LIGHTING
CONSTRUCTION MANUAL

INTRODUCTION

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Part of the Energy Queensland Group

Standard for Queensland Public Lighting Construction

Abstract: To promote industry uniformity through standardisation of equipment and practices throughout Queensland. The document is for use by Design & Construction Staff, Consulting Engineers, Architects and others directly concerned with Public Lighting Installations that are connected to the Distribution supply network.

This manual is to be used in conjunction with the Queensland Public Lighting Design Manual and the relevant *DNSP's* Standard Conditions for Public Lighting Services. These documents will serve as a valuable instrument by which efficient and economic constructions complying with relevant codes of practice and guidelines can be constructed throughout both *DNSP's* respective areas of supply.

Keywords: Public Lighting; Construction; Construction Manual

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Queensland Public Lighting Construction Manual

Folder 1 – Introduction & Cross Reference Tables

Folder 1

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1 DISTRIBUTORS' CONTACT DETAILS

Energex

Web Address	www.energex.com.au
Public Lighting Enquiries via General Customer Service	13 12 53
General Customer Service - Email	E-mail requests can be sent to custserv@energex.com.au or by completing the Contact Form as provided under "Contact Us" on the Energex Web site: www.energex.com.au
Loss of Supply	13 62 62
Emergencies	13 19 62

Ergon Energy

Web Address	www.ergon.com.au
General Customer Service - Phone	13 74 66
General Customer Service - Email	E-mail requests can be sent to networkenquiries@ergon.com.au or by completing the Contact Form as provided under "Contact Us" on Ergon Energy's Web site: www.ergon.com.au
24 Hour Faults	13 22 96
Life-Threatening Emergencies	000 or 13 16 70

2 DIAL BEFORE YOU DIG

Phone 1100 - free call (except from mobiles)

Website **www.1100.com.au**

Dial before you Dig is the national referral service for information on the location of underground infrastructure.

Australia's major service providers have a single web-enabled information service for information on the location of underground communications, gas, water and electricity infrastructure.

The Dial before you Dig online service is available 24 hours a day and enables users to have more control over their enquiry as you detail the dig site on the mapping software yourself.

Use the website to ensure that you 'Dial Before You Dig' before any excavation work.

When calling the 1100 phone number the operator may require the following:

- your name and address
- name of company
- contact telephone number
- email address
- contact name on site
- site address and both nearest cross streets
- start date of proposed work
- type of work being carried out

Note: WP1323 / BS001405R107 Electricity Entity Requirements: Working Near Overhead and Underground Electric Lines has requirements for excavating near underground electrical services.

ASBESTOS WARNING

Older type conduits may contain asbestos. Electrical workers who are required to work on these need to identify if this hazard is present and, if necessary, take appropriate action.

Asbestos information is available on the Workplace Health and Safety Queensland web site www.worksafe.qld.gov.au under the heading "Injury Prevention & Safety".

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3 FOREWORD

The Queensland Public Lighting Construction Manual has been compiled in conjunction with the Network Engineering Standards Department of *Energex* and the Network Standards Department *of Ergon Energy*.

Note: Printed versions of the Manual are "uncontrolled copies" - the latest version is available on the *Energex* website (www.energex.com.au) or *Ergon Energy* website (www.ergon.com.au).

Safety

In all activities undertaken, the safety of our employees, contractors, customers and the community is paramount. Safety is our number one value and there is a commitment to ensuring that "safety must come first" to achieve a no injuries workplace. In accordance with legislative requirements we have developed Policies, Standards and Work Practices that our workers are required to follow to ensure the safety of themselves, other workers, customers and the community. We trust that electrical contractors and persons in control of sites will appreciate that our workers will not undertake any work in a situation where there are uncontrolled risks inconsistent with our safe systems of work.

Disclaimer

Whilst the Public Lighting Construction Manual contains material relevant to the electricity industry legislation, codes of practice and standards, it is not intended to provide legal advice on how *electrical contractors* can meet their own statutory obligations or comply with legislation, codes of practice or industry standards such as AS/NZS 3000 (Wiring Rules).

This document does not provide advice for the purposes of Part 5 of the *Electrical Safety Regulation 2013*. The *Electrical Safety Act 2002*, *Electrical Safety Regulation 2013* and associated codes of practice establish requirements for electrical safety and place obligations on employers, self-employed persons and others. These documents may be obtained from the Queensland Government website (www.justice.qld.gov.au) and (www.legislation.qld.gov.au).

Whilst care has been taken in the preparation of the Public Lighting Construction Manual, the distribution entities do not guarantee that the information contained in the Public Lighting Construction Manual is accurate, complete or up to date at time of publication. To the extent permitted by the relevant legislation the *DNSP* will not be responsible for any loss, damage, cost or expense incurred as a result of any error, omission or misrepresentation in relation to the information contained in the Public Lighting Construction Manual.

Any proposed deviation from this document must be submitted to Energex or Ergon Energy in writing with full descriptions and details for approval before it is implemented. Allowance should be made to ensure Energex and Ergon Energy are provided with sufficient time for full and in-depth consultation and deliberation.

In the event that any user of this manual considers the content uncertain, ambiguous or otherwise in need of interpretation, the user may request Energex or Ergon Energy to clarify the provision. Should further review be required, the provisions of the previous clause "General" will need to be followed.

When downloaded or printed, this document is uncontrolled. This document is subject to amendment Jointly by Energex and Ergon Energy at any time. Note: Users are responsible for ensuring they are using the latest information.

This document has been developed using information provided by Energex and Ergon Energy Construction, Planning and Design staff and as such is suitable for most situations encountered. The requirements of Australian Standards, Building Codes and all other statutory bodies are regarded as the accepted minimum requirements for the establishment of Public Lighting installations. Where this document exceeds those requirements, this document is to become the accepted minimum.

Energex and Ergon Energy will not accept any liability for work carried out to a superseded standard. Energex and Ergon Energy also may not accept work carried out that is not in accordance with current standard requirements. This manual is subject to ongoing review. If conflict exists between manuals, the requirements of the most recent manual are to be adopted.

A proprietary item is any item identified by graphic representation on the drawings, or by naming one or more of the following: manufacturer, supplier, installer, trade name, brand name, catalogue or reference number, and the like. The identification of a proprietary item is a recommendation ONLY. It indicates the required properties of the item, such as the type, quality, appearance, finish, method of construction and performance.

More than one supplier or product is capable of meeting this Specification. An alternative/ equivalent item is permissible, provided that it meets the relevant performance criteria and is otherwise of a quality reasonably satisfactory to Energex and Ergon Energy.

No claim shall arise from any rejection by Energex and Ergon Energy of an alternative/equivalent item.

The acceptance of an alternative/equivalent item shall not be grounds for a variation to cost or time. When offering an alternative/equivalent item, the Contractor is to provide all available technical information, and any other relevant information requested by Energex or Ergon Energy. If requested by Energex or Ergon Energy, the Contractor is to obtain and submit reports on relevant tests by an independent testing authority.

