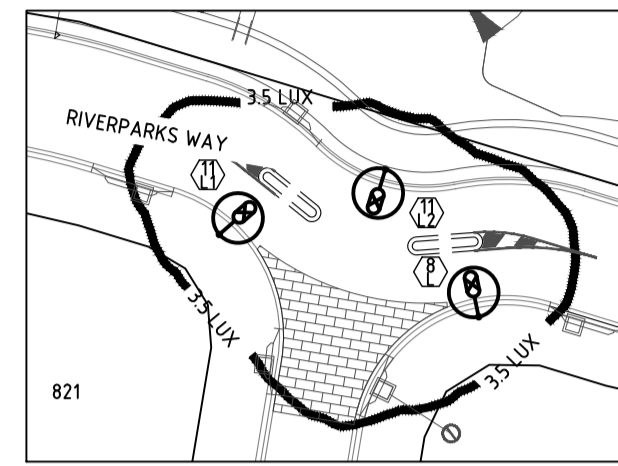


RATE 2 STREETLIGHT SCHEDULE																						
LOCATION	STN No	SITE ID (POLE No)	POLE or COMPONENTS						LANTERN						OUTREACH BRACKET			MOUNT HEIGHT (m)	REMARKS			
			COMP ID	EXIST (m)	REC (m)	ERECT (m)	SLM or IIN	ALIGN (m)	COMP ID	EXIST	RECOVER LUMIN	CUST	DATE DE-ENERG	ERECT LUMIN	CUST	DATE ENERG	SLM or IIN			EXIST (m)	REC (m)	ERECT (m)
RIVERPARKS WAY	4L	P2169746	PO 1		4.58PM	SLNOS2CI	0.9BK	SL 1				SLEDGL01706	MBAY		SLN2L17						5.1	
	6L	P2169747	PO 1		4.58PM	SLNOS2CI	0.9BK	SL 1				SLEDGL01706	MBAY		SLN2L17						5.1	
	8L	P2169748	PO 1		4.58PM	SLNOS2CI	0.9BK	SL 1				SLEDGL02506	MBAY		SLN2L25						5.1	
	11L1	P2169749	PO 1		4.58PM	SLNOS2CI	0.9BK	SL 1				SLEDGL02506	MBAY		SLN2L25						5.1	
WOODFERN DR	11L2	P2169750	PO 1		4.58PM	SLNOS2CI	0.9BK	SL 1				SLEDGL02506	MBAY		SLN2L25						5.1	
	16L	P2169751	PO 1		4.58PM	SLNOS2CI	0.9BK	SL 1				SLEDGL01706	MBAY		SLN2L17						5.1	

ISSUE FOR ENERGEX ACCEPTANCE ONLY
NOT FOR CONSTRUCTION
 This drawing is to be considered preliminary until this disclaimer is removed by Peter Eustace Pty. Ltd.



ILLUMINANCE PLOT
15000@A1

ELECTRICAL / STREET LIGHT CERTIFICATION

THIS IS TO CERTIFY THAT THE DESIGN OF ENERGEX RETICULATION IS IN ACCORDANCE WITH ENERGEX DESIGN MANUALS AND WORK CATEGORY SPECIFICATION 47.1 & 47.3 WHERE APPLICABLE.

ROAD LIGHTING CERTIFIED TO COMPLY WITH AS/NZS 1158 FOR 'V' & 'P' CATEGORY LIGHTING FOR ROADS & PUBLIC SPACES SUPPLIED UNDER ENERGEX CONTRACT. THE LIGHTING DESIGN IS BASED UPON THE FOLLOWING MAINTENANCE SCHEDULE:

- * LAMP REPLACEMENT AT 36 MONTH INTERVALS INC. CLEANING & INSPECTION OF LUMINAIRE.
- * VEGETATION TO BE KEPT CLEAR OF LUMINARIES.
- * INSPECTION PATROLS & SPOT LAMP REPLACEMENT TO MAINTAIN SERVICE AVAILABILITY AT MIN. 95%.
- * LUMINARIES & LAMPS TO BE REPLACED WITH EXACT EQUIVALENTS.

