

SPARK – North East Link – Primary Package

Inspection and Test Plan (ITP)

ITP Title: Kerb and Channel


ITP Number: NEL-CNT-SDC-2990-PQA-ITP-0016 Rev 0

LOT Number: _____

Primary Asset Location Code: _____

Discipline: Roads & Drainage

Spark NELP Approval Record

Function	Position	Name	Signature	Date
Prepared By	Quality Representative	Abiola Olulana	Abiola Olulana	Digitally signed by Abiola Olulana Date: 2022.08.02 11:36:12 +10'00'
Reviewed By	Project Engineer	Domenic Ciccone	Domenic Ciccone	Digitally signed by Domenic Ciccone DN: cn=Domenic Ciccone, o=Spark, ou=Spark, email=Domenic.Ciccone@sparknelp.com.au Date: 2022.08.02 12:10:56 +10'00'
Approved By	Quality Manager	Greg Iro		Digitally signed by Greg Iro Date: 2022.08.03 09:52:57 +10'00'

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: Kerb and Channel

References:

Drawing numbers and specifications - VicRoads 703, Design Management Plan, Construction Quality Management Plan (CQMP), Project Scope and Delivery Requirement (PSDR)

Description: This ITP covers construction of Kerb and Channel

Standards: AS3610, AS3799

ITP No: NEL-CNT-SDC-2990-PQA-ITP-0016 **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 Frequency	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	Construction Package Approval	PSDR Part F6 2 (a) to (h)	Construction Documentation shall be submitted and approved prior to commencing work at site.	R	PW	NR	HP		NR	NR	IFU Construction Package InEight Reference: #_____	
1.2	PE	Design status	PSDR Part F5, 2(b) & (c)(i)	Design to be IFC prior to works commencing	V	PW	NR	HP		NR	NR	IFC Drawings InEight Reference: #_____	
1.3	SE	All Equipment calibrated	Quality Management Plan Section 11.1	Equipment calibration certificates filed in InEight Ensure all equipment associated with the relevant works is calibrated	R	PW	HP	HP		NR	NR	Calibration Certificates InEight Reference: #_____	
1.4	SE	Premixed Concrete	Vic Roads 703.05, Table 703.111 IFC Drawings	Premixed concrete conforms with requirements of AS1379, 703.05 and Table 703.111	R	PW	HP	HP		NR	NR	Delivery Docket	
1.5	PE	Survey Set Out	PSDR Part F4 Section 6 IFC Drawings VicRoads 703.17 IFC Drawings	Clearly mark limit of works; Chainage, offsets, cut/fill level etc. (if required)	V	PW	HP	HP	HP	WP		HP Release InEight Reference: #_____ Survey Record InEight Reference:	

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: Kerb and Channel

References:

Drawing numbers and specifications - VicRoads 703, Design Management Plan, Construction Quality Management Plan (CQMP), Project Scope and Delivery Requirement (PSDR)

Description: This ITP covers construction of Kerb and Channel

Standards: AS3610, AS3799

ITP No: NEL-CNT-SDC-2990-PQA-ITP-0016 **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 Frequency	Inspection/Verification (Name, signature & date)				Records/Documents	Field Notes / Comments
							Sub- Contractor	Spark NEL Engineer	Nominated Authority	IREA		
											# _____ This ITP Lot Map	
2.0	Operations (Include Work Execution – Installation / Manufacturing Process step-by-step)											
2.1	SE	Excavations and bedding preparation	VicRoads 703.20, 703.21 IFC Drawings	Excavation not to extend more than 150mm from the adjacent face of existing pavement. Bedding material shall be compacted size 20mm Class 3 or Class 4 Crushed Rock to 98% standards compaction unless shown otherwise on the drawings Material properties, testing and testing frequency shall be in accordance with section 812	V	PL	WP	WP	NR	NR	Material delivery dockets	
2.2	SE	Machine Extrusion	VicRoads 703.05(b) 703.23 IFC Drawings	Concrete shall be fed to the machine at a uniform rate. The machine shall be operated to produce a satisfactorily compacted, dense mass of concrete free of any faulty or honeycombed patches. Surfaces shall be	V	PL	WP	WP	NR	NR	Concrete delivery dockets	

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: Kerb and Channel

References:

Drawing numbers and specifications - VicRoads 703, Design Management Plan, Construction Quality Management Plan (CQMP), Project Scope and Delivery Requirement (PSDR)