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4 DEFINITIONS, ABBREVIATIONS AND ACRONYMS

Term	Definition
Aeroscreen Luminaire	A luminaire where the intensity at or near the horizon is restricted in accordance with the requirements of the aviation authorities. They are commonly called 'full cut-off luminaires' describing luminaires that emit no light above the horizontal plane.
Arrangement	The layout, in plan, of the luminaires in a lighting scheme, e.g. single sided, staggered, opposite or central along roadways.
Carriageway	That portion of the road devoted to the use of vehicles, inclusive of shoulders and auxiliary lanes. An undivided road, either one way or two way, comprises a single carriageway. A road divided longitudinally by a median or similar comprises two carriageways.
Conflict Points	Roadway features that influence the passage of motorists and pedestrians and that require particular attention when preparing the lighting design e.g. chevrons, pedestrian refuges, gore points at off / on ramps.
Customer Owned and Operated (previously Rate 3)	Public Lighting supplied, installed, owned and maintained by the Public Body. Supply is unmetered and has a fixed wattage and must comply with the AS/NZS 3000 Wiring Rules. Beyond the Point of Supply, reticulation is owned and maintained by the consumer.
DNSP	(Distribution Network Service Provider) Corporations that are responsible for electricity distribution in Queensland e.g. Energex Limited and Ergon Energy Limited.
Energex Contributed (Rate 2)	Public lighting owned and maintained by the Electricity Entity.
Energex Non Contributed (Rate 1)	Public lighting supplied, installed, owned and maintained by the Electricity Entity. The tariff includes components supply and installation and recovery over time.
Energex Unmetered (Rate 3)	Public Lighting supplied, installed, owned and maintained by the Public Body. Supply is unmetered and has a fixed wattage and must comply with the AS/NZS 3000 Wiring Rules. Beyond the Point of Supply, reticulation is owned and maintained by the consumer.
Energex Unmetered (Rate 8)	Public Lighting supplied, installed, owned and maintained by a customer who is not a Public Body. Supply is unmetered and has a fixed wattage and must comply with the AS/NZS 3000 Wiring Rules. Beyond the Point of Supply, reticulation is owned and maintained by the consumer.
Ergon Owned and Operated (previously Rate 1)	Public Lighting supplied, installed, owned and maintained by Ergon Energy.
Funding Arrangements	The determination of who provides the funding for the installation. In the case of a Rate 1 installation, the electricity distributor funds the design and construction of the installation. In the case of a Rate 2 installation, the Public Body or developer funds the design and construction of the installation.

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Term	Definition
Gifted and Ergon Operated (previously Rate 2)	Public Lighting Gifted to and thereafter operated and maintained by Ergon Energy.
Glare	Conditions of vision in which there is discomfort or a reduction in the ability to see, or both, caused by an unstable distribution or range of luminance, or extreme contrasts in the field of vision.
Illuminance	The physical measure of illumination. It is the luminous flux arriving at a surface divided by the area of the illuminated surface.
Lamp	The generic term for the light source in a luminaire.
LED	Light Emitting Diode: a semiconductor diode that emits light when conducting current and is used in electronic displays, indoor and outdoor lighting, etc
LED Module	Is a unit containing one or more LEDs that is supplied as a light source. It may contain additional components, e.g. lenses or resistors or ESD protection devices, but does not include the LED driver.
Lighting Column	A vertical structure of any appropriate material, which, is designed to support luminaires either directly or by use of outreach arms or mounting frames.
Luminaire	Apparatus which distributes, filters, or transforms the light transmitted from one or more lamps and which includes, except for the lights themselves, all the parts necessary for fixing and protecting the lamps and, where necessary, circuit auxiliaries together with the means for connecting them to the electrical supply.
Luminance	The physical quantity corresponding to the brightness of the surface (lamp, luminaire or reflecting material such as the road surface) when viewed from a specified direction.
Metered Lighting	Lighting on private roads, walkways, open areas etc., that are not dedicated public roads.
Mounting Height	The vertical distance between the photometric centre of a luminaire and the surface which is to be illuminated e.g. the road surface.
Outreach	The distance, measured horizontally, from the photometric centre of a luminaire to: a. for lighting columns with outreach arms, the centre of the vertical section of the pole b. for bracket arms, the mounting plate by means of which the bracket arm is secured to the pole, or wall or other supporting surface.
Public Body	Organisations defined as Road Controlling Authorities and include Local Government, Department of Transport and Main Roads or other Queensland Government Departments and Queensland Public Authorities as approved by the Queensland State Government.
Public Lighting	(Road Lighting) Lighting for any roadway, pathway or dedicated public thoroughfare, park or precinct (Lighting provided in accordance with the AS/NZS 1158 series).
Roadway Width	The traverse distance between the outer road kerb-lines or edges (for divided roads, this will apply to the two carriageways plus the intervening median strip). Roadway width is used only for the lighting of curves.

Term	Definition
Solid State Lighting (SSL)	A group of devices that embody p-n junctions that emit visible radiation when excited by an electric current. They can be further defined by the type of technology used, i.e. light-emitting diodes (LEDs), organic light-emitting diodes (OLEDs) or polymer light-emitting diodes (PLEDs)
Tilt (Upcast) Angle	The angle by which the axis of the fixing spigot entry is tilted above the horizontal when the luminaire is installed.

5 REFERENCES

5.1 Joint controlled document

Energex Document Number	Ergon Energy Document Number	Document Name
00294	NA000403R328	Queensland Electricity Connection Manual (QECM)
WP1323	BS001405R107	Electricity Entity Requirements – Working Near Overhead and Underground Electric Lines
00767	NA000403R434	Queensland Public Lighting Design Manual

5.2 Energex controlled document

Document Number	Document Name	Document Type
00576	Standard Conditions for Public Lighting Services	Manual
00305	Energex Underground Distribution Construction Manual (UDC)	Manual
4920	Energex Overhead Construction Manual (OHCM)	Manual

5.3 Ergon Energy controlled documents

Document Number	Document Name	Document Type
	Ergon Energy Overhead Construction Manual	Standard
	Ergon Energy Underground Construction Manual	Standard

5.4 Other documents

Nil.

6 PURPOSE AND SCOPE

The purpose of this manual is to promote industry uniformity through standardisation of equipment and practices throughout Queensland. The document is for use by Design & Construction Staff, Consulting Engineers, Architects and others directly concerned with Public Lighting Installations that are connected to the respective supply networks.

Manufacturing/fabrication drawings are not included in this manual but are detailed in both the QESI, Energex Public Lighting Specifications, and the Ergon Energy Distribution Network Hardware manual.

This manual is to be used in conjunction with the Queensland Public Lighting Design Manual and the relevant *DNSP's* Standard Conditions for Public Lighting Services. These documents will serve as a valuable instrument by which efficient and economic constructions complying with relevant codes of practice and guidelines can be constructed throughout both *DNSP's* respective areas of supply.

Difficulties experienced in using this manual, or suggestions for improvement should be entered on the Construction Standards Feedback Form NA000303F100 in accordance with the Procedure NA000303 (see 0).

7 STRUCTURE OF CONSTRUCTION MANUAL

General

The broad structure of the Public Lighting construction manual is segregated into Volume, Folder, Page. Any one page may comprise of multiple individual drawing sheet numbers. For this entire manual, the Volume is always 1. Page 1 of each Folder contains Indices and Page 2 references to Construction Types and Cross References. There are a total of 13 Folders comprising the following:

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Volume	Folder	Pages	Description	Usage
1	1	1-6	Introduction, Amendments & Indices	***Joint***
1	2	800-916	Assemblies	***Joint***
1	3	1-19	Construction Practices	***Joint***
1	4	1-16	Services	***Joint***
1	5	1-19	Major Road Columns	***Joint***
1	6	1-7	Minor Road Columns	***Joint***
1	7	1-12	Pole Brackets Major Roads	***Joint***
1	8	1-6	Pole Brackets Minor Roads	***Joint***
1	9	1-11	Floodlighting	***Joint***
1	10	2 & 8	Joint Use	***Joint***
1	11	3 & 4	Bulkhead Luminaires	***Energex Only***
1	12	1-9	PE Cell Conversion	***Joint***
1	13	1-6	Control Wiring	***Energex Only***

The new structure of this manual has separated construction and assembly detail for any particular construction type and places these in separate drawing folders. The construction drawings now include broad diagrammatic and installation notes for the unique construction types, and each refer to multiple assembly drawings that constitute that particular type.

