Inspection and Test Plan

ITP No: HA0423-CIV-00008 - 1

Client: AIAL	Subcontractor: Mckenzie & Parma	Work Area: Civils – Cargo Super Highway, Head Of Stand Road
Project Name: Domestic Jet Terminal	Job No: HA0423	Subcontractor Representative: Mckenzie & Parma

1. ITP Element: Utility Chamber Pits

2. Revision Records

Rev No.	Revision Description	Name of Author	Authorized by:	Date
A	For Approval	Ali Alshami	Matt Cheyne	16/06/2025
B	**For Approval - Mott Mac-CAN-000987**	Ali Alshami	Carl Newman	16/07/2025
C	**For Approval - Mott Mac-CAN-001282**	Ali Alshami	Carl Newman	19/08/2025
D	**For Approval - Mott Mac-CAN-001577**	Ali Alshami	Carl Newman	12/09/2025
1	For Construction Mott Mac-CAN-001681	Ali Alshami	Carl Newman	19/09/2025

3. Relevant Documents

Doc No.	Specification/ Drwgs/ Standards	Additional Info	Document No.	Specification/ Drwgs/ Standards	Additional Info
1	DP001-MMD-SPC-CV-Z-Z-0001	Rev 02	7	DP001-MMD-DRW-UT-G-Z-3000 - 3001	Rev 03
2	DP001-MMD-DRW-U-T-B-Z-3031 - 3055	Rev 01, 02 & 03	8	DP001-MMD-DRW-CS-B-Z-3010 - 3018	Rev 02 & 03
3	DP001-MMD-DRW-U-T-B-Z-3071 - 3091	Rev 01, 02 & 03	9		
4	DP001-MMD-DRW-U-T-B-Z-3100-3117	Rev 01 & 02	10		
5	DP001-MMD-DRW-UT-F-Z-3180 - 3187	Rev 02 & 03	11		
6	DP001-MMD-DRW-UT-B-Z-3200	Rev 01	12		

Inspection and Test Plan

HAWKINS

4. Process

No.	Description Inspection / test	Frequency	Spec/standard	Acceptance Criteria	Measuring Devices	Reporting Format	Inspected by*			Hold Points Sign off	*Remarks*
							HCL	SC	Consult		
1	**Material Compliance**										
1.1	**Fill Materials**										
1.1.1	Bedding and Backfill GAP65 or AP40	Per Batch	CIV Spec - S12.3.5 DP001-MMD-DRW-UT-B-Z-3100-3117	Accept/Reject	N/A	Dockets / Material Data Sheets	R	SUB	R	Hold Point	
1.2	**Pits/Chamber**										
1.2.1	PCC Risers/Chambers With HN-HO-72 Load Bearing Capacity	Each Unit	CIV Spec - S12.3.3	Accept/Reject	N/A	Dockets / Material Data Sheets	R	SUB	R	Hold Point	
1.2.2	Access covers and frames Landside: 240 kN Class D Airside: 900 kN Class G	Each unit	CIV Spec - S9.3.8	Shop drawings, Dockets/ Visual Checks	N/A	Dockets / Technical Data Sheets	R	SUB	R	Hold Point	
1.3	**Concrete Mix**										
1.3.1	Standard Concrete Mix	Each Structure	CIV Spec - S13.3.1.1	Accept/Reject	N/A	Design Mix	R	SUB	R	Hold Point	
1.4	**Reinforcement**										
1.4.1	Reinforcement Bending Schedules	Each Structure	CIV Spec - S14.3.1	Accept/Reject	N/A	Dockets / Technical Data Sheets	R	SUB	R	Hold Point	
1.4.2	Bending Schedules	Each Structure	CIV Spec - S14.4.6	Accept/Reject	N/A	Dockets / Technical Data Sheets	R	SUB	R	Hold Point	
1.5	**Waterproofing**										
1.5.1	Pipe & Pit Waterproofing – Hydrotite CJ 0725 3K or Similar	Each Pipe and Structure	DP001-MMD-DRW-UT-B-Z-3100-3117	Accept/Reject	N/A	Dockets/ Technical Data Sheets	R	SUB	R		