STREET NAME: WOODFERN DR, RIVERPARKS WAY
 LIGHTING CATEGORY: P4, P4

PETER CAUNE (RPEQ 5076) [Signature]
 DATE: 18/10/18



LOCALITY PLAN
15000@A1

- SYMBOL LEGEND**
- PROPOSED 40mm S/L
 - PROPOSED ENERGEX 100mm COMMS
 - PROPOSED 100mm
 - ⊗ PROPOSED 125mm
 - EXISTING 40mm S/L
 - EXISTING ENERGEX 100mm COMMS
 - EXISTING 100mm
 - ⊗ EXISTING 125mm
 - PROPOSED CABLE (AS MARKED)
 - EXISTING CABLE (AS MARKED)
 - PROPOSED UNDERGROUND HV/LV ROUTE
 - EXISTING UNDERGROUND HV/LV ROUTE
 - PROPOSED OVERHEAD HV/LV ROUTE
 - EXISTING OVERHEAD HV/LV ROUTE
 - PROPOSED S/L CABLE
 - EXISTING S/L CABLE
 - ⊗ PADMOUNT TRANSFORMER
 - ⊗ PMT LV GEOGRAPHIC
 - ⊗ PMT HV GEOGRAPHIC
 - ⊗ RING MAIN UNIT
 - ⊗ RMU HV SCHEMATIC
 - PROPOSED SUPPLY PILLAR
 - EXISTING SUPPLY PILLAR
 - PROPOSED LINK PILLAR
 - EXISTING LINK PILLAR
 - COMMERCIAL PILLAR
 - ⊕ EARTH
 - PROPOSED TYPE 4 PIT
 - EXISTING TYPE 4 PIT
 - ⊗ RECOVER EQUIPMENT
 - ⊗ 11kV STRAIGHT JOINT
 - OVERHEAD POLE (HV TRANSFORMER)
 - OVERHEAD POLE (HV ONLY)
 - OVERHEAD POLE (LV ONLY)
 - OVERHEAD POLE (HV & LV)
 - OVERHEAD HV TERMINATION
 - OVERHEAD LV TERMINATION
 - AIR BREAK SWITCH (OPEN)
 - AIR BREAK SWITCH (CLOSED)
 - DISCONNECT LINKS (OPEN)
 - DISCONNECT LINKS (CLOSED)
 - WATER METER
 - SURVEY PEG

MAINTENANCE REGIME

Maintenance Factor Assumed: The maintenance factor assumed in the calculations is as follows:
 * Luminaire Maintenance Factor (refer AS 1158 1.1:2005 APPENDIX E).
 * Lamp Lumen Depreciation Factor (Refer Lamp Manufacturer's "Lamp Lumen Depreciation Curves").