Figure 3: Construction - Material List

Figure 3: Construction - Installation

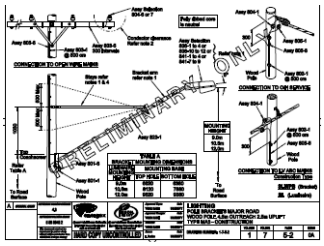
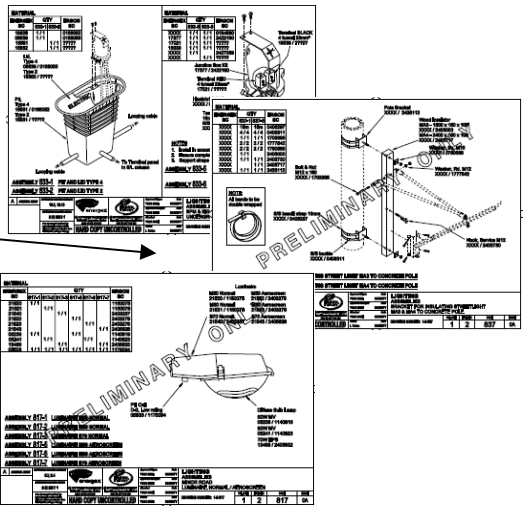


Figure 3: Multiple Assembly Drawings



Stock codes for all equipment and materials for both corporations are now indicated in an assembly drawing section 1-2-8XX and appear in no other documents. These are quoted on an equivalence basis where there are common assemblies. Constructions and Assemblies unique to either corporation are indicated in the drawing title bar as “ENERGEX / ERGON ONLY”, with tabular entries corresponding to the other entity’s stock codes in associated Assembly drawings denoted “NIL”.

MATERIAL

ENERGEX SC	QTY 825-1	QTY 825-2	ERGON SC
NIL	- / 1		0104681
NIL		- / 1	0104680

Figure 4: Example of Ergon Only Assembly

It should be noted that minor variances in purchasing arrangements between the two corporations have some equivalent assembly items packaged as a bundle under one stock code by one corporation and represented by a group of stock codes by the other. These variances are catered for in the Assembly stock code tables and do not represent omissions.

MATERIAL

ENERGEX SC	QTY 831-1	ERGON SC
15528	1 / 1	0168052
06839	1 / 1	0168055
15637	1 / -	NIL
15638	2 / -	NIL
15419	1 / -	NIL
08345	AR	1542919

Figure 5: Example of Bundled Items

This manual also aligns to the terminology of the Australian Standards AS/NZS1158 in relation to Luminaires and Lamps.

A detailed cross reference of all legacy Energex drawings can be found in drawings 1-1-1 & 2. A list of all new drawings that include also those that are being redrafted from the Legacy Energex manual can be found in drawings 1-1-4, 5 & 6.

Construction Code Types noted in Sheets at the commencement of each Drawing Folder on Page 2, (following indices on Page 1) detail Types.

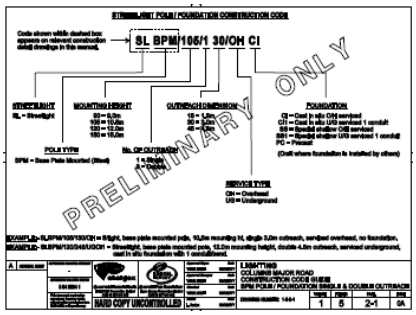


Figure 6: Example Construction Code Type

Assembly manufacturing drawings have now been removed from the Energex Construction Manual and are now attached to individual procurement specifications.

A cross reference of all legacy Ergon Energy drawings detailed in drawing 1-1-3. A list of all new drawings can be found in drawings 1-1-4,5 & 6.

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APPENDIX 1 – AMENDMENTS AS CONTAINED IN VERSION 8

Folder	Page Number	Brief Description of Amendments
1	Introduction	Version 8 of the Introduction, update contact details, add definitions, updated reference documentation and remove Appendix 2 & 3.
	2-1 (H)	Updates to reflect issue 8 changes.
	2-2 (H)	
2	1-2 (H)	817-21, 25, 32 & 35 removed, 817-22, 23, 33, 34, 36-38 added. 841-1 to 7 moved to page 3.
	1-3 (H)	841-1 to 7 moved from page 2, 868-1 to 6 moved to page 4.
	1-4 (H)	868-1 to 6 moved from page 3, 868-7 & 869-4 added, 902-8 to 12, 14 & 16-19 moved to page 5.
	1-5 (D)	902-8 to 12, 14 & 16-19 moved from page 4.
	816 (G)	Ergon stock codes added for 816-28 & 816-29.
	817 (H)	817-21, 25, 32 & 35 removed, 817-22, 23, 33, 34, 36-38 added.
	831 (F)	Junction box only removed, maintenance only stock codes removed.
	833 (D)	Junction box only removed (17377) replaced with junction box kit (2422160). Maintenance only stock codes removed.
	843 (F)	Ergon stock codes added for 843-25 & 843-26.
	859 (B)	Alteration to bracket stock code and description on 859-1.
	867 (F)	Junction box only removed (17377) replaced with junction box kit (2433704). Maintenance only stock codes removed.
	868 (B)	Assembly 868-7 floodlight L200 added.
	869 (B)	Assembly 869-4 added, M16 bolt corrected to 30mm along with Ergon stock code correction.
	906 (B)	Ergon only removed from title, Energex stock codes added to 906-2.
	916 (B)	S/S buckle amounts updated.
3	14-1 (D)	Clearance table and notes updated.
	14-2 (C)	Note 1 added to drawing.
	14-3 (B)	Note 1 added to drawing.
6	2-6 (C)	Construction codes updated to reflect new range of LED luminaires.
	4-2 (H)	Remove 817-21, 25, 32 & 35. Addition of 817-22, 23, 33, 34 & 36 to 38.
	4-3 (B)	Remove 817-21, 25, 32 & 35. Addition of 817-22, 23, 33, 34 & 36 to 38.
	6-1 (F)	Remove 817-21, 25, 32 & 35. Addition of 817-22, 23, 33, 34 & 36 to 38. Note 5 added.
	6-2 (F)	Remove 817-21, 25, 32 & 35. Addition of 817-22, 23, 33, 34 & 36 to 38.
	7-1 (F)	Remove 817-21, 25, 32 & 35. Addition of 817-22, 23, 33, 34 & 36 to 38.
	7-2 (F)	Remove 817-21, 25, 32 & 35. Addition of 817-22, 23, 33, 34 & 36 to 38.
8	2-2 (G)	Construction codes updated to reflect new range of LED luminaires.
	3-1 (H)	Remove 817-21, 25, 32 & 35. Addition of 817-22, 23, 33, 34 & 36 to 38.
	3-2 (H)	Remove 817-21, 25, 32 & 35. Addition of 817-22, 23, 33, 34 & 36 to 38.
	4-1 (H)	Remove 817-21, 25, 32 & 35. Addition of 817-22, 23, 33, 34 & 36 to 38.
	4-2 (H)	Remove 817-21, 25, 32 & 35. Addition of 817-22, 23, 33, 34 & 36 to 38.
	5-1 (H)	Remove 817-21, 25, 32 & 35. Addition of 817-22, 23, 33, 34 & 36 to 38.
	5-2 (H)	Remove 817-21, 25, 32 & 35. Addition of 817-22, 23, 33, 34 & 36 to 38.
	6-1 (H)	Remove 817-21, 25, 32 & 35. Addition of 817-22, 23, 33, 34 & 36 to 38.
	6-2 (F)	Remove 817-21, 25, 32 & 35. Addition of 817-22, 23, 33, 34 & 36 to 38.
9	2-1 (E)	Construction codes updated to reflect new range of LED pedestrian crossing floodlights.

