COMMISSIONING INSPECTION REQUEST (CIR)

MIDFIELD TERMINAL BUILDING, ABU DHABI INTERNATIONAL AIRPORT

SECTION A - CIR

ATP REFERENCE :

ATP-44005

*Please attach ATP Cover Sheet Scanned after each ATP Stage

ATP STAGE 01 : 27/07/2017 00:00

**ATP Stage 01 Date from the first ATP

ATP STAGE 02 : 27/07/2017 00:00

ATP STAGE 03 : 14/04/2019 00:00

ATP STAGE 04 : 14/04/2019 00:00

**ATP Stage 04 Date from the last ATP

CIR NUMBER : COM-CIR-0401-M-02183

TO : CXA - Core Emirates

REV :

LOCATION : 05-CSP

LEVEL : L0.0

LOCATION DETAIL : CSP/L0.0/0533/PUMP ROOM

SUBSECTOR ZONE : 5.33C

DISCIPLINE : MECHANICAL

SUB-DISCIPLINE :

SYSTEM : HVAC SYSTEM

SUB SYSTEM : Chilled Water Pumps

SUB SYSTEM REF : CHWP-CS-L0.0-001 (PUMP-01)

EQUIPMENT REF : CHWP-CS-L0.0-001 (PUMP-01)

TGC CMS REFERENCE:

CMS REFERENCE : COM-0401-PCE-PR-0013

DESCRIPTION :

TAB CHILLED WATER PUMP - CHWP-CS-L0.0-001 (PUMP-01)

SUBCON ENGINEER:	Carlos Clemente	SUBCONTRACTOR :	PCEJV
ORIGINATOR :	Carlos Clemente	UNIQUE ID :	00971 -8807

SECTION B - CONTRACTOR

CONFIRMATION OF COMPLETED ATP PROCESS SATGE 4 SIGN-OFF :

NOTE : IF NO, RECORD REASON FOR PROGRESSING TO CIR WITHOUT ATP SIGN-OFF

CONTRACTOR COM-ENGINEER : Ahmed Mamdouh

OPERATION AND MAINTENANCE MANUAL REFERENCE :

DISICIPLINE :

MECH :	×	ELEC :	×	ELV :	×	PH :	×	FLS :	×
SAS :	×	BHS / HBSS :	×	LET :	×	PBB :	×	PBSS :	×

SECTION C - HOUSE OF EXPERTISE (HOE)

PROFIRE
Safety Consultants

HOE ASSIGNED :

HOE WITNESS :

HOE WITNESS DATE :

HOE COMMENTS :

HOE NAME :

HOE STATUS CODE :

HOE APPROVED DATE :

SECTION C - CONSULTANT

CONSULTANT ASSIGNED :

CONSULTANT WITNESS :

CONSULTANT WITNESS DATE :

CONSULTANT COMMENTS :

CONSULTANT NAME :

CONSULTANT STATUS CODE :

SIGNOFF DATE :

SECTION C - AECOM

ENGINEER WITNESS :

ENGINEER WITNESS DATE :

ENGINEER COMMENTS :

ENGINEER NAME :

ENGINEER STATUS CODE :

STATUS CODE DATE :

SECTION C - COMMISSIONING AUTHORITY (CxA)

CORE EMIRATES

CXA WITNESS :

CXA WITNESS DATE :

CXA COMMENTS :

CXA NAME : Jhun-Rio Tipan

FINAL STATUS CODE : 1-No Exception Taken

SIGNOFF DATE : 08/06/2022 13:15

COMMENTS FROM CXA, CONSULTANT, HOE DOES NOT RELEIVE THE CONTRACTOR OF ITS RESPONSIBILITIES UNDER THE CONTRACT

Attached Files

Filename	Upload No.	Uploaded By	Element Name
• COM-CIR-0401-M-02183.pdf	1	Carlos Clemente	

