

Client: Melbourne Airport

Contract No: CP14038-01

Prepared By: Jihad Barbar

Project: Taxiway Zulu

Reviewed By: Jamal Khodr

Date: 06/01/2025

Construction Process: ALER 3 Electrical

Approved By: Marco Poggenberg

Date: 06/01/2025

Specifications: ZULU-BECA-001-SPC-00005, Drawings

Structure / Component: Electrical Switchboards, DBs, LV Cabling, Containment, Lighting, Lighting Control, Emergency Lighting, Access Control Systems and CCTV Installation.

Lot No:

Lot Details:

Lot size/Quantity:

Date:

Item No.	Task/Activity Description	Inspection/Test					HP/ WP/ AP/ IP/ TP SCP	Responsibility Project Engineer / Site Engineer	Checked by:		
		Frequency	Acceptance Criteria	Reference Documents	Inspection/ Test Method	Record of conformity			Principal's Rep.	FH	Date
1.0	Preliminary Activities – Permits, Documentation, Approvals, Survey Documentation										
1.1	Check for correct documentation	Prior to commencing activity	Ensure that all employees and subcontractors are: - using the correct and complete set of drawings. - all drawings are the latest revision.	Drawings / Aconex Register	Verify	Drawings and drawing registers	HP*	Project Engineer / Site Engineer			
1.2	Implementation of all measures and controls	Prior to commencing activity	All necessary measures and controls being implemented, that is PSP, EMP, TMP, SWMS & WP.	PSP, EMP, TMP, JSEA, SWMS, WP	Visual inspection	This ITP signed	HP*	Project Engineer / Site Engineer			
1.3	Survey Checks	Prior to commencing activity	Survey set out to be completed for all assets	Drawings	Verify	This ITP signed	HP*	Project Engineer / Site Engineer			
1.4	Submission & approval of shop drawings	Prior to commencing activity	HOLD POINT Submit shop drawings to the principal's representative for approval prior to fabrication commencement. Items to include but not limited to: MSB, DB-A, DB-C, DB-L&P, DB-EX1, DB-EX2, MSSB, DB-MGC, DB-GCP, DB-LBC, Luminaires, Light Control Systems, Lightning Protection and Earthing	ZULU-BECA-001-SPC-00005 C2100 Page 8, Drawings 030-3100 set, Approved Shop drawings	Verify	Aconex Reference	HP	Project Engineer / Site Engineer /Principal's Representative			
1.5	Material Submissions	Prior to commencing activity	HOLD POINT Items to include but not limited to: - Cables, control panels, luminaires, lighting control, switches, isolators, contactors, circuit breakers, earthing system, cable trays, ladders, etc. (all containment)	ZULU-BECA-001-SPC-00005 AS/NZS 3000 Drawings 030-3100 set,	Verify	Aconex Reference	HP	Project Engineer / Site Engineer /Principal's Representative			

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1.6	Temporary Works (if applicable)	Prior to commencing activity	Submission and approval of the following documentation based on the Temporary Works Design Process Matrix.	ZULU-BECA-001-SPC-00005 Temporary Works Design Process Matrix Drawings 030-3100 set,	Verify	As defined by the Temporary Works Design Process Matrix (where applicable)	HP*	Project Engineer / Site Engineer			
1.7	Off-site Inspections	Each Lot	WITNESS POINT Inspection and attendance on site for Factory Acceptance Testing for: <ul style="list-style-type: none"> Switchboards Distribution Boards Following these inspections FAT testing shall be submitted.	ZULU-BECA-001-SPC-00005 C2121.20, AS/NZS 3000, Drawings 030-3100 set	Verify	This ITP Signed Factory Acceptance Tests	WP TP	Project Engineer / Site Engineer /Principal's Representative			
1.8	Certificates of Compliance (prior to delivery to onsite)	Each Lot	Provide Suppliers Certificate of Compliance and Spatial Certificate of Compliance for <ul style="list-style-type: none"> Switchboards Distribution Boards Control Systems Power Control Switchgear Cables 	ZULU-BECA-001-SPC-00005 C2100.3, AS/NZS 3000, Drawings 030-3100 set	Verify	Supplier's Certificate of Compliance Spatial Certificate of Compliance (where required)	HP	Project Engineer / Site Engineer /Principal's Representative			
2.0	Construction										
2.01	Delivery of Materials to site	Each Lot	Inspection of materials whilst still loaded on the truck prior to accepting the delivery on site. Identify any damage/defects prior to unloading of the material.	ZULU-BECA-001-SPC-00005 Drawings	Visual Inspection	This ITP Signed Materials Inspection	IP	Project Engineer / Site Engineer			