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	2-2 (C)	H150 added to lamp wattage and type.
	3-1 (E)	Assembly 914-7 corrected to H150.
	4-1 (E)	Assembly 914-7 corrected to H150.
	5-1 (E)	Assembly 914-7 corrected to H150.
	6-1 (D)	Assembly 914-7 corrected to H150.
	7-1 (C)	Assembly 868-7 & 869-4 added, (small) description added to 869-3.
	7-2 (C)	Assembly 868-7 & 869-4 added.
	8-1 (C)	Assembly 868-7 & 869-4 added, (small) description added to 869-3.
	8-2 (C)	Assembly 868-7 & 869-4 added.
	11-1 (B)	Energex only removed from title. Control box removed, luminaire and bracket material added to replace existing luminaire.
	11-2 (B)	Energex only removed from title. Control box removed, luminaire and bracket material added to replace existing luminaire.
10	8-3 (C)	Road authority added to anchor cage text. SLED luminaire type added.

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APPENDIX 2 – DRAWING CROSS REFERENCES

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EGX REF	DESCRIPTION	COMMENT	NEW REF
1.1.1	Orientation of Luminaires on Brackets	To Design Manual	N/A
1.1.2	Lamp Types	To Design Manual	N/A
1.2	Definitions	To Design Manual	N/A
1.3	Mounting Heights for Luminaires	To Design Manual	N/A
1.4	Ped X'ing Floodlight Aiming	Construction Prac	1-3-9
1.5-8	Standard Streetlight Symbols	Obsolete	N/A
1.9	Pole Definitions	To Design Manual	N/A
1.10	Cat 'P' Luminaire Locations	To Design Manual	N/A
1.11	Arrangements for Adverse Locations	To Design Manual	N/A
1.12	Cat 'V' Simple Intersections	To Design Manual	N/A
1.13	Cat 'V' Channelised Intersections	To Design Manual	N/A
2.1	Minor Road Found 3 Bolt BPM	Obsolete, Now 4 Bolt	1-2-840
2.2	Minor Road Decorative Found 3 Bolt	Obsolete, Now 4 Bolt	1-2-840
2.3	BIG Install Details Major/Minor Roads	Redrafted	1-5-16-1
2.4	BIG Footing / Erection, Minor Roads	Redrafted	1-6-8-1
2.5	Minor Road BPM Foundation	Redrafted	1-6-4-1/2
2.6	Major Road BIG Poles	Obsolete	N/A
2.7	Major Road BPM Poles	Redrafted	1-5-6-1/2
2.8	Major Road SBM Poles	Redrafted	1-5-9-1/2
2.9	Major Road SBM Wiring Connection	Redrafted	1-2-831
2.11	Major/Minor Bracket Types & Lanterns	To Design Manual	N/A
2.12	Minor Road M1 Bracket 0.5m Outreach	Redrafted to MI3	1-2-845
2.13	Major/Minor Road PT Bracket 0.3m Outreach	Redrafted to PT	1-2-847
2.14	Minor Road M2 Bracket 1.2m Outreach	Obsolete, now MI1	1-2-821
2.15	Minor Road M3 Bracket 3.0m Outreach	Obsolete, now MI2	1-2-821
2.16	Major Road T1 Bracket 1.2m Outreach	Obsolete, now MA1	1-2-822
2.17	Major Road T3 Bracket 2.0m Outreach	Obsolete	N/A
2.18	Major Road T4 Bracket 3.0m Outreach	Obsolete, now MA2	1-2-822
2.19	Major Road T5 Bracket 4.5m Outreach	Obsolete, now MA3	1-2-823
2.20	Major Road T6 Bracket 3.0m Outreach	Obsolete, now MA4	1-2-823
2.21	Major Road BPM Foundation	Redrafted	1-2-810
2.22	Major Road Shallow Foundation	Redrafted	1-2-813
2.23	Major Road SBM Foundation	Redrafted	1-5-9-4
2.24	Glare Shield to Sylvania B2223/4	Redrafted	1-3-3-1
2.25	Major Road BIG Footing Details	Obsolete	N/A
2.26	Unmetered UG supply Non Std Lumin	Redrafted	1-4-11-1
2.27	Unmetered OH supply Non Std Lumin	Redrafted	1-4-13-1
2.28	Major Road SBM Cable Clamp Install Details	Redrafted	1-5-9-9
2.29	Sylvania B3000 Install & Maintenance	To Mtce Manual	N/A
2.30	Replacement 3 pin Plug & Socket SBM	Obsolete	N/A
2.31	Telstra Mobile Approved Hardware	Redrafted	1-10-3
2.32	Telstra Mobile Transceiver Install	Redrafted	1-10-4
2.33	Telstra Mobile Transceiver Install	Redrafted	1-10-3

EGX REF	DESCRIPTION	COMMENT	NEW REF
2.34	Telstra Mobile Unpowered Cabling Detail	Redrafted	1-10-5
2.35	Telstra Mobile Powered Cabling Detail	Redrafted	1-10-6
2.36	Telstra Mobile Powered Wiring Detail	Redrafted	1-10-7
2.37	Major Road SBM Footing Cross Fall <1:6	Redrafted	1-5-9-6
2.38	Major Road SBM Footing Cross Fall >1:1.5	Redrafted	1-5-9-8
2.39	Wood / Concrete Pole ID	Redrafted	1-2-880
2.40	Steel Pole ID	Redrafted	1-2-880
2.41	Access for Vehicles on Roundabouts	Redrafted	1-3-11
2.42	Major Road Mid Hinged BPM Erection	Redrafted	1-3-15-1
2.43	Major Road Mid Hinged BPM Install Notes	Redrafted	1-3-15-2
2.44	Major Road SBM Footing Concrete Steps	Redrafted	1-5-20
2.45	Special Bulkhead Luminaires	Redrafted	1-2-870/1
2.46	Major Road Rate 1 & 2 Wiring Detail	To Design Manual	N/A
2.47	Major Road Rate 3 Wiring Detail	To Design Manual	N/A
2.48	Major Road Bracket Fixing	To Design Manual	N/A
2.49	Major/Minor Road Bracket Fixing	To Design Manual	N/A
2.50	Unmetered OH Supply Arrangement	Redrafted	1-4-13-1
2.51	Unmetered UG Supply	Redrafted	1-4-14-2
2.52	Minor Road Est 4 Bolt Precast Foundation	Redrafted	1-2-855
2.53	Minor Road Est 4 Bolt Precast Foundation	Redrafted	1-2-855
2.54	Minor Road 3 Bolt Precast Foundation	Obsolete	N/A
2.55	Minor Road 3 Bolt Precast Foundation	Obsolete	N/A
2.56	Minor Road 4 Bolt Precast Foundation	Redrafted	1-2-855
2.57	Minor Road 4 Bolt Precast Foundation	Redrafted	1-2-855
2.58	Major Road 4 Bolt Precast Foundation	Redrafted	1-2-842
2.59	Major Road 4 Bolt Precast Foundation	Redrafted	1-2-842
3.1	Minor Road 0.5m M1 Bracket	Redrafted	1-8-5
	Minor Road 1.2m M2 Bracket	Redrafted	1-8-3
	Minor Road 3.0m M3 Bracket	Redrafted	1-8-4
3.2	Major/Minor Road 0.3m PT Bracket	Redrafted	1-7-8
3.3	Minor Road PE Cell Conv OH Supply	Redrafted	1-12-3
3.4	Minor Road PE Cell Conv OH Supply	Redrafted	1-12-4
3.5	Major/Minor Road PE Cell Conv No PE	Redrafted	1-12-5
3.6	Major/Minor Road PE Cell Conv With PE	Redrafted	1-12-6
3.7	Major/Minor Road PE Cell Conv With PE	Redrafted	1-12-7
3.8	Minor Road 1 Phase Control Light Main	Redrafted	1-12-8
3.9	Major/Minor Road 1, 2 & 3 Phase Contactor	Redrafted	1-12-9
4.1	Major Road 1.5m T1 Bracket	Obsolete, now MA1	1-7-3
	Major Road 3.0m T4 Bracket	Obsolete, now MA2	1-7-4
4.2	Major Road 2.0m T3 Bracket	Obsolete, now MA5	1-7-7
4.3	Major Road 3.0m T6 Bracket	Obsolete, now MA4	1-7-6
	Major Road 4.5m T5 Bracket	Obsolete, now MA3	1-7-5
4.4	Major Road OH Supply Ped X'ing Floodlight	Redrafted	1-9-8