ZUTEC

Generated using Zutec Online Tools

Report created by: Carlo Estares

Report Timestamp: Wednesday 19 July 2023 06:02 AM

Local timezone: Europe/London

Section A Atp Reference	Section A Atp Stage 01 Date	Section A Atp Stage 02 Date	Section A Atp Stage 03 Date	Section A Atp Stage 04 Date	Section A Cir Number	Section A Rev	Section A Date Observed
ATP-44005	27/07/2017 00:00	27/07/2017 00:00	14/04/2019 00:00	14/04/2019 00:00	COM-CIR-0401-M-02183		24/04/2019 09:00

Section A To	Section A Subsector Zone	Section A Location	Section A Location Detail	Section A Level	Section A Disipline	Section A Sub Disipline	Section A System
CXA - Core Emirates	5.33C	05-CSP	CSP/L0.0/0533/PUMP ROOM	L0.0	MECHANICAL		HVAC SYSTEM

Section A Subsystem	Section A Subsystem Reference	Section A Cms Reference	Section A Equipment Reference	Section A Description	Section A Subcontractor Engineer	Section A Subcontractor	Section A Originator
Chilled Water Pumps	CHWP-CS-L0.0-001 (PUMP-01)	COM-0401-PCE-PR-0013	CHWP-CS-L0.0-001 (PUMP-01)	TAB CHILLED WATER PUMP - CHWP-CS-L0.0-001 (PUMP-01)	Carlos Clemente	PCEJV	Carlos Clemente

Section A Unique Id	Section B Atp Process Stage 4 Completed	Section B Atp Process Stage 4 Not Completed Reason	Section B Tcajv Com Engineer	Section B O And M Reference	Section C Discipline Mech	Section C Discipline Elec	Section C Discipline Elv
00971 -8807			Ahmed Mamdouh		No	No	No

Section C Discipline Sas	Section C Discipline Ph	Section C Discipline Bhs Hbss	Section C Discipline Fls	Section C Discipline Let	Section C Discipline Pbb	Section C Discipline Pbss	Section C Hoe Assigned
No	No	No	No	No	No	No	

Section C Hoe Witness	Section C Hoe Witness Date	Section C Hoe Engineer	Section C Hoe Comments	Section C Hoe Status Code	Section C Hoe Status Code Date	Section C Consultant Assigned	Section C Consultant Witness

Section C Consultant Witness Date	Section C Consultant Comments	Section C Consultant Name	Section C Consultant Status Code	Section C Consultant Status Code Date	Section C Engineer Witness	Section C Engineer Witness Date	Section C Engineer Comments

Section C Engineer Name	Section C Engineer Status Code	Section C Engineer Status Code Date	Section C Cxa Witness	Section C Cxa Witness Date	Section C Cxa Engineer	Section C Cxa Comments	Section C Cxa Status Code
					Jhun-Rio Tipan		1-No Exception Taken

Section C Final Status Code Date	Tgc Cms Reference
08/06/2022 13:15	

Review Status History

RS05 - CIR Review Complete - CODE1	**Reviewed By** Jhun-Rio Tipan **at** Wednesday 08 June 2022 10:15 AM
Comments:	
RS05 - CIR Review Complete - CODE2	**Reviewed By** Vidura Baddegama **at** Tuesday 02 July 2019 01:17 PM
Comments: Please see comments in CIR comments data base.	
RS02 - Submitted to CxA	**Reviewed By** Ahmed Mamdouh **at** Tuesday 23 April 2019 12:46 PM
Comments:	
RS01 - Submitted to TCAJV	**Reviewed By** Carlos Clemente **at** Tuesday 23 April 2019 07:41 AM
Comments:	
RS00 - CIR Draft	**Reviewed By** Carlos Clemente **at** Tuesday 23 April 2019 07:41 AM
Comments:	

MIDFIELD TERMINAL AUTHORITY TO PROCEED CERTIFICATE	ATP CEM-001	CORE EMIRATES COMMISSIONING — مطارات أبوظبي ABU DHABI AIRPORTS
SYSTEM: *CHWP-CS-L0.0-001*	CMS REF: *COM-0401-PCE-PR-0013*	
AREA: *CSP/L0.0/0533/Pump Room*	ZONE: *CSP, L0.0, Sector 5.33C*	
TYPE OF TEST: *TAB Chilled Water Pump -1*	SEQUENTIAL TEST NO:	
ATP - **44005**	This form records the ATP process for the system/element defined	

		Organisation	Name	Signature	Date
ATP 1	Identifies that all of the pre-requisites are met and the system/items are ready to test	Contractor	CARLOS CLEMENTE		27/07/17
		TCA-JV	A. Hassan		27/07/17
		Core- Emirates	P. Ribbens		30.07.17

		Organisation	Name	Signature	Date
ATP 2	Identifies that pre-commissioning is complete, approval to proceed with power on request and do start up checks	Contractor	CARLOS CLEMENTE		27/07/17
		TCA-JV	A. Hassan		27/07/17
		Core- Emirates	P. Ribbens		30.07.17.

		Organisation	Name	Signature	Date
ATP 3	Energisation/ start up checks complete, approval to proceed with commissioning activities	Contractor	CARLOS CLEMENTE		04/04/19
		TCA-JV	A. Hassan		04.04.19
		Core- Emirates	P. Ribbens		14.04.19

		Organisation	Name	Signature	Date
ATP 4	Identifies that commissioning activities are complete, approval to proceed with CIR	Contractor	CARLOS CLEMENTE		04/04/19
		TCA-JV	A. Hassan		04.04.19
		Core- Emirates	P. Ribbens		14.04.19

P. Ribbens
14 APR 2019
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CORE EMIRATES COMMISSIONING

Supporting Documentation Required

- WIR Reference Schedule
- Pre commissioning Check Sheets
- Approved Test Sheets
- Calibration certificates
- Marked- up drawings etc
- Other (please specify)

Pump Tested in Manual Mode Remote Test.

ATP-4 Comments Compliance Statement

PCE JV

Project : Midfield Terminal Building, Abu Dhabi International Airport	ATP No.	Date of CxA Sign	Response Submitted to : CxA
	44005	14/04/19	Date : 17/04/19

Subject(s) : TAB CHWP-CS-L0.0-001 (Pump-1)	Comment By: CxA Paul Ribbens	Revision	Response by: PCEJV
	Comment Date : 14/04/19	0	Date : 17/04/19

Item No.	Comments	Response	Remarks
1	Pressure gauges to be recalibrated during final SOP witnessing	Noted	
2	Pump tested in manual mode only	Noted	During the demonstration for D1 and D2 pump should be in manual mode only.
3	All copper capillary tubing on the pressure differential sensors on each pump to be changed on final witness of SOP, very poor condition with kinks in copper line.	Noted and will progress upon clearances prior room closure and room completion hand over. This will be verified the same by TCAJV / CxA site walk (snagging).	
4	Plant room under scaffolding for cable rectification and cladding works to start. Protection to pumps and equipment is recommended.	Noted	
5	Full plant room requires full deep clean, pump sets are extremely dirty dusty.	Noted	
6	Noise level to be done during final SOP demo and wilh all outstanding cladding complete with all scaffolding removed with all HVAC running in Auto.	Noted	
7	Future pump 11 main valves to be locked shut. Large dead leg, Maintenance work will need to be implicated to drain and maintain quality of water within the pipes header, Flow & return.	Noted	
8	All Main pump couplings require treatment from rust.	Noted: This will be checked periodically by the maintenance team	
9	Check that all Binder caps have been replaced on all Orifice measuring devices, located on the discharge lines of main pumps.	Noted and will progress upon clearances prior room closure and room completion hand over. This will be verified the same by TCAJV / CxA site walk (snagging).	
10	Ultra sonic meter Pump 7 not working during test, check during D2 witnessing or SOP. All Ultra sonic