SPARK – North East Link – Primary Package

Inspection and Test Plan (ITP)

ITP Title: Street Lighting Installation

ITP Number: NEL-CNT-SDC-2990-PQA-ITP-0068 Rev 0

LOT Number: _____

Primary Asset Location Code: _____

Discipline: _____

OFFICIAL: Sensitive

Spark NELP Approval Record

Function	Position	Name	Signature	Date
Prepared By	Quality Representative	Joe Failla	Joe Failla Digitally signed by Joe Failla Date: 2022.10.28 15:38:01 +11'00'	
Reviewed By	Project Engineer	Geoffrey Britto		28/10/22
Approved By	Zone Quality Manager	Greg Iro	Digitally signed by Greg Iro Date: 2022.10.28 15:31:50 +11'00'	

Note:

1. *Ensure all Records or Checklist References are attached and that each Inspection Requirement is clearly named, signed, and dated.*
2. *Ensure every Records or Checklist References attached are legible*
3. *This Inspection Test Plan may be generic – ensure the requirement is demographically clear to your scope of work*
4. *Verification Inspections where applicable for the IREA stated as "Witness" or "Hold" shall be formally notified for their engagement and with sufficient advance notice time (i.e. 3 days or as agreed with the Sub-IREA Representative and/or the Nominated Authority)*
5. *All Nominated Authority Hold Points are Witness Points for Sub-IREA*
6. *The Sub-IREA representative is not required to physically sign-off on ITPs*

INSPECTION AND TEST PLAN (ITP)

	Project: SPARK – North East Link Primary Package **Client:** State of Victoria and the North East Link State Tolling Corporation
ITP Title: Street Lighting Installation **Description:** This ITP covers Street Lighting Installation on Spark sites	**References:** VicRoads Specification 731, PSDR **Standards:**
ITP No: NEL-CNT-SDC-2990-PQA-ITP-0068 **Rev No**: 0	
Lot No:..... **Location**:..... **Ch**:..... **to**..... **Offset**:..... **to**..... **Layer**:	

Item No.	Resp. Person	Inspection and Test Activity	Specification Reference	Acceptance Criteria	Test Method	Test Freq.	Inspection/Verification (Name, signature & date)				Records/ Documents	Field Notes / Comments
							Sub-Contractor	Spark NEL Engineer	Nominated Authority	IREA		
1.0	**Preliminaries (Include all aspects of Materials, Approvals, IFC Drawings, etc. Ensure all required permits have been raised prior to commencing works)**											
1.1	PE	IFC Drawings Issued	PSDR Part F6	IFC Drawings, approved plans, technical specification issued for construction	V	PW	NR	HP	NR	NR	IFC Drawings	
1.2	PE	Approved Methodology	Construction Package	All required documents are approved Lot area is clearly defined	R	PW	NR	WP	NR	NR	Construction Package	
1.3	PE	Survey Set Out	IFC Drawings	Setout points are in accordance with IFC drawings and specifications. Light pole location is set out by surveyor as per the lighting schedule	R	PW	NR	WP	NR	NR	Survey Record	
1.4	PE	All equipment calibrated (NATA Approved)	VicRoads 731.06	All equipment associated with relevant works are calibrated Torque Wrench used to tighten the bolts and nuts shall hold a current calibration certificate not more than 12 months old.	R	PW	NR	WP	NR	NR	Calibration Certificate	
1.5	PE	Material Conformance	VicRoads 731 AS 3000 AS 4680 IFC Drawings	All materials supplied on-site are free of defects and damage Light poles are VicRoads approved and comply with VicRoads section 731 Galvanizing to comply with AS4680 (certificates to be provided)	V	PW	NR	HP	NR	NR	PDS, Manuf. Specif.ns DD's Galvanizing Certificates / Test Reports	
1.6	PE	Electrical Contractor	VicRoads 731.11	Electrical contractor is a VicRoads Electrical Contractor, in accordance with: - Part 3 of the Electrical Safety Act 1998 - Electrical Safety Regulations 2009 Electrical contractor is also prequalified within the VicRoads prequalification scheme at the level of STCE	R	PW	NR	WP	NR	NR	Registered Electrical Contractor Certificate	
2.0	**Operations (Include Work Execution – Installation / Manufacturing Process step-by-step)**											
2.1	SE	Wiring Works	VicRoads 731.08, 731.10, 731.11,(g) IFC Drawings	All electrical works conform to AS/NZS 3000 and Energy Safe Victoria	V	PL	WP	WP	NR	NR	This ITP	

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References: VicRoads Specification 731, PSDR

Standards:

