SECTION 1 – GENERAL DETAILS

Project Name:	Peacocke Whatukooruru Drive	**ITP Number:**	138
Project Number:	DS1205	**ITP Status:**	For Approval
ITP Description:	Texas Rail Installation	**Revision:**	D

Contract Number:	Peacocke Whatukooruru Drive	**Drawing Sets:**	Drawings 4372 || 4272
Customer:	Hamilton City Council	**Specification:**	Project Specification and Appendices.
Quality Specified:	NZTA Z/1		

Review / Update History

Rev:	Status:	Date:	Reviewed By:	Revision Details:
A	Draft for Approval	12/08/2024	Jotham Makini	First Revision for Review and Approval
B	Draft for Approval	29/10/2024	Eva Fan	Second Revision for Review and Approval - Include type of Coating
C	For Approval	1/11/2024	Eva Fan	For Review and Approval as per BBO's comments
D	For Approval	9/12/2024	Eva Fan	For Review and Approval as per BBO's comments

Verification Activity

Activity Key		Responsibilities Key	
A	Action	ENG	Engineer / Engineer's Rep
B	Report by Breach	CR	Customer Rep
C	Check	PD	Project Director
D	Dimension Inspection	PM	Project Manager
E	Examine	OP	Operations Manager
HP	Hold Point (Engineer)	HSE	HSE Manager / Rep
H	Hold Point (Internal)	QM	QA Manager / Rep
I	Inspection	PE	Project Engineer
M	Monitor on Random Basis	SE	Site Engineer
O	Operation	QE	Quality Engineer
R	Review	SUP	Superintendent / Supervisor
S	Subcontractor	SV	Surveyor
V	Visual Verification	ITP	Third Party Inspector
W	Witness Point	SPEC	Specialist

SECTION 2A – ITP Approval

Position	Name:	Signature:	Date:
Downer PM			
Downer QM			
Client (If Applicable)			

SECTION 2B – ITP CLOSEOUT

Position	Name:	Signature:	Date:
Downer PM			
Downer QM			
Client (If Applicable)			

Item No.	Inspection and Test Point	Acceptance / Conformance Criteria	Standard / Specification	Verifying Document	Frequency	Verification Activity	
						Activity	By
SECTION 3 – PRE-CONSTRUCTION (P&G / ESTABLISHMENT)							
3.01	Site Requirements						
3.01.01	Construction Pack	Methodology and ITP to be submitted to the Engineer and approved prior to works beginning	Downer	Approved ITP on CONQA	Submit 10 days prior to commencement of works	HP	ENG
3.01.02	Survey Setout	Survey Set out as per contract drawings and specification, capturing pre-construction levels where needed.	Downer	Survey Records	Prior to Works	H	SV
3.01.03	Service Location	Complete the Excavation permit process to identify, locate and protect all services.	Downer	Excavation Permit	Prior to Excavation	H	SE
3.01.04	Internal Permits	Complete internal Permits as required to complete works including but not limited to: Hot works, concrete saw, lift, confined space, working at height etc.	Downer	Internal Permits	Prior to Excavation	H	SE
3.01.05	External Permits	Obtain External Permits as required to complete works including but not limited to: Close approach, Worksafe Notice etc.	Downer	External Permits	Prior to Excavation	H	PE
3.01.06	Approved Construction Drawings	Prior to starting works, Ensure that the construction drawings are both IFC and the Current Version.	Downer	IFC Drawings	Prior to works start	H	PE
SECTION 4 – MATERIAL, PERSONNEL & THIRD PARTY APPROVAL							
4.01	Precast Traffic Barrier						
4.01.01	Precast Traffic Barrier	All precast barrier QA to be in separate ITP for precast element. – This item to be acceptance of precast QA ITP	PS-1	BBO	Before Installation	H	PE
4.01.02	Ellipse Handrail	Eclipse handrail QA to demonstrate compliance with Structural steel notes on IFC DWG 4001 (refer to fabrication ITP)	Structural steel notes on IFC DWG 4001	Shop Drawing/Material Certificate/PDS	Before Installation	H	PE
4.01.03	Non-Conductive Barrier Coating	Non-Conductive Barrier Coating to be Carboguard 636 XT (approved in RFI-0263), min. 150 microns to be applied to underside and side of baseplate (refer to fabrication ITP)	AS/NZS 2312/HERA Report	Shop Drawing/Coating Certificate/delivery dockets	Before Installation	H	PE