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Drawn	L. Burton / T. Borg	14/10/10

LIGHTING
INTRODUCTION
EGX LEGACY DRAWING CROSS REFERENCE

EE DRWG NO: 1-1-1-1

EGX DRWG NO: 10500-A4-1-1-1-1

VOLUME	FOLDER	PAGE	ISSUE
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EGX REF	DESCRIPTION	COMMENT	NEW REF
4.5	Major Road 0.3m PT Bracket	Redrafted	1-7-8
5.1	Major Road BPM OH Supply Single Outreach	Redrafted	1-5-4
5.2	Major Road BPM OH Supply Dual Outreach	Redrafted	1-5-4
5.3	Major Road OH Supply Ped X'ing Floodlight	Redrafted	1-9-8
5.4	Major Road BPM OH Supply Single Outreach	Obsolete	N/A
5.5	Major Road BPM OH Supply Dual Outreach	Obsolete	N/A
6.1	Minor Road Terminal Panel	Redrafted	1-2-818
6.2	Minor Road BPM 6.5m w - Intergral 0.5m OR	Redrafted	1-6-7
6.3	Minor Road BPM 4.5/5.5m Pole Single OR	Redrafted	1-6-4
6.4	Minor Road BPM 4.5/5.5m Pole Dual OR	Redrafted	1-6-4
6.8	Minor Road Estate 4.5m Pole Type 1	Redrafted	1-6-3
6.9	Minor Road Estate 4.5m Pole Type 2	Redrafted	1-6-5
7.1	Major Road Terminal Panel	Redrafted	1-2-811
7.2	Major Road UG BIG,BPM & SBM Pole 1 OR	Redrafted	1-5-14
7.3	Major Road UG BIG,BPM & SBM Pole 2 OR	Redrafted	1-5-14
7.4	Major Road UG Ped X'ing Floodlight	Redrafted	1-9-7
7.5	Joint Use Traffic Light Wiring	Redrafted	1-10-8
8.1	High Mast UG BIG,BPM & SBM Pole	Redrafted	1-5-10
8.2	High Mast Headframe 1 & 2 Way	Redrafted	1-2-851
8.3	High Mast Headframe 3 Way	Redrafted	1-2-852
8.4	High Mast Headframe 4 Way	Redrafted	1-2-852
8.6	High Mast Headframe Manufacturing dwg	To Specification	N/A
10.1	Major/Minor Road BIG UG Install	Redrafted	1-4-11
10.2	Major/Minor Road BPM UG Install	Redrafted	1-4-12
10.3	Major/Minor Road Junction Box Wiring	Redrafted	1-2-833
10.4	Major Road 1Ph Junction Box SBM	Redrafted	1-2-887
10.5	Major/Minor Road Loop In/Out	Obsolete	N/A
10.6	Major Road SBM UG Supply	Redrafted	1-2-831
10.7	Major Road Impact Abs Pole UG Supp	Obsolete	N/A
10.8	Major/Minor Road UG Supply from Pit	Redrafted	1-4-15-1
10.9	Major/Minor Road Conduit Across Road	Redrafted	1-3-16
10.10	Pit Install General Arrangement	Redrafted	1-3-17
10.11	Major Road 3Ph Junction Box SBM	Redrafted	1-2-888
12.1	Zellweger S/L Relay Box Wiring	Redrafted	1-13-3
12.2	S/L Contactor Box Wiring	Redrafted	1-13-4
12.3	Luminaire Control Gear Wiring	Redrafted	1-13-5
12.4	Joint Use S/L Box Wiring	Redrafted	1-13-6
13.1	Minor Road BIG Reinstatement Type 1	Obsolete	N/A
13.2	Minor Road BIG Reinstatement Type 2	Obsolete	N/A
13.3	Minor Road BIG Reinstatement Type 3	Obsolete	N/A
13.4	Minor Road BIG Reinstatement Type 4	Obsolete	N/A
13.5	Minor Road BIG Reinstatement Type 5	Obsolete	N/A
13.6	Minor Road BIG Reinstatement Type 6	Obsolete	N/A

EGX REF	DESCRIPTION	COMMENT	NEW REF
13.7	Minor Road BIG Reinstatement Type 7	Obsolete	N/A
13.8	Terminal Cover Temp Cover	Obsolete	N/A
14	Stock Code Tables	Ref New Assy Dwgs	N/A
15.1	Major/Minor Road OH Wood Watchman	Redrafted	1-9-3
15.2	Major/Minor Road OH Steel Watchman	Redrafted	1-9-4
15.3	Major/Minor Road UG Steel Watchman	Redrafted	1-9-5
15.4	Major/Minor Road OH Cust Pole Watchman	Redrafted	1-9-6
15.5	Watchman Anti Glare Louvre	To Specification	1-2-863
15.6	Watchman Anti Vandal Guard	To Specification	1-2-865
15.7	Watchman Lamp Holder M'fact	To Specification	1-2-863
800	Service Hook to Pole	Revised	1-2-800
801	Low Voltage Fuse Link	Revised	1-2-801
802	Strain Clamp to Service Hook	Revised	1-2-802
803	Saddle to Pole	Revised	1-2-803
804	Insulating Piercing Connectors	Revised	1-2-804
805	End Cap Push On	Revised	1-2-805
806	Major Road Luminaires	Revised	1-2-806
807	Major Road Supply to Terminal Panels	Revised	1-2-807
808	Major Road Outreach Arms	Revised	1-2-808
809	Major Road BIG BPM Poles	Revised	1-2-809
810	Major Road BPM Foundation	Revised	1-2-810
811	Major Road Terminal Panels	Revised	1-2-811
812	Conduit Bend	Revised	1-2-812
813	Major Road BPM Shallow Foundation	Revised	1-2-813
814	Minor Road BPM Steel Poles	Revised	1-2-814
815	Minor Road Outreach Arms	Revised	1-2-815
816	Minor Road Luminaires Nostalgia Type 1 & 2	Revised, Type 1 Only	1-2-816
817	Minor Road Normal Luminaires	Revised	1-2-817
818	Minor Road Terminal Panels	Revised	1-2-818
819	Minor Road Cast in Situ Foundation	Obsolete	1-2-819
820	Minor Road Precast Foundation	Obsolete	1-2-820
821	Minor Road MI1 & MI2 Brackets	Revised	1-2-821
822	Minor Road MA1 & MA2 Brackets	Revised	1-2-822
823	Major Road MA3 & MA4 Brackets	Revised	1-2-823
824	Major Road Spigot Adaptor Bracket	Revised	1-2-824
825	3 & 4 Way Headframe (Spider)	Revised	1-2-825
826	Major Road Outreach for 3 & 4 Way Spider	Revised	1-2-826
827	Major Road Terminal Panels	Revised	1-2-827
830	EE Asset ID Number	Revised	1-2-830
8026	1/3 Phase 25mm² LVABC from LVABC	Revised	1-4-3
8027	1/3 Phase 25mm² LVABC from Open Wire	Revised	1-4-4
8028	1/3 Phase 25mm² LVABC Service Looping	Revised	1-4-5
8029	1/3 Phase 25mm² LVABC Service Looping	Revised	1-4-6