Maintenance Factor Calculated: **0.8**

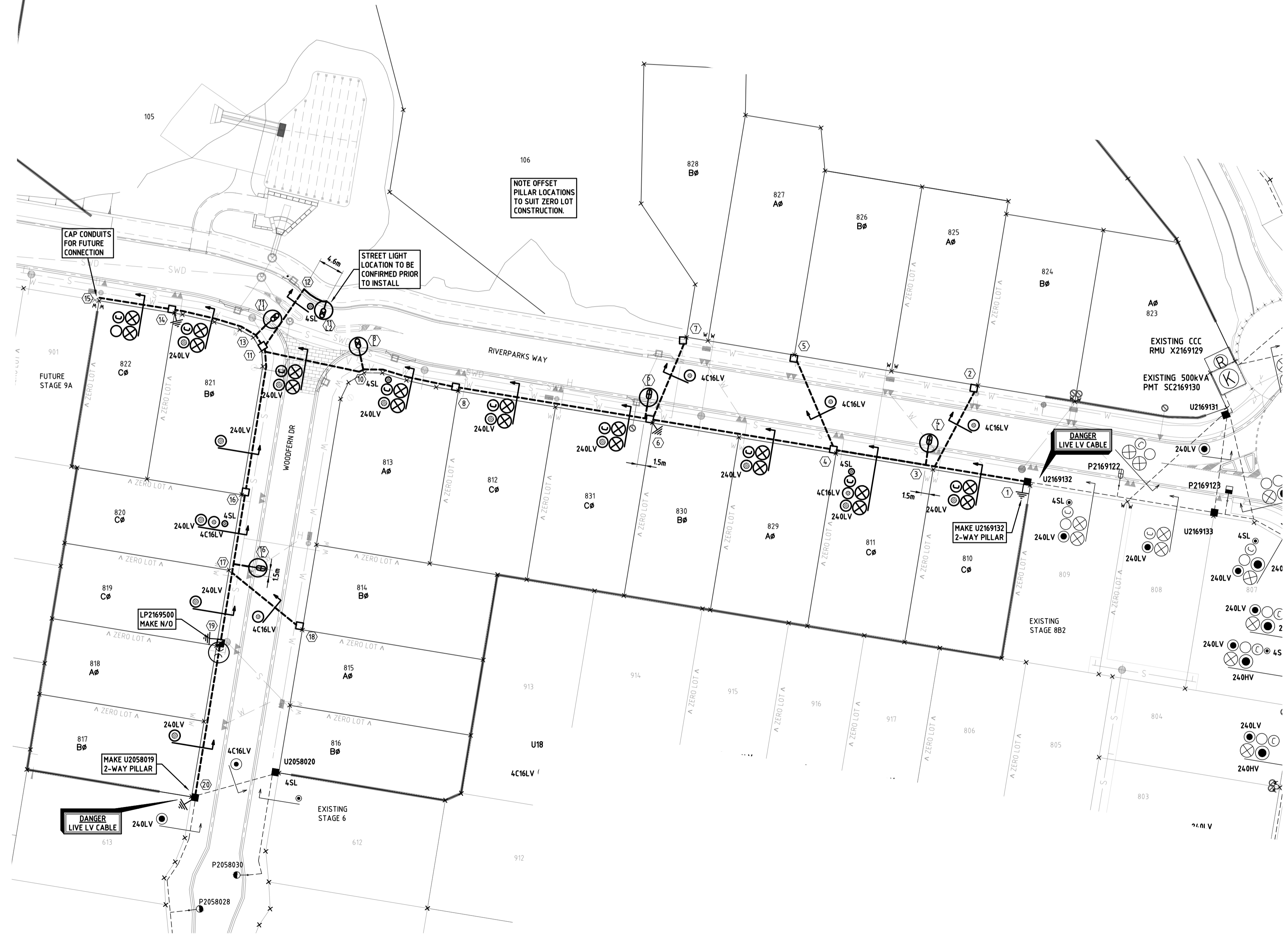
Schedule of Maintenance: This road lighting design is based on the following maintenance schedule:
 Bulk lamp replacement carried out at 36 month intervals. At this time the following shall also occur:
 * All optical surfaces, both internal and external, of the luminaire shall be cleaned.
 * All gaskets shall be checked for deterioration and replaced where necessary.
 * Damaged/weathered visors shall be replaced.
 * All accessible screws, nuts etc. shall be checked for tightness.
 * A visual check shall be made of the electrical components and wiring for signs of overheating.
 * If required, the luminaire shall be realigned/adjusted to the design specification.