Description: This ITP covers construction of Kerb and Channel

Standards: AS3610, AS3799

ITP No: NEL-CNT-SDC-2990-PQA-ITP-0016 **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 Frequency	Inspection/Verification (Name, signature & date)				Records/Documents	Field Notes / Comments
							Sub- Contractor	Spark NEL Engineer	Nominated Authority	IREA		
				substantially free from surface pitting larger than 5mm diameter Concrete used in kerb extrusion machines will not be subject to compressive strength requirements but shall have a minimum cementitious material content in the finished concrete as follows: <ul style="list-style-type: none">Traffic Routes – a minimum of, or equivalent to, 320 kg of cementitious material or geopolymer binder per cubic metre of concrete Local Streets – a minimum of, or equivalent to, 280 kg of cementitious material or geopolymer binder per cubic metre of concrete								
2.3	SE	Profile transitions and matching existing sections	VicRoads 703.24 IFC Drawings	Change of profile shall be made at a constant rate between 10 and 20mm per metre. Transitions between different profiles shall be	V	PL	WP	WP	NR	NR	This ITP	

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: Kerb and Channel

References:

Drawing numbers and specifications - VicRoads 703, Design Management Plan, Construction Quality Management Plan (CQMP), Project Scope and Delivery Requirement (PSDR)

Description: This ITP covers construction of Kerb and Channel

Standards: AS3610, AS3799

ITP No: NEL-CNT-SDC-2990-PQA-ITP-0016 **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 Frequency	Inspection/Verification (Name, signature & date)				Records/Documents	Field Notes / Comments
							Sub- Contractor	Spark NEL Engineer	Nominated Authority	IREA		
				made in accordance with the drawings								
2.4	SE	Surface Finish	VicRoads 703.25 AS3610 IFC Drawings	All edgings shall be rendered and have a steel trowel finish. Rendering shall be applied within 30 minutes of placing or extruding concrete. Permanently hidden concrete surfaces of edgings shall have a Class 4 surface finish in accordance with AS3610.	V	PL	WP	WP	NR	NR	This ITP	
2.5	SE	Joints	VicRoads 703.26 IFC Drawings	Transverse joints shall be constructed at regular intervals not exceeding 2.5 m. Expansion joints shall be placed at junctions with bridges, and shall be 15 mm wide and filled with cork or bituminous impregnated particle board strip extending for the full width and full depth of the edging. Expansion joint and control joints as per details shown on the IFC drawings.	V	PL	WP	WP	NR	NR	This ITP	
2.6	SE	Marking Conduit positions	VicRoads 703.28	Existing conduits passing under edgings shall be marked by a chase in the	V	PL	WP	WP	NR	NR	This ITP Photos	

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: Kerb and Channel

References:

Drawing numbers and specifications - VicRoads 703, Design Management Plan, Construction Quality Management Plan (CQMP), Project Scope and Delivery Requirement (PSDR)

Description: This ITP covers construction of Kerb and Channel

Standards: AS3610, AS3799

ITP No: NEL-CNT-SDC-2990-PQA-ITP-0016 **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 Frequency	Inspection/Verification (Name, signature & date)				Records/Documents	Field Notes / Comments
							Sub- Contractor	Spark NEL Engineer	Nominated Authority	IREA		
				edge immediately above the conduit together with a suitable identification mark.								
2.7	SE	Curing and Protection of concrete	VicRoads 703.10, 703.27 AS 3799 IFC drawings	Exposed concrete surfaces to be cured Immediately after finishing operations with either water, wet hessian or curing compound complying with AS 3799 for a minimum period of 7 days. Exceptions are edges which require a minimum period of 3 days curing All concrete shall be protected from early loading	V	PL	WP	WP	NR	NR	This ITP	
2.8	PE	Inspection of Concrete Surface	VicRoads 703.25, 703.26 IFC drawings	After finishing, all work shall present a consistently neat appearance of uniform colour. All edges shall be sharp and clean and bullnoses shall be regular and of uniform radius. Surface finish and joints to comply with 703.25 and 703.26. The concrete shall have no surface cracks at any stage after construction of width greater than 0.2mm	V	PL	WP	WP	NR	NR	This ITP	

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: Kerb and Channel

References:

Drawing numbers and specifications - VicRoads 703, Design Management Plan, Construction Quality Management Plan (CQMP), Project Scope and Delivery Requirement (PSDR)