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						Checklist on ConQA					
2.2	Conduit / Containment Installation – Walls and Ceilings	Each Lot	Confirm the following items are constructed in accordance with IFC design and specification. <ul style="list-style-type: none"> Fixings secured in walls/ceilings. Conduits, bends, and junction boxes Draw wires installed Fire-stopping and fire protection 	ZULU-BECA-001-SPC-00005 AS/NZS 3000, Drawings 030-3100 set	Visual Inspection	This ITP Signed Building Eng ITC	IP	Project Engineer / Site Engineer			
2.3	MSB, LV Distribution Boards, and Control Panels	Each Lot	Confirm the following items are constructed in accordance with IFC design and specification. <ul style="list-style-type: none"> Size, colour, location Plinth (if required) Secure and anchored. Labels Switchgear and M.E.N Link Tightness & alignment All wiring tidy and neat Verify and confirm the following tests (not limited to): <ul style="list-style-type: none"> Polarity Check Cable Loop Resistance (Ohms) Insulation Resistance (Core-Core& Core to Earth) 	ZULU-BECA-001-SPC-00005 AS/NZS 3000, Drawings 030-3100 set	Visual Inspection	This ITP Signed Building Engineering ITP	IP	Project Engineer / Site Engineer			
2.4	Cable Tray & Cable Tray Support Post Installation (Comms, Electrical and AGL)	Each Lot	Confirm the following items are constructed in accordance with IFC design and specification. <ul style="list-style-type: none"> (i) Provide cable support system throughout, including cable trays (both power and Comms/ELV), cable ladders, trunking, conduits and catenary wire system. (ii) External ducts and draw pits for the incoming LV supply shall be provided by the Civils Trade. Ducts connected 	ZULU-BECA-001-SPC-00005 -C2100, C2112 AS/NZS 3000 Drawings 030-3100 set	Visual Inspection	This ITP Signed Building Eng ITC	IP	Project Engineer / Site Engineer			

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			between building and external pits to be of flexible type and be able to withstand building movement. • (iii) Provide cast-in conduits with draw wires as required. • (iv) All safety services shall be installed on fire rated containment. Where fire rated cable share containment with general services reticulation, all containment and fixings shall be selected and installed to suit the requirements of the safety services installation.								
2.5	Cabling – Mains, Submains,	Each Lot	Confirm cabling is constructed in accordance with IFC design and AS/NZS 3000. Verify and confirm the following tests (not limited to): <ul style="list-style-type: none"> • Polarity Check • Cable Loop Resistance (Ohms) • Insulation Resistance (Core-Core& Core to Earth) 	ZULU-BECA-001-SPC-00005 C2111.5 AS/NZS 3000 Drawings 030-3100 set	Visual Inspection	This ITP Signed Building Eng ITP	IP	Project Engineer / Site Engineer			
2.6	Emergency Lighting and Illuminated Exit Sign Installation	Each Lot	Confirm cabling is constructed in accordance with IFC design and AS/NZS 3000 & AS/NZS 2293 Verify and confirm the following tests (not limited to): <ul style="list-style-type: none"> • Polarity Check • Cable Loop Resistance (Ohms) • Insulation Resistance (Core-Core& Core to Earth) All Emergency luminaires, signs and exits labelled as per ALER 3 Emergency Lighting Schedule.	ZULU-BECA-001-SPC-00005 C2132 Drawings 030-3100 set AS/NZS 3000	Visual Inspection	This ITP Signed Building Eng ITP	IP	Project Engineer / Site Engineer			
2.7	Light Fitting and Light Control Installation. (External/Internal Luminaires, PIRs)	Each Lot	Confirm the following items are constructed in accordance with IFC design and specification. <ul style="list-style-type: none"> • Type, size, colour, quantities, location • Secure 	ZULU-BECA-001-SPC-00005 C2133 C2130 Drawings 030-3100 set	Visual Inspection	This ITP Signed Building Eng ITP	IP	Project Engineer / Site Engineer			