CERTIFICATE OF COMPLIANCE

DESIGN DOCUMENTATION IN ACCORDANCE WITH THE REQUIREMENTS OF COMPLIANCE OF AS/NZS 1158

* Refer AS1158.1:2005 Appendix D for information regarding V category
 * Refer AS1158.3:2005 Appendix E for information regarding P category
 * PerfectLite 5.08 computer software used

ITEM	PROJECT SPECIFICATION	
LIGHTING CATEGORY		
Road Name	RIVERPARKS WAY & WOODFERN DRIVE	RIVERPARKS WAY & WOODFERN DRIVE
Nominated Lighting Category	P4	P4
Road Surface Reflection Characteristic	R3	R3
INSTALLATION GEOMETRY		
Road Reserve Lighting Design Width	15-16m	16m
Mounting Height	5.1m	5.1m
Overhang	0	0
Lighting Arrangement	ARR1	ARR1
Pole Setback	0.9 BK1	0.9 BK1
Uplight Angle	0°	0°
LUMINAIRE/LAMP 1 DETAILS		
Lamp Type / Wattage	LED18	LED25
Luminaire Identification	Sylvania StreetLED 4K	Sylvania StreetLED 4K
Lamp Flux (Lumens)	2100	2354
I-Table Number (cie)	214201	213374
Lighting Tariff (U ₁)	3	3
Power Factor	HPF (>0.95)	HPF (>0.95)
Start/Run Currents (Amps)	0.1	0.12
IP Rating	IP68	IP68
CATEGORY Px LUMINAIRE/LAMP 1 MAXIMUM SPACING CALCCS		
Average Horizontal Illuminance (E _a)	≥0.85 lx	≥0.85 lx
Minimum Point Horizontal Illuminance (E _p)	≥0.14 lx	≥0.14 lx
Illuminance Uniformity (U ₁)	≥10	≥10
Upward wasted light ratio (UWL _R) %	≤2.8%	≤2.8%
Road Reserve Lighting Design Width (m)	Maximum Spacing (m)	Maximum Spacing (m)
	13	66.4
	16.5	64.8



DATE	DESCRIPTION
24.01.18	ISSUE FOR COUNCIL & ENERGEX ACCEPTANCE FOR CONSTRUCTION
19.02.18	REVISED ISSUE FOR CONSTRUCTION ONLY. NOT FOR CONSTRUCTION.
18.10.18	REVISED ISSUE FOR ENERGEX ACCEPTANCE ONLY. NOT FOR CONSTRUCTION.

PETER EUSTACE & ASSOCIATES
 ELECTRICAL • MECHANICAL • FIRE • LIFTS

STREET ADDRESS: Unit 14, 39-41 Inverness Dr, Newburg QLD 4211
 POSTAL ADDRESS: PO Box 2835, Newburg QLD 4211
 TELEPHONE: (07) 5596 1425
 EMAIL: mail@petereustace.com.au

17-1804-01

SITE CONTACT DETAILS	STANDARD COUNCIL ALIGNMENTS	WORKS COORDINATOR	PETER EUSTACE & ASSOCIATES	APPROVED	PETER CAUNE
NAME: Energex OH	3.2m RP	PARENT PROJECT NO.		CHECKED	DAVID PRUSS
TBC: Energex UG	0-0.9m RP	WORK REQUEST NO.		DESIGNER	JUAN GONZALEZ
COMPANY: NBN	Joint Use	LOTS	810-831	PLANNER	DAVID VAN GENT
PHONE: -	GAS REFER CIVIL	CANCELLING LOTS	LOT 102 ON SP297696	PHONE	(07) 5596 1425
MOBILE: -	HP GAS REFER CIVIL			PHONE	(07) 5596 1425
FAX: -	WATER REFER CIVIL	LOCAL AUTHORITY	MORETON BAY REGIONAL COUNCIL	ISSUE DATE	18 OCTOBER 2018
	STORMWATER REFER CIVIL	UBD REF			
	SEWERAGE REFER CIVIL	PEGGED?			
	OTHER REFER CIVIL				

Peter Eustace & Associates

INSTALL HV & LV CONDUITS AND LV CABLES, PILLARS, STREET LIGHTS

22 LOT SUBDIVISION
 RIVERPARKS STAGE 8A, 8C & 8B3
 RIVERPARKS WAY, UPPER CABOOLTURE

WORKSPLAN VERSION 5.5
 SCALE: 1:500@A1
 PROJECT / SUB PROJECT NO.
S1300883

Sheet 1 of 2
 ISSUE NO: C