Description: This ITP covers construction of Kerb and Channel

Standards: AS3610, AS3799

ITP No: NEL-CNT-SDC-2990-PQA-ITP-0016 **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 Frequency	Inspection/Verification (Name, signature & date)				Records/Documents	Field Notes / Comments
							Sub- Contractor	Spark NEL Engineer	Nominated Authority	IREA		
2.9	SE	Backfill and restoration	Vic Roads 703.29 IFC drawings	Backfill to be placed once concrete has cured for at least 3 days as per drawings. Fill to be placed and compacted in layers not exceeding 150mm to a width not less than 300mm behind the edging to the top of the edging	V	PL	WP	WP	NR	NR	This ITP	
2.10	SE / QSR	Crack of Concrete	VR 703.30 (a) (b) (c)	The concrete shall have no surface cracks at any stage after construction of width greater than 0.2mm. Cracked sections of concrete shall be either removed and replaced, or repaired in accordance with Section 687, as directed by the Superintendent.	V	PL	HP	HP	WP	WP	This ITP	
3.0	Post Operations (Include Inspection and Testing)											
3.1	PE	As-Built Survey	VicRoads 703.15 IFC Drawings	<ul style="list-style-type: none"> Ensure As-Built survey is compared within the required tolerance to Design specification. All concrete paving shall be shaped to match existing fixtures e.g. pit covers, edging and VC withing 5 mm 	I & V	PL	WP	WP	NR	NR	As-Built Survey Report InEight Reference: # _____ Work Lot Map	

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: Kerb and Channel

References:

Drawing numbers and specifications - VicRoads 703, Design Management Plan, Construction Quality Management Plan (CQMP), Project Scope and Delivery Requirement (PSDR)

Description: This ITP covers construction of Kerb and Channel

Standards: AS3610, AS3799

ITP No: NEL-CNT-SDC-2990-PQA-ITP-0016 **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 Frequency	Inspection/Verification (Name, signature & date)				Records/Documents	Field Notes / Comments
							Sub- Contractor	Spark NEL Engineer	Nominated Authority	IREA		
				<ul style="list-style-type: none"> The departure of the finished work from line or level shall not exceed 10 mm at any point and rate of deviation shall not exceed 10mm in 10m, except on curve the deviation shall not exceed 5mm at any point. Section dimensions shall not differ from those in the drawings by more than 5mm. Ensure all locations and work area highlighted as per Construction Lot in Work Lot Map. 								
3.2	PE	Final Inspection Site Walk	CQMP Section 12	Ensure at the end of each work conducted that Quality Control conduct an Inspection walk with Engineer to identify potential defects.	I & V	PL	WP	WP	WP	WP	Punch List Record	
3.3	PE	Redline Drawings	Design Management PlanNEL-CNT-SDC-2990-PDM-MPL-0001 Section 5.4	Redline Drawings submitted to Project for creation of As-Built Drawings.	V	PL	HP	HP	NR	NR	Red-Line Marked Up IFC Drawing(s)	

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: Kerb and Channel

References:

Drawing numbers and specifications - VicRoads 703, Design Management Plan, Construction Quality Management Plan (CQMP), Project Scope and Delivery Requirement (PSDR)

Description: This ITP covers construction of Kerb and Channel

Standards: AS3610, AS3799

ITP No: NEL-CNT-SDC-2990-PQA-ITP-0016 **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 Frequency	Inspection/Verification (Name, signature & date)				Records/Documents	Field Notes / Comments
							Sub- Contractor	Spark NEL Engineer	Nominated Authority	IREA		
3.4	PE	Verification and Lot Records complete	CQMP Section 8.3	Progressive monitoring and signoff of Checklists occurs, and test records are collected. Ensure completed work checklists, inspection and test results and Subcontractor conformance records are progressively and permanently saved and stored as soon as possible after they are received. Completed construction lot records are transferred to the project Quality Team for final record verification prior to being closed	V	PL	HP	HP	NR	NR	Lot Record Lot Map	
3.5	PE	NCR Close out (if applicable)	CQMP Section 8.3	All NCR's presented for closure	R	PL	HP	HP	HP	WP	HP Release InEight Reference: # _____ NCR InEight Reference: # _____ NCR Module	
4.0	Quality											

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: Kerb and Channel

References:

Drawing numbers and specifications - VicRoads 703, Design Management Plan, Construction Quality Management Plan (CQMP), Project Scope and Delivery Requirement (PSDR)

Description: This ITP covers construction of Kerb and Channel

Standards: AS3610, AS3799

ITP No: NEL-CNT-SDC-2990-PQA-ITP-0016 **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 Frequency	Inspection/Verification (Name, signature & date)				Records/Documents	Field Notes / Comments
							Sub- Contractor	Spark NEL Engineer	Nominated Authority	IREA		
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		HP			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		HP			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-NELPP REP	Name	Signature and Date

Lot closure comments:

INSPECTION AND TEST PLAN (ITP)



Spark NELP QA Rep:

Name _____ Signature: _____ Date: _____