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LIGHTING
INTRODUCTION
EGX LEGACY DRAWING CROSS REFERENCE

EE DRWG NO: 1-1-1-2
EGX DRWG NO: 10500-A4-1-1-1-2

VOLUME	FOLDER	PAGE	ISSUE
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EGX REF	DESCRIPTION	COMMENT	NEW REF
8030	Major Road 16mm² Cable from LV Pillar	Revised	1-4-7
8031	Minor Road 6mm² 2 Core Cable from Pillar	Obsolete	N/A
8035	Major Road BIG Conc Pole OH Service	Revised	1-5-3
8036	Major Road BPM Steel OH Service	Revised	1-5-4
8037	Major Road BIG Conc UG Service	Revised	1-5-5
8038	Major Road BPM Steel UG Service	Revised	1-5-6
8058	Major Road BIG 3 & 4 Way Spider UG Service	Revised	1-5-7
8059	Major Road BPM 3 & 4 Way Spider UG Service	Revised	1-5-8
8041	Minor Road BPM Nostalgia Type 1 & 2	Revised	1-6-3
8042	Minor Road BPM Pole Single Double Outreach	Revised	1-6-4
8046	Major Road MA1 1.5m Bracket	Revised	1-7-3
8047	Major Road MA2 3.0m Bracket	Revised	1-7-4
8048	Major Road MA3 4.5m Bracket	Revised	1-7-5
8049	Major Road MA4 3.0m Bracket	Revised	1-7-6
8050	Major Road MA5, 6, 7 Curved Bracket	Revised	1-7-7
8051	Minor Road MI1 1.2m Bracket	Revised	1-8-3
8055	Stabilised Backfill Foundations	Revised	1-3-7
8063	Minor Road MI2 3.0m Bracket	Revised	1-8-4
8064	Minor Road Luminaire Glare Shield	Revised	1-3-3
8065	Major/Minor Road Luminaire Glare Shield	Revised	1-3-4
8066	Minor Road Luminaire Stone Guard	Revised	1-3-5
8068	Site ID Label to Steel & Conc Poles	Revised	1-3-6
8069	Site ID Label to Estate Pole	Revised	1-3-6

EGX REF	DESCRIPTION	COMMENT	NEW REF

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LIGHTING
INTRODUCTION
EGX LEGACY DRAWING CROSS REFERENCE

EE DRWG NO: 1-1-1-3
EGX DRWG NO: 10500-A4-1-1-1-3

VOLUME	FOLDER	PAGE	ISSUE
1	1	1-3	0B

NEW REF	DESCRIPTION	COMMENT
1-2-828	Major Road SBM Steel Pole	
1-2-829	Major Road Hold Down Bolt Cages	
1-2-831	EE Sign, Asset ID Number to Pole	EE Only
1-2-832	Major Road SBM Terminal Panel	
1-2-833	Major/Minor Road BPM & BIG UG Pit Looping	
1-2-834	"Metered" ID Sign Attachment to Pole	
1-2-835	"Rate 3" ID Sign Attachement to Pole	
1-2-836	EE MI1, 2 & MA1, 2 Insulating Bracket	EE only for Conc Pole
1-2-837	EE MA3 & MA4 Insulating Bracket	EE only for Conc Pole
1-2-839	Major Road 500 PCD BPM Pole Foundation	
1-2-840	Minor Road Cast in Situ Foundation	
1-2-841	Major Road Aeroscreen Luminaires	
1-2-842	Major Road Precast Foundation 350 PCD	
1-2-843	Minor Road Nostalgia Type 2 Luminaire	
1-2-844	Minor Road Nostalgia Type 2 Dual Bracket	
1-2-845	Minor Road 0.5m MI3 Bracket	
1-2-846	EE Major Road PedX Floodlight Outreach Extension	EE Only
1-2-847	Major/Minor Road 0.3m PT Bracket	
1-2-848	PedX Floodlight S250, S400	
1-2-849	PedX Floodlight Control Box	
1-2-851	Energex High Mast 1 & 2 Way Outreach	EGX Only
1-2-852	Energex High Mast 3 & 4 Way Outreach	EGX Only
1-2-853	Energex High Mast Luminaire, Lamp, PE	EGX Only
1-2-854	Energex Major Road BPM Mid Hinged Pole	EGX Only
1-2-855	Minor Road Precast Foundation	
1-2-856	Joint Use Traffic Light Supply Box	
1-2-858	Energex Minor Road Mid Hinged BPM 4 Bolt	EGX Only
1-2-863	Watchman Floodlight Wood Pole	
1-2-864	Watchman Floodlight Steel & Conc Pole	
1-2-865	Watchman Floodlight Anti Vandal Guard	
1-2-867	Major Road Connection SBM to Pit 3 Phase	
1-2-870	Energex Bulkhead Luminaires S70 & M50	EGX Only
1-2-872	Minor Road BPM Steel Poles	
1-2-873	EE Sign Asset ID Numerals & Letters	EE Only
1-2-874	EE Sign Asset ID Label Tray	EE Only
1-2-875	SL32A Label for Service Fuse	
1-2-876	Alt Unmetered Supply from Pole Term	
1-2-880	Energex Pole IDs Wood, Conc, Steel	EGX Only
1-2-883	Watchman Floodlight Circuit Breaker	
1-2-884	Customer's Property Pole Label	EGX Only
1-2-887	Single Phase SBM Supply from Pit	
1-2-888	3 Phase SBM Supply from Pit	
1-2-890	Minor Road Nostalgia Type 2 Luminaire	No Bracket

NEW REF	DESCRIPTION	COMMENT
1-2-891	Energex PedX Floodlight PF1 Bracket	EGX Only
1-2-892	Energex PedX Floodlight PF2 Bracket	EGX Only
1-2-893	Energex PedX Floodlight PF3 Bracket	EGX Only
1-2-894	Energex Major Road Special Single Outreach	EGX Only
1-2-895	Energex Major Road Special Dual Outreach	EGX Only
1-2-896	Energex Minor Road Special Single Outreach	EGX Only
1-2-897	Energex Cable Attachment to Xarms	EGX Only
1-2-898	Energex Underbridge Bracket	EGX Only
1-2-899	Energex Special Bulkhead Luminaire	EGX Only
1-3-6-3	Attach "Rate 3" Site ID Label to Pole	Install Instructions
1-3-8-1	Term of 16mm² & 4mm² NS Cable	EE Only
1-3-9-1	PedX Floodlight Aiming Details	
1-3-9-2	PedX Floodlight Aiming Details	
1-3-10-1	Supply Pit Relative to Pole	Physical Setup
1-3-11-1	Access for Vehicles on Roundabouts	
1-3-11-2	Access for Vehicles on Roundabouts	
1-3-12-1	Energex Pole Labelling Practices	EGX Only
1-3-12-2	Energex Pole Labelling Practices	EGX Only
1-3-12-3	Energex Pole Labelling Practices	EGX Only
1-3-13-1	High Mast Headframe Details 1 & 2 Way Outreach	EGX Only Material
1-3-13-2	High Mast Headframe Details 1 & 2 Way Outreach	EGX Only Construction
1-3-14-1	Structure & OH Line Clearance	
1-3-14-2	Structure & OH Line Clearance SBM	Dynamic Clearance
1-3-15-1	Major Road Mid Hinged BPM Erection	EGX Only
1-3-15-2	Major Road Mid Hinged BPM Install Notes	EGX Only
1-3-16	Major/Minor Road Conduit Access Across Road	EGX Only
1-3-17	Pit Install General Arrangement	EGX Only
1-4-8-1	1 & 3 Phase service SBM Steel Pole from LV Pit	
1-4-9-1	Major/Minor Road Cable Looping from LV Pit	
1-4-10-1	Service Cable Stock Code Details	
1-4-11-1/2	Unmetered UG Supply Non Standard Luminaire	
1-4-12-1/2	Unmetered OH Supply Non Standard Luminaire	
1-4-13-1/2	Unmetered OH Supply Arrangement	EGX Only
1-4-14-1/2	Metered UG Supply	EGX Only
1-4-15-1	Streetlight Service from Pillar	Materials & Construction
1-5-6-1	Major Road BPM UG Service, Single & Double OR	Material
1-5-6-2	Major Road BPM UG Service, Single & Double OR	Construction
1-5-9-1	Major Road SBM UG Service, Single & Double OR	Material
1-5-9-2	Major Road SBM UG Service, Single & Double OR	Construction
1-5-9-3	Major Road SBM Footing No Crossfall	Notes
1-5-9-4	Major Road SBM Footing No Crossfall	Construction
1-5-9-5	Major Road SBM Footing Crossfall Not > 1:6	Notes
1-5-9-6	Major Road SBM Footing Crossfall Not > 1:6	Construction