Inspection and Test Plan

No.	Description Inspection / test	Frequency	Spec/standard	Acceptance Criteria	Measuring Devices	Reporting Format	Inspected by*			Hold Points Sign off	*Remarks*
							HCL	SC	Consult		
2	**Construction**										
2.1	**Pre-Condition Assessments**										
2.1.1	Survey Setout Chambers/Pits Position and Heights	Each Manhole	N/A	Survey Setout records and Setout pegs, Plans	GPS, Total Station	Setout CSV file, QC Checklist					Coordinates mentioned in plans
2.2	**Cast In-Situ Chamber Construction**										
2.2.1	Excavation Extents	Each element installed	CIV Spec - S13.4.1 CIV Spec - S4.5.9 (earthworks section)	N/A	Rotating level and GPS	N/A	M				
2.2.2	Chambers/Pits subgrade testing	Utility Access Chambers: 2 tests at the base of excavation	CIV Spec - S4.6.2.2 (earthworks section)	Bearing Capacity as mentioned in the drawings For cohesive soil Shear Vane Test at EGL (0.0m), 0.5m and 1.0m depths For non-cohesive soil scala test to 1m depth. Inspection required by engineer for acceptance	Shear Vane Scala Penetrometer	QC Checklist, Visual Checks, Excel & pdf	M	SUB	W	Witness Point	If ground failing, Engineer to advise MM will attend all witness points
2.2.3	200mm thick 20MPa concrete bedding	Each structure	DP001-MMD-DRW-UT-B-Z-3100-3117	Accept/Reject, 20MPa Concrete	N/A	QC Checklist, Dockets	M	SUB	R		
2.2.4	Formwork	Each Structure	CIV Spec - S13.4.2	Accept/Reject Dimension Accuracy, Alignment and position	GPS/ Total Station/ Rotating Laser	QC Checklist, As-Built drawings to confirm the tolerances	M	SUB	I		Engineer inspection will be done along with the reinforcement

Inspection and Test Plan

No.	Description Inspection / test	Frequency	Spec/standard	Acceptance Criteria	Measuring Devices	Reporting Format	Inspected by*			Hold Points Sign off	*Remarks*
							HCL	SC	Consult		
2.2.5	Reinforcement Laps	Each unit	CIV Spec - S14.4.7 DP001-MMD-DRW-CS-B-Z-3013	Accept/Reject	N/A	QC Checklist, Visual Checks	M/I	SUB			Reinforcement Laps to be followed as shown in the plans
2.2.6	Reinforcement fixing and spacing	Each Structure	CIV Spec - S14.4.8	Accept/Reject	N/A	QC Checklist, Visual Checks	M/I	SUB	I		
2.2.7	Concrete Cover/Spacer blocks	Each Structure	CIV Spec - S14.4.8 CIV Spec - S14.4.11 Shop Drawings	Min 50mm unless noted on plans	N/A	QC Checklist, Visual Checks	M/I	SUB	I		
2.2.8	Duct Penetrations and Water proofing	Each Duct	Plans and Shop Drawings	Penetration reinforcement installed as shown on the drawings, Hydrotite CJ 0725 3K wrapped around the duct	N/A	Pre-Pour QC Checklist	M/I	SUB	R		Refer to drawings, shop drawings and plans
2.2.9	Inspection of Reinforcement steel and Formwork	Each Structure	CIV Spec - S13.4.2	Accept/Reject Hydrotite CJ 0725 3K installed in construction joints as per drawings	N/A	QC Checklist, Visual Checks	R	SUB	I	Hold point	Back formwork shall not be placed until the Engineer Inspection is completed.
2.2.10	Concrete Placement	Each Structure	CIV Spec - S13.4.3.1	Mix Design Docket	N/A	Dockets, Pre-Pour QC Checklist	M	SUB	R		Pumping concrete to be done with prior approval.
2.2.11	Concrete Finish	Each Structure	CIV Spec - S13.4.5	Formed Structure Below Ground: F1 With Tanking: F4 Unformed Structures: Buried Foundations: U1 Exposed Foundations: U5	N/A	QC Checklist, Visual Checks	M	SUB	R		