ITP No: NEL-CNT-SDC-2990-PQA-ITP-0068 **Rev No**: 0

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							Sub-Contractor	Spark NEL Engineer	Nominated Authority	IREA		
2.2	SE	Power Supply Conduits	VicRoads 731.08, 731.10, 731.11(g) IFC Drawings	Power supply installed in accordance with AS/NZS 3000 Supply conduits located at least 1200mm below FSL of any freeway/highway or arterial road At least 600mm below FSL in other locations	V	PL	WP	WP	NR	NR	This ITP	
2.3	SE	Earthing requirements	VicRoads 731.11 IFC Drawings	All poles individually earthed to earth cable in the pit of frangible poles or in the pole of rigid poles	I	PL	WP	WP	NR	NR	Each pole	
2.4	SE	Trunk Cabling	VicRoads 731.11 (h)	A minimum of 2m of spare cable is coiled and left in each cable pit for maintenance purposes	I	PL	WP	WP	NR	NR	Each cable pit	
2.5	SE	Distribution Cabinet Labelling	VicRoads 731.12	Site Number to be provided by Design on Drawings Label is affixed to the distribution cabinet in a location viewable from the roadway.	I	PL	WP	WP	HP	WP	Each cabinet	
2.6	SE	Pole Labelling	VicRoads 731.12	Asset & poles number to be provided by Design on Drawings. Label directly faces oncoming traffic at approx 45-degree angle and 2.5m-3m above ground level. One label for single outreach. Two labels for double outreach.	I	PL	WP	WP	HP	WP	Each pole	
3.0	**Post Operations (Include Inspection and Testing)**											
3.1	SE	Data Collection of Assets	VicRoads 731.13	All assets have GPS co-ordinates of their location in decimal degrees to 6 decimal places Site Information: • Site Number • Site name • Start Road • End Road • Owner • Municipality • VicRoads Region • Meter Number • NMI Number • Cabinet GPS co-ordinates Cabinet Information: • Circuit No • Phase circuit connected to • Circuit breaker rating • Pole numbers connected to circuit Poles and Luminaires: • Pole number • Road name • Near Reference • Position (e.g. left, centre median) • Pole location using GPS co-ordinates • Pole height • Outreach type (single or double) • Outreach length • Luminaire brand • Luminaire Type (LED T1, T2 or T4)	R	PL	NR	WP	NR	NR	World Geodetic System WGS84 Excel spreadsheet	

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Item No.	Resp. Person	Inspection and Test Activity	Specification Reference	Acceptance Criteria	Test Method	Test Freq.	Inspection/Verification (Name, signature & date)				Records/ Documents	Field Notes / Comments
							Sub-Contractor	Spark NEL Engineer	Nominated Authority	IREA		
3.2	SE	Torque of nuts and bolts	VicRoads 371.16	One week prior to PC, the torque in the slip base pole slipe plane holding down nuts and bolts on the flange to be checked with calibrated torque wrench	I		NR	WP	NR	NR	This ITP	
3.3	SE	Testing and Certificate of Electrical Safety	VicRoads 731.16	Testing of all distribution cabinets, circuits, switches, PE cells, luminaires, and all other electrical components Compliance with AS/NZS 3000	T		NR	HP	NR	NR	Cert of Electrical Safety	
4.0	**Quality**											
4.1	QSR	Identification and control of non-conforming products or services (if applicable)	CQMP Section 8.3	Review and confirm closure of NCR's and associated RFI's prior to closing of construction lot	R	PL	NR	HP	NR	NR	NCR closed with related documentation	
4.2	QSR	Check all quality records for lot closure	CQMP Section 8.3	All applicable quality records are complete	R	PL	NR	HP	NR	NR	Compiled documents (all data reports and records)	

Legend:

Responsibility		Method	Inspection / Verification	Test Frequency	Other
SS: Site Supervisor SE: Site Engineer PE: Project Engineer SPE: Senior Project Engineer GE: Geotechnical Engineer PS: Project Surveyor	PSM: Project Systems Manager QSR: Quality Site Rep. STR: Structural Engineer SSR: Site Safety Rep. EMR: Environmental Management Rep. NA: Nominated Authority (Release of HP) IREA: Independent Reviewer (Observer)	V: Verify I: Inspection R: Review T: Test	HP: Hold Point WP: Witness Point NR: Not Required	PW: Prior to Works PL: Per Lot F: Full or 100% Inspection or Testing X1: Inspect or Test at Specified Frequency X2: Random Inspection or Test	QP: Quality Plan RFI: Request for Information NCR: Non-Conformance VC: Verification Checklist XXXX: Sequential Number from Doc Control

DDD – Types: B – Building, C – Civil, G – General, M – Mechanical & Electrical, I – Motorway Operations System (ITS), S – Structure, O – Tolling, T – Tunnel, U – Urban Design & Landscape

Supplier/Subcontractor: (If applicable)	Name	Signature and Date	Spark-NELP REP	Name	Signature and Date

Lot closure comments:

Spark NELP QA Rep:

Name_____ **Signature:** _____**Date:** _____