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LIGHTING
INTRODUCTION
NEW DRAWING REFERENCE

EE DRWG NO: 1-1-1-4

EGX DRWG NO: 10500-A4-1-1-1-4

VOLUME	FOLDER	PAGE	ISSUE
1	1	1-4	0B

NEW REF	DESCRIPTION	COMMENT
1-5-9-7	Major Road SBM Footing Crossfall 1:6>X>1:3	Notes
1-5-9-8	Major Road SBM Footing Crossfall 1:6>X>1:3	Construction
1-5-9-9	Major Road SBM Connection Wiring Detail	Construction
1-5-10-1	Energex High Mast UG BPM Pole	EGX Only Material
1-5-10-2	Energex High Mast UG BPM Pole	EGX Only Construction
1-5-11-1	Energex High Mast OH BPM Pole	EGX Only Material
1-5-11-2	Energex High Mast OH BPM Pole	EGX Only Construction
1-5-12-1	Energex High Mast UG BIG Pole	EGX Only Material
1-5-12-2	Energex High Mast UG BIG Pole	EGX Only Construction
1-5-13-1	Energex High Mast UG SBM Pole	EGX Only Material
1-5-13-2	Energex High Mast UG SBM Pole	EGX Only Construction
1-5-14-1	Energex Mid Hinged High Mast UG BPM Pole	EGX Only Material
1-5-14-2	Energex Mid Hinged High Mast UG BPM Pole	EGX Only Construction
1-5-14-3	Energex Mid Hinged High Mast UG BPM Pole	EGX Only Notes
1-5-16-1	BIG Pole Typical Installation Details	EGX Only Construction
1-5-17-1	Energex Major Road PedX Combo Streetlight PF-2	EGX Only Material
1-5-17-2	Energex Major Road PedX Combo Streetlight PF-2	EGX Only Construction
1-5-18-1	Energex Major Road Special Single & Dual OR	EGX Only Material
1-5-18-2	Energex Major Road Special Single & Dual OR	EGX Only Construction
1-5-19-1	Energex Major Road PedX Combo Streetlight PF-1	EGX Only Material
1-5-19-2	Energex Major Road PedX Combo Streetlight PF-1	EGX Only Construction
1-5-20-1	SBM Footing Crossfalls between 1:6 & 1:1.5	Notes
1-5-20-2	SBM Footing Crossfalls between 1:6 & 1:1.5	Construction
1-5-21-1	BIG Pole - Footing / Erection Details	EGX Only
1-6-5-1	Energex Minor Road Nostalgia Double Outreach	EE Only Material
1-6-5-2	Energex Minor Road Nostalgia Double Outreach	EE Only Construction
1-6-6-1	Minor Road Mid Hinged BPM w / Integral 0.5m OR	Material
1-6-6-2	Minor Road Mid Hinged BPM w / Integral 0.5m OR	Construction
1-6-7-1	Minor Road BPM 6.5m w / Integral 0.5m Outreach	Material
1-6-7-2	Minor Road BPM 6.5m w / Integral 0.5m Outreach	Construction
1-6-8-1	BIG Footing / Erection, Minor Road	Construction
1-7-3-1	Major Road MA1 1.5m Bracket	Material
1-7-3-2	Major Road MA1 1.5m Bracket	Construction
1-7-4-1	Major Road MA2 3.0m Bracket	Material
1-7-4-2	Major Road MA2 3.0m Bracket	Construction
1-7-5-1	Major Road MA3 4.5m Bracket	Material
1-7-5-2	Major Road MA3 4.5m Bracket	Construction
1-7-6-1	Major Road MA4 3.0m Bracket	Material
1-7-6-2	Major Road MA4 3.0m Bracket	Construction
1-7-7-1	Major Road MA5, 6, 7 Curved Bracket	Material
1-7-7-2	Major Road MA5, 6, 7 Curved Bracket	Construction
1-7-8-1	Major Road 0.3m PT Bracket	Material
1-7-8-2	Major Road 0.3m PT Bracket	Construction

NEW REF	DESCRIPTION	COMMENT
1-7-9-1	Major Road PedX Floodlight MA1 / MA2 Bracket	Material
1-7-9-2	Major Road PedX Floodlight MA1 / MA2 Bracket	Construction
1-7-10-1	Major Road MA1 & MA2 Brackets Concrete Pole	Material
1-7-10-2	Major Road MA1 & MA2 Brackets Concrete Pole	Construction
1-7-11-1	Major Road MA3 4.5m Bracket Concrete Pole	Material
1-7-11-2	Major Road MA3 4.5m Bracket Concrete Pole	Construction
1-7-12-1	Major Road MA4 3.0m Bracket Concrete Pole	Material
1-7-12-2	Major Road MA4 3.0m Bracket Concrete Pole	Construction
1-8-3-1	Minor Road MI1 1.2m Bracket	Material
1-8-3-2	Minor Road MI1 1.2m Bracket	Construction
1-8-4-1	Minor Road MI2 3.0m Bracket	Material
1-8-4-2	Minor Road MI2 3.0m Bracket	Construction
1-8-5-1	Minor Road MI3 0.5m Bracket	Material
1-8-5-2	Minor Road MI3 0.5m Bracket	Construction
1-8-6-1	Minor Road MI1 & MI2 Bracket Concrete Pole	Construction
1-9-3-1	Watchman Floodlight LVABC OH Wood	Construction
1-9-4-1	Watchman Floodlight OH Steel, Concrete Pole	Construction
1-9-5-1	Watchman Floodlight UG Steel, Concrete Pole	Construction
1-9-6-1	Watchman Floodlight OH Customer Pole	Construction
1-9-7-1	Ped X'ing Floodlight UG Service BPM Pole	Material
1-9-7-2	Ped X'ing Floodlight UG Service BPM Pole	Construction
1-9-8-1	Ped X'ing Floodlight OH Service BPM Pole	Material
1-9-8-2	Ped X'ing Floodlight OH Service BPM Pole	Construction
1-9-9-1	Ped X'ing Floodlight UG Service BIG Pole	Material
1-9-9-2	Ped X'ing Floodlight UG Service BIG Pole	Construction
1-9-10-1	Ped X'ing Floodlight OH Service BIG Pole	Material
1-9-10-2	Ped X'ing Floodlight OH Service BIG Pole	Construction
1-9-11-1	Ped X'ing Floodlight Dual Outreach UG BPM	Material
1-9-11-2	Ped X'ing Floodlight Dual Outreach UG BPM	Construction
1-10-3-1	Energex Approved Telstra Mobile Antennas	EGX Only
1-10-3-2	Energex Approved Telstra Mobile Transceivers	EGX Only
1-10-3-3	Energex Telstra Mobile Field Notes	EGX Only
1-10-3-4	Energex Telstra Mobile Field Notes	EGX Only
1-10-4-1	Energex Telstra Mobile Install	EGX Only
1-10-5-1	Energex Mobile BIG / BPM Cabling Unpowered	EGX Only
1-10-6-1	Energex Telstra Mobile BPM Cabling Powered	EGX Only
1-10-6-2	Energex Telstra Mobile BPM Cabling Powered	EGX Only
1-10-7-1	Energex Mobile Pole Wiring Details Powered	EGX Only
1-10-7-2	Energex Mobile Pole Wiring Details Powered	EGX Only
1-10-8-1	Major Road Joint Use Traffic Light UG Service	Material
1-10-8-2	Major Road Joint Use Traffic Light UG Service	Construction
1-11-3-1	Energex Special Bulkhead Luminaire S150	EGX Only Construction
1-11-4-1	Energex Bulkhead Luminaires H70 & M50	EGX Only Construction