Inspection and Test Plan

No.	Description Inspection / test	Frequency	Spec/standard	Acceptance Criteria	Measuring Devices	Reporting Format	Inspected by*			Hold Points Sign off	*Remarks*
							HCL	SC	Consult		
2.2.12	Concrete Testing Slump Test 4x Concrete Cylinder tests	Each Batch	CIV Spec - S13.5.3.2	1x Test results at 7 days 3x test results at 28 day Slump test during the concrete pour	N/A	Test Results, QC Checklist	R/M	SUB	R		
2.2.13	Grout Testing	Each Batch	CIV Spec - S13.5.3.3	Test at 28 days	N/A	Test Results	R/M	SUB	R		
2.3	**Mass Concrete Chambers**										
2.3.1	Formwork	Each Structure	CIV Spec - S13.4.2 CIV Spec - S13.4.3.2	Accept/Reject Dimension Accuracy, Alignment and position	GPS/ Total Station/ Rotating Laser	QC Checklist, Visual Checks	M	SUB	I	Hold Point	
2.3.2	Concrete Placement	Each Structure	CIV Spec - S13.4.3.2	20MPa Concrete	N/A	Dockets, Pre-Pour QA Checklist	M	SUB	R		
2.3.3	Duct Penetrations and Water proofing	Each Duct	Plans and Shop Drawings	As shown on the drawings, Hydrotite CJ 0725 3K wrapped around the pipe	N/A	Pre-Pour QA Checklist	M/I	SUB	R		Refer to Shop drawings and Plans

Inspection and Test Plan

No.	Description Inspection / test	Frequency	Spec/standard	Acceptance Criteria	Measuring Devices	Reporting Format	Inspected by*			Hold Points Sign off	*Remarks*
							HCL	SC	Consult		
2.3.4	Curing	Each structure	CIV Spec - S13.4.3.6	A1/A2 Environment: 3 Days B1/B2 Environment: 7 Days	N/A	QC Checklist	M	SUB	R		
2.3.5	Grouting of Ducts and Voids	Each Duct and Each Structure	CIV Spec - S13.4.3.7	All voids, and gaps of duct penetrations	N/A	QC Checklist	M	SUB	I		
2.3.6	Backfilling GAP65 or AP40	Each Structure	CIV Spec - S13.4.4 Table 4.3 (Earthworks Section)	CIV > 25 Clegg Test corelated to an NDM	Clegg Hammer	QC Checklist, QVC, Clegg Sheets	M	SUB	R	Witness Point	Engineer to inspect before backfilling
2.3.7	Concrete Finish	Each Structure	CIV Spec - S13.4.5	Formed Structure Below Ground: F1 With Tanking: F4 Unformed Structures: Buried Foundations: U1 Exposed Foundations: U5	N/A	QC Checklist, Visual Checks	M	SUB	R		
2.3.8	Concrete Testing Slump Test 4x Concrete Cylinder tests	Each Batch	CIV Spec - S13.5.3.2	1x Test results at 7 days 3x test results at 28 day Slump test during the concrete pour	N/A	Test Results, QC Checklist	R/M	SUB	R		
2.3.9	Grout Testing	Each Batch	CIV Spec - S13.5.3.3	Test at 28 days	N/A	Test Results	R/M	SUB	R		
3.0	**Post Construction**										
3.1	As built Works	Each Chamber	CIV Spec - S12.4.10 CIV Spec - S13.4.7	Position tolerance +/- 20mm Level Tolerance 0mm to +3mm	Surveyor Equipment, Total Station	Certified As-built PDF and DWG file	R	SUB	R		

5. Document Deliverables *(The documents listed below shall be completed and compiled during the course of the construction)*

Results of Compactions	EPD Certificate if applicable
Material Certificates	As Built
QC records	

6. Distribution Records

Name	Position	Company	Date
TBA		Mott McDonalds	
TBA		BECA	
TBA		AIAL	

- Inspect (I) – To visually examine or measure an item or contracted work operation to verify its conformance to predetermined quality requirements
- Review (R) – To examine any form of documentation to establish its acceptability against specified requirements
- Surveillance (S) – To observe in-process activities to the degree necessary to be assured that they comply with the established criteria
- Test (T) – To subject a component, structure, or system to a controlled set of physical, chemical, environmental or operational conditions to determine or verify its capability to meet specified requirements
- Witness (W) – To watch over, observe or visually examine a specific work operation or test performed by others under Contractor supervision
- Monitor (M) – General oversight of work in progress with no need to document formally.
- Submission (Sub) – Submission of a document

Note: The Engineer shall be provided a minimum of two (2) working days' notice ahead of a requested inspection.