Bus Shelter Foundation Inspection and Test Plan

Project: Wellesley St Bus Interchange - WSBI
Number and Revision: DN1211 - 006 - Rev 00

SECTION 1 – GENERAL DETAILS

Project Name:	Wellesley St Bus Interchange - WSBI	**ITP Number:**	006
Project Number:	DN1211	**ITP Status:**	Draft
ITP Description:	Bus Shelter foundation	**Revision:**	00

Contract Number:	746-24-328-AC	**Drawing Sets:**	
Customer:	Auckland Transport	**Specification:**	WSBI Technical Specification, Ref: 522356-W00001-SPE-MC-0001
Quality Specified:			

Review / Update History

Rev:	Status:	Date:	Reviewed By:	Revision Details:
A	Draft for Review	18/10/2024		
0	Issued for Construction	30/10/2024	R Collier	Update as per Aurecons comments

Verification Activity

Activity Key		Responsibilities Key	
A	Action	ENG	Engineer / Engineer's Rep
B	Report by Breach	CR	Customer Rep
C	Check	DES	Designer
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 – Master ITP Approval

Position	Name:	Signature:	Date:
Downer PM	Glen Maria	Glen Maria	17/07/2024
Downer QM			
Client (If Applicable)			

SECTION 2B – ITP CLOSEOUT

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

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Item No.	Inspection and Test Point	Acceptance / Conformance Criteria	Standard / Specification	Verifying Document	Frequency	Verification Activity		Downer Conformance of Compliance Signoff				
						Activity	By	Downer Signature	Date	MSQA signature (Blank as Req.)	Engineer Rep Signature (Blank as req.)	Comments / Closeout Details
SECTION 3 – PRE-CONSTRUCTION (P&G / ESTABLISHMENT)												
3.01	Site Requirements											
3.01.01	Construction Pack	Submit a Construction Pack including a Methodology and JSEA to the Engineer before works	Downer	Construction Pack	Submit 5 days prior to commencement of works	**H**	PE				**R**	
3.02.02	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					
3.02.04	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				**R**	
3.02.06	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												
4.00	General Material Approval											
4.01	Level and shape of Subgrade	pavement subgrade tolerance ; +/-10mm from design subgrade level. Excavation deppth must be at least the design pavement depth for LMC locations. Subgrade shape as per survey set out, to be verified on site	Aurecon Civil Spec; Section 5.6.9	As-Built	Once per footing	I	SE				**R**	
4.02	Aggregate basecourse **(If used)** AP65	The basecourse aggregate shall be sampled and tested by an IANZ Accredited laboratory for Crushing Resistance, Weathering Quality Index, and California Bearing Ratio. Grading to be compliant with AT 0800 grading specification	Aurecon Civil Spec 6.5.2 TNZ M/4	Material Certificate / QA Sheets	Prior to Use	**H**	SE				**R**	
4.03	Mix design (Concrtee and Blinding)	Blinding to be 10Mpa mix Typical structures - confirm supply of "high strength concrete"; 20MPa concrete; 19mm max aggregate size. As specified on drawing use marine grade concrete 30MPa,	Aurecon Civil Spec Section 14.6	Approval Mix Design	As required	**H**	PE				**R**	
SECTION 5 – CONSTRUCTION ACTIVITY – BUS SHELTER FOUNDATIONS												
5.00	**Construction**											
5.01	Setting Out	Before construction,Contractor to mark out extents of structure	Downer	Pre pour checksheet	Once per struture	I	SE				**I**	
5.02	Subgrade Testing	Conctractor to confirm subgrade strength and report to Engineer via QA inspection	Aurecon Civil Spec; Section 5.6.11	Pre pour checksheet	Once per struture	**H**	SE				**I**	
5.03	Blinding Layer	50mm 10Mpa blinding layer to be placed within footpring of structure	DRG-SS-2270	Pre pour checksheet	Once per struture	I	SE					
5.04	Concrete	All concrete shall be batched by weight and mixed in an approved plant requirments of NZS 3104 High grade and Special Grade Concrete for sturtcures to be 30Mpa concrete with slump target as per mix design 3 Cylinders taken per pour	Aurecon Civil Spec Section 13.6.3 Clause 2.15.5.3.2 of NZS 3104	Supplier Records Concrete Dockets	Once per Pour	**H**	PE				**R**	

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						Activity	By	Downer Signature	Date	MSQA signature (Blank as Req.)	Engineer Rep Signature (Blank as req.)	Comments / Closeout Details
5.05	Reinforcement	Reinforcement and embedded items cut, bent (cold) and accurately placed as shown on design drawings. At least 30mm cover to all reinforcing +5mm-0mm Bar spacing as per drawings +/- 10 mm Bend locations as per drawings +/-5mm	Aurecon Civil Spec;14.6.7 AS/NZS 4671	Prior to Each pour QA Checksheet	In progress check	I	SE			I		
5.06	Pre-Pour Inspection	Notify Engineer for inspection of formwork 24 hours prior to pour I nspection	–	Prior to Each pour QA Checksheet	Once per Pour	H	SE			H		
5.1.1	Acceptance Testing and Commissioning											
5.1.2	Post Pour	concrete curing for at least 5 days. Form removal after atleast 12 hours. Post pour inspection to be submmitted for Engineer's acknowlegement showing finished concrete is within tolerances (surface level +/-5 mm)	Aurecon Civil Spec Section 10.1.11 NZS 2566.2; Section 6.3.4.1 & 6.3.4.2	Test Report	Each foundation	H	SE			R		
5.1.3	Testing	Slump test during pout to check workability of concrete or as directed by Engineer 3 cylinder test taken for each pour. Slump target as per mix design	Aurecon Civil Spec 14.7.12 NZS 3112	Prior to Each pour QA Checksheet	In progress check	H	SE			R		
5.1.4	Independent testing **(If Requested)**	The Engineer's Rep may request site samples/ cores for independent testing of fresh or cured concrete to review the grading, mix design, strength and thickness	–	Upon Request	IANZ lab resport	W	SE			R	R	
SECTION 6 – POST CONSTRUCTION (FINAL INSPECTION AND HANDOVER)												
6.01	Site Post Construction Activities											
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			R	H	
6.01.02	Survey Records	Ensure all items have been surveyed and records are assembled for asbuilting. Installation of works under contract compliant and in accordance with all rlevenat regulations, COP and standards unless specified by the engineer	Downer	Records	Post construction	H	SV			R	H	
6.01.03	Redline Drawings	Create a set of Redline Drawings for Asbuilt creation noting all changes and departures in red pen.	Downer	Redlines	Post construction	H	PE			R	H	
6.01.04	Defect, Snag and Punch List	Update the project Defect, Snag and Punch List Register	Downer	Register	Post construction	H	PE			R	H	