A	ORIGINAL ISSUE	
B	12.09.13	

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Approved Energex	F. Zaini	21/03/14
Checked	P. Relf / A. Bletchly	21/03/14
Drawn	L. Burton / T. Borg	14/10/10

LIGHTING
INTRODUCTION
NEW DRAWING REFERENCE

EE DRWG NO: 1-1-1-5

EGX DRWG NO: 10500-A4-1-1-1-5

VOLUME	FOLDER	PAGE	ISSUE
1	1	1-5	0B

NEW REF	DESCRIPTION	COMMENT
1-12-3-1	Minor Road PE Cell Conv OH Supply	EGX Only
1-12-4-1	Minor Road PE Cell Conv OH Supply	EGX Only
1-12-5-1	Major/Minor Road PE Cell Conv No PE	EGX Only
1-12-6-1	Major/Minor PE Cell Conv With PE	EGX Only
1-12-7-1	Major/Minor PE Cell Conv With PE	EGX Only
1-12-8-1	Minor Road 1 Phase Control Light Main	EGX Only
1-12-9-1	Major/Minor Road 1, 2 & 3 Phase Contactor	EGX Only
1-13-3-1	Zellweger S/L Relay Box Wiring	EGX Only
1-13-4-1	S/L Contactor Box Wiring	EGX Only
1-13-5-1	Luminaire Control Gear Wiring	EGX Only
1-13-6-1	Joint Use S/L Box Wiring	EGX Only

NEW REF	DESCRIPTION	COMMENT

A	ORIGINAL ISSUE	
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LIGHTING
INTRODUCTION
NEW DRAWING REFERENCE

EE DRWG NO: 1-1-1-6

EGX DRWG NO: 10500-A4-1-1-1-6

VOLUME	FOLDER	PAGE	ISSUE
1	1	1-6	0B

CONSTRUCTION SCHEDULE

Ergon 3.3 Object Name	Ergon EO 4.3.4 Object Name	Construction Class
Pole	Pole	Pole
Pit	Pit	Pit
GMS Site	Pad	Pad
Tower	Tower	Tower
Fiska Box (or) Pillar	Pedestal	Comms Supply Cabinet
		Normal Pillar
		Link Pillar
		Cross Road Pillar
		Distribution Cabinet
		Commercial / Industrial
		Lid Pit
Pole Equipment	Cross Arm	Cross Arm
Pole Equipment	General Equipment	General Equipment
Bridge	General Equipment	General Equipment
Aerial Stay	Guy	Aerial Stay
Stay	Guy	Stay
Dist. Generation System	Energy Source	Distributed Generation
Generator	Energy Source	Power Station Generator
Earth Switch	Isolating Equipment Installation	Earth
HV Isolating Device	Isolating Equipment Installation	Switch
LV Isolating Device	Isolating Equipment Installation	Switch
TR Isolating Device	Isolating Equipment Installation	Switch
HV Spacer	Line Spacer	Line Spacer
LV Spacer	Line Spacer	Line Spacer
TR Spacer	Line Spacer	Line Spacer
Warning Device	Marker	Marker

CONSTRUCTION SCHEDULE

Ergon 3.3 Object Name	Ergon EO 4.3.4 Object Name	Construction Class
Transformer	Power Transformer Installation (or) 3w Power Transformer Installation	Step
		Metering Unit
		Voltage
		SWER Isolator
		Distribution
		Current
		Earthing
		Load Control
		Local Supply
		Power
		Regulator
		Power
Reactor	Regulating Equipment Installation	Reactor
Capacitor	Regulating Equipment Installation	Capacitor
Dist. Generation Site	Substation	Substation
Substation	Substation	Substation
Zone Substation Site	Substation (merged)	Not in EO Model
Substation	Composite Switch (RMUs)	Composite Switch
SWER Delimiter	Connector Point Installation	SWER Delimiter
Earth	Connector Point Installation	Earth
Earth Cable Joint	Connector Point Installation	Cable Joint
HV Cable Joint	Connector Point Installation	Cable Joint
HV Cable Termination	Connector Point Installation	Termination
LV Cable Joint	Connector Point Installation	Cable Joint
LV Cable Termination	Connector Point Installation	Termination
TR Cable Joint	Connector Point Installation	Cable Joint
TR Cable Termination	Connector Point Installation	Termination
Measuring Device	Substation	Substation
Fault Throw Switch	Substation	Substation
Surge Diverter	Substation (merged)	Not in EO Model
Protection	Composite Switch (RMUs)	Composite Switch

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Checked	P. Relf / A. Bletchly	01/04/17
Drawn	L. Burton / T. Borg	02/02/17

LIGHTING

INTRODUCTION - ERGON ENERGY ONLY
EO TERMINOLOGY CHANGES

EE DRWG NO: 1-1-3-1
EGX DRWG NO: 10500-A4-1-1-3-1

VOLUME	FOLDER	PAGE	ISSUE
1	1	3-1	0A

COMMS LINE & CABLE SCHEDULE

Ergon 3.3 Object Name	Ergon EO 4.3.4 Object Name	Construction Class
Communications Cable	Communications Cable	Communications Cable
Communications Line	Communications Line	Communications Line

COMMS CONSTRUCTION SCHEDULE

Ergon 3.3 Object Name	Ergon EO 4.3.4 Object Name	Construction Class
Communications Joint	Communications Joint	Communications Joint
Communications Pit	Communications Pit	Communications Pit
Communications Site	Communications Site	Communications Site
Communications Equip.	Communications Equip.	Communications Equip.

CONDUIT DUCTING SCHEDULE

Ergon 3.3 Object Name	Ergon EO 4.3.4 Object Name	Construction Class
Duct	Conduit	Not visible in Schedule

PUBLIC LIGHT SCHEDULE

Ergon 3.3 Object Name	Ergon EO 4.3.4 Object Name	Construction Class
Streetlight	Light	Not visible in Schedule

UNDERGROUND CABLE SCHEDULE

Ergon 3.3 Object Name	Ergon EO 4.3.4 Object Name	Construction Class
HV Cable	Cable Segment	Not visible in Schedule
LV Cable	Cable Segment	Not visible in Schedule
TR Cable	Cable Segment	Not visible in Schedule
Earth Cable	Cable Segment	Not visible in Schedule

OVERHEAD CONDUCTOR SCHEDULE

Ergon 3.3 Object Name	Ergon EO 4.3.4 Object Name	Construction Class
HV Line	Wire Segment	Not visible in Schedule
LV Line	Wire Segment	Not visible in Schedule
TR Line	Wire Segment	Not visible in Schedule
Aerial Earth Wire	Wire Segment	Not visible in Schedule

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