Pro LED, 127W, 150W, 180W, 255W and 320W	PA 030 393
Traffic Technologies P/L – S-LED	PA 030 415

Luminaire – high mast

Traffic Technologies P/L – H-LED, 260W, 350W, 495W and 690W	PA 030 390
Traffic Technologies P/L – E-LED, High Mast Flood	PA 030 391

7.2 POLES AND BRACKETS

Slip-base pole

Coslee Heavy Metal Fabricators P/L – 11m	PA 030 085
Coslee Heavy Metal Fabricators P/L – 13.5m	PA 030 099
SafeRoads P/L – 8.5m, 11m and 13.5m	PA 030 234
Coslee Heavy Metal Fabricators P/L – 8.5	PA 030 086
Ingal EPS P/L – 8.5m, 11m and 13.5m	PA 030 122
A D Coote & Co P/L – 8.5m, 11m and 13.5m	PA 030 124
Taperline Australia P/L – 8.5m, 11m and 13.5m	PA 030 126
CSP Pacific P/L – 8.5m, 11m and 13.5m	PA 030 271

Impact absorbing pole

Coslee Heavy Metal Fabricators P/L – 8.5m and 11m	PA 030 105
Ingal EPS P/L – 8.5m and 11m	PA 030 123
A. D. Coote & Co. P/L – 8.5m and 11m	PA 030 125
Saferoads P/L – 8.5m and 11m (direct buried)	PA 030 227
Ingal EPS P/L – 8.5m and 11m (direct buried)	PA 030 274

Mid-hinge pole

Coslee Heavy Metal Fabricators P/L – 10m	PA 030 183

Lighting bracket

Lanez Engineering P/L – Type 1 and Type 2	PA 030 148
Coslee Heavy Metal Fabricators – Type 1	PA 030 171
Coslee Heavy Metal Fabricators – Type 2	PA 030 172
Dooza Engineering P/L – Type 1	PA 030 177
Dooza Engineering P/L – Type 2	PA 030 178
Sesco Engineering P/L – Type 1	PA 030 179
Sesco Engineering P/L – Type 2	PA 030 180
Interpole P/L – Type 1	PA 030 204
Ingal EPS P/L – Type 1 and Type 2	PA 030 210
Saferoads P/L – Type 1 and Type 2	PA 030 233
CSP Pacific P/L – Type 1 and Type 2	PA 030 279

7.3 CABLE JOINTS FOR LIGHTING

The following cable joints have been **accepted for use** for jointing trunk cables to lighting pole cables in an approved cable pit.

Dome style joint
(For use with orange circular and SDI cables only)

GV Kinsman P/L - VJ4CR-2.52CET - 4C+E Orange circ. 16//25/35mm^2 and 2.5^2 TPS, VJ4CR-62CET - 4C+E Orange circ. 16/25/35mm^2 and 6mm^2 power authority cable, VJ3SDI-2.5CET – 16/25/35mm^2 1C XLPE/SDI and 2.5mm^2 TPS and VJ3SDI-6CET – 16/25/35mm^2 1C XLPE/SDI and 6mm^2 power authority cable	PA 030 364
Velnah P/L - JEDL223511611 – Single Phase and JEDL423511611 – Three Phase	PA 030 382

Other (commercially available connectors)
(For use with XLPE cables only)

Sicame Australia P/L – Piranha MUCI series	N/A

SECTION 8 ROADSIDE CABINETS

Electrical distribution cabinet

Butler Electrics P/L – Type 1	PA 030 120
Logix Engineering P/L – Type 1, Type 2 and Type 3	PA 030 282
Butler Electrics P/L – Type 2 and Type 3	PA 030 285

ITS field cabinet – ground mounted

Logix Engineering P/L -Single (3 door) and double (6 door)	PA 030 239
Hi-Lux Technical Services P/L -Single (3 door) and double (6 door)	PA 030 362
SAGE Automation P/L -Single (4 door) and double (6 door)	PA 030 363
B&R Enclosures Pty Ltd -Single (3 door)	PA 030 377
NHP Electrical Engineering Products P/L -Single (3 and 4 door)	PA 030 385

ITS field cabinet – pole mounted

SAGE P/L	PA 030 363
B&R Enclosures Pty Ltd	PA 030 377
NHP Electrical Engineering Products P/L	PA 030 385
Logix Engineering P/L	PA 030 414

Universal roadside cabinet

Logix Engineering P/L	PA 030 251

SECTION 9 ELECTRONIC SIGNS

The products listed below are standard, commonly used, electronic signs. The typical electronic sign uses LED technology as an illuminating light source.