Item No.	Inspection and Test Point	Acceptance / Conformance Criteria	Standard / Specification	Verifying Document	Frequency	Verification Activity	
						Activity	By
4.01.04	Fall Protection Wire Rope	Wire rope shall be 6mm stainless steel wire rope or otherwise approved; Material certs to demonstrate compliance of SS wire rope to be SS316 as per NZTA M23 Appendix B Rev.2	NZTA M23 Appendix B Rev.2 & NTT003	Material Certification	Before Installation	H	PE
4.01.05	M16 & M24 bolts, washers and nuts	Property Class 8.8 Hold Down Bolts, HDG	AS/NZS 3845.1: 2015 AS 3569 AS2759	Material Certification	Before Installation	H	PE
4.01.06	Sleeve Member and Pin on bottom of Sleeve, Base Plate and Rail Vertical Posts, Rail Termination Cap	Material certs to demonstrate compliance with Structural steel notes on IFC DWG 4001 (refer to fabrication ITP)	Structural steel notes on IFC DWG 4001	Material Certification	Before Installation	H	PE
4.01.07	Wire Rope Termination	Material cert on U bolt or similar approved for safety wire rope termination detail	Structural steel notes on IFC DWG 4001	Material Certification	Before Installation	H	PE
SECTION 5 – CONSTRUCTION ACTIVITY							
5.01	Precast Barrier and Texas Rail Erection Inspection and Testing						
5.01.01	Temporary Works (Stitch Pour Formwork)	Temporary works to be installed as per design drawings. Permit to load to be issued by temporary works inspector prior to loading element	Downer	Permit to load/Inspection	As defined in the temporary works design	HP	ENG
5.01.02	Cast-In M24 Bolt	Re-check all bolt assemblies are Class 8.8 high strength unless otherwise specified on the drawings	NZS 3404.1	IFC/Material Certification	Before Installation	H	PE
5.01.03	Check cast-in bolt set-out	As-built bolt locations, and overall alignment of precast barriers, for rail baseplate hole positioning. Set-out shims/packers	Downer	Survey Data	Before Installation	HP	ENG
5.01.04	Baseplate and Ellipse Handrail tolerance	Install vertical post with handrail and partly tension bolts onto the baseplate. Ensure tensioning tolerances for steelwork/bolts are checked. TABLE G1 MINIMUM BOLT TENSION Nominal diameter of bolt / Minimum bolt tension kN M16 95 M20 145 M24 210 M30 335 M36 490 NOTE: The minimum bolt tensions given in this Table are approximately equivalent to the minimum proof loads derived from a proof load stress of 600 MPa, as specified in AS 4291.1.	Downer/AS/NZS 5131: 2016	Hold Point Release	Before Installation	H	PE

Item No.	Inspection and Test Point	Acceptance / Conformance Criteria	Standard / Specification	Verifying Document	Frequency	Verification Activity	
						Activity	By
5.01.05	Rev.D Tension bolts	Check each bolt has a washer, nut and locknut and tension all bolts using part turn methodology	AS/NZS 5131: 2016 A1 Section 8.5	Photo/Site-Approval	Each Baseplate	I	SE
5.01.06	Grouting under baseplate	While Hi-ab is holding the handrail components, adjust/tighten, and apply Sika212 or similar (approved by Engineer) to the underside of the baseplate (nom. 15mm)	AS/NZS 5131: 2017	PDS	Each Baseplate	I	SE
5.01.07	Fall Protection Wire Rope	Prior to installation make sure wire ropes are free from: wear or scraping, kinking, crushing, bird caging damages. Wire Rope to be installed within the following tolerance AS/NZS 3845.1:2015 42 Unless specified otherwise in the system documentation or by the Road Authority, the following shall apply: (a) Fittings such as swages, rigging screws and the like, shall be placed so that the end of the fitting is a minimum distance of 50 mm away from a post. In order to comply with Item (a), the requirements to avoid clashes with fittings, it is permissible to move the location of a post. (b) Variation from true plan position of posts ±30 mm. (c) Variation in rope height ±20 mm. (d) Variation from true plan position of barrier ±20 mm. (e) Footings (length, width and depth) –10, + 50 mm. (f) Anchor blocks (length, width and depth) –20, + 100 mm. (g) Height of footing relative to finished surface levels +20, –0 mm. (h) The system shall be tensioned to a tolerance of ±1.0 kN. (i) All anchors, footings and posts shall be capable of resisting the load nominated by the System Supplier (see Clause 2.5.4). (j) Upon completion of the installation, the wire rope shall be free of creases or fracture strands and the galvanizing undamaged.	AS/NZS 3845.1: 2015	Inspection/Site-Approval	Before Installation	H	PE
SECTION 6 – POST CONSTRUCTION (FINAL INSPECTION AND HANDOVER)							
6.01	General						
6.01.01	Construction Record Compilation	Compile construction records for final submission ensuring defects (NCRs) / Snags / missing records are captured or closed out, all tests have been received and passed, and changes / omissions have been noted.	Downer	Records	Post construction	H	SE
6.01.02	Survey Records	Ensure all items have been surveyed and records are assembled for asbuilting	Downer	Records	Post construction	H	SV
6.01.03	Redline Drawings	Create a set of Redline Drawings for Asbuilt creation noting all changes and departures in red pen. Red line to show any changes to footpath location or basecourse depth.	Downer	Redlines	Post construction	H	PE
6.01.04	Defect, Snag and Punch List	Update the project Defect, Snag and Punch List Register	Downer	Register	Post construction	H	**PE**