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			Verify and confirm the following tests (not limited to): <ul style="list-style-type: none"> Polarity Check Cable Loop Resistance (Ohms) Insulation Resistance (Core-Core& Core to Earth) DALI control and lighting devices has been provided where dimming or time scheduling is required. External lighting must meet spill requirements of Part 139 (Aerodromes) MOS 2019 (i.e. downward facing so no spill light above the horizontal) and must not cause glare or distraction to pilots during aircraft movements.	AS/NZS 1680.3 AS/NZS 3000 MOS 2019 – Part 139							
2.8	GPOs / Data / Antenna outlets & WAPs	Each Lot	Confirm the following items are constructed in accordance with IFC design and specification. <ul style="list-style-type: none"> Quantities& location Secure Fitted off and level. Confirm mounting height of outlets on site with the Superintendent. Generally, and unless otherwise shown on the drawings, outlets shall be mounted at: <ul style="list-style-type: none"> 300 mm above floor level or 200mm above benches in commercial areas. 1400 mm above floor level in plant and industrial areas. 	ZULU-BECA-001-SPC-00005-C2141 Drawings 030-3100 set AS/NZS 3000 AS/ACIF S009:2006	Visual Inspection	This ITP Signed Building Eng ITP	IP	Project Engineer / Site Engineer			
2.9	Access Control systems Installation (Security Panel, Card Readers, Mag locks, Reed	Each Lot	Confirm the following items are constructed in accordance with IFC design and specification. <ul style="list-style-type: none"> Size, colour, quantities, location Secure Fitted off and level. Check that the card reader is installed:	ZULU-BECA-001-SPC-00005 C2701/C2703, Drawings 030-3100 set, AS/NZS 3000	Visual Inspection	This ITP Signed Building Eng ITP	IP	Project Engineer / Site Engineer			

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	switches, REX, UPS)		a) at 1000mm above floor level; and b) on the access side of the door, on the mullion or within 600mm of the door / egress area as applicable. Verify battery and/or UPS capacity can operate normally for a duration of Eight (8) hours.	AS/NZS 2293 AS/ACIF S009:2006							
2.10	CCTV Systems (CCTV Racks, CCTV Cameras, Archivers & Monitors)	Each Lot	Verify that CCTV rack installation quality are satisfactory as follows: <ul style="list-style-type: none">Equipment layout per IFC layout drawing.Equipment are securely fastened.Connection & terminations are securely fastened.Racks (internal and external surfaces) are clean and free from any drilling dust, cable tie or cable off cuts and other debris.Verify that all cables, patch cords, terminations and equipment are correctly labelled in accordance with the Cable Schedule, Patch Record and Label Schedules as well as the IFC Drawings. Verify that all cameras and mounting brackets are installed as per the camera coverage plans and camera schedule.	ZULU-BECA-001-SPC-00005 C2705, Drawings 030-3100 set, AS/NZS 3000 AS/ACIF S009:2006	Visual Inspection	This ITP Signed Building Eng ITP	IP	Project Engineer / Site Engineer			
2.11	Lightning Protection and Earthing Installation	Each Lot	The external lighting protection system shall be constructed as per AS/NZS 1768 and APAM standards Structural steelwork, cable trunking, metallic cable support systems, metal equipment and pipework shall be bonded as required by the regulations, AS/NZS 3000. Provide a main earth bar in the main switch room in a convenient location at 300 mm above finished floor level. Each bar shall be	ZULU-BECA-001-SPC-00005 C2160 / C2161 Drawings 030-3100 set AS/NZS 1768 APAM standards	Visual Inspection	This ITP Signed Building Eng ITP	IP	Project Engineer / Site Engineer			

	Inspection and Test Plan - Control and Supervision of the Works		Doc ID: FH-ZU2-QU-ITP034 REV: 0
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			copper and be bonded to two local building earth plates using single core 70 mm2 green PVC sheathed stranded copper cable.	AS/NZS 3000							
2.12	Existing LV Services Migration	Each Lot	The following existing services have been migrated to the new ALER3 MSB: <ul style="list-style-type: none">• Building 18 LV Supply• MISC LV supply• VOR LV supply• IWDI-1 and IWDI-2 LV supply• SFAL LV supply• RAF LV supply• DME LV supply	ZULU-BECA-001-SPC-00005 C2160 / C2100 Drawings 030-3100 set APAM standards AS/NZS 3000	Visual Inspection	This ITP Signed Building Eng ITP	HP*	Project Engineer / Site Engineer			
2.13	Survey As Built	Prior to Covering Services	Survey to pick up services prior to covering	FH QMP	Verify	Survey	HP*	Project Engineer / Site Engineer /Surveyor			

Final Inspection The signature below verifies that this ITP has been completed in accordance with the Fulton Hogan's Quality system Procedures and verifies lot compliance with specifications.			
Print Name:	Position:	Signature:	Date: / /

Legend:			
HP	Hold Point	Work shall not proceed past the HP until released by the Principal's Representative	IP Inspection point Formal Inspection to be done and recorded

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HP*	Fulton Hogan Hold Point	Work shall not proceed past the HP* until released by Fulton Hogan	TP	Test Point	Product compliance test to be undertaken and recorded/reported
WP	Witness Point	An inspection which must be witnessed by the Principal's Representative	SCP	Survey conformance point	A qualified surveyor to check product/section/structure and report
AP	Approval Point	Written or verbal approval given by the Principal's Representative			

Notes	
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