Electronic speed limit sign (ESLS)

Hilux Technical Services P/L – discrete character 2 speed (NMS 1 compatible)	PA 030 167
Aldridge Traffic Systems P/L – Discrete character 2 speed (NMS 2 compatible) (and matrix version, non NMS compatible)	PA 030 276

Lane use management sign (LUMS)
(STREAMS compatible)

HMI Technologies – B and C size	PA 030 336
Compusign Systems P/L – C size	PA 030 346

Ramp control / metering sign (RCS)
(STREAMS compatible)

Hi-Lux Technical Services P/L – RC1, RC2 and RC3A	PA 030 188
HMI Technologies P/L - RC1, RC2 and RC3A	PA 030 351
Compusign Systems P/L - RC1, RC2, RC3A and RC3C	PA 030 366

No right/left turn sign

Hi-Lux Technical Services P/L – NRT / NLT	PA 030 189
Aldridge Electrical Industries P/L – NRT / NLT	PA 030 195
Aldridge Traffic Systems – NRT / NLT	PA 030 277

Variable message sign (VMS)

For future use

SECTION 10 CCTV

The products listed below have been tested and found to be compatible with DoT (Roads) CCTV network.

They are **accepted for use** on DoT (Roads) CCTV network.

CCTV camera

Bosch – MIC IP Starlight 7000i	PA 030 391
Axis Communications – Q6075-E	PA 030 395

SECTION 11 BLUETOOTH DETECTOR STATION

The following Bluetooth Detector Stations (BDS) have been approved for use on AddInsight and tested and considered **accepted for use** within DoT (Roads) network.

Bluetooth detector station (BDS)

HMI – GeckoAI	N/A
Sage – AddInsight OMNIA	N/A
Sage – AddInsight v3.1	N/A
Tyco – PCP-100 (3G)	N/A
UHS – PC-400-BM	N/A
Opito – Opito AddInsight BDS	N/A

SECTION 12 NETWORK COMMUNICATIONS DEVICES

The following network communication devices have been tested, found to be compatible with DoT (Roads) systems, and considered **accepted for use** within DoT (Roads) network.

STREAMS field processor	**Model**
Transmax	FP.IT-08

Backbone router	**Model**
Cisco	ASR 9006

Access switch	**Model**
Cisco	IE-3300

4G modem	**Model**
For future use	

APPENDIX A CONTROLLER/LANTERN COMPATIBILITY

The following compatibility matrix provides details of the compatibility of traffic signal controllers and traffic signal lanterns.

Only combinations shown on the matrix below shall be installed in the field.

Controller	LV lanterns (voltage dimming)	ELV lanterns (voltage dimming)	ELV lanterns (DBW)
VC4 and VC5			
ATSC4	ATS AEI BRAUMS Kalington Tyco	N/A	N/A
Eclipse	ATS AEI BRAUMS Kalington Tyco	N/A	N/A
QTC	ATS AEI BRAUMS Kalington Tyco	N/A	N/A
VC6.1			
ATSC4	ATS AEI BRAUMS Kalington Tyco	N/A	BRAUMS (conditional acceptance) ATS (conditional acceptance)
Eclipse	ATS AEI BRAUMS Kalington Tyco	N/A	N/A
QTC	N/A	N/A	N/A
VC6.2			
ATSC4	ATS AEI BRAUMS Kalington Tyco	N/A	BRAUMS (conditional acceptance) ATS (conditional acceptance)
Eclipse	N/A	N/A	N/A
QTC	N/A	N/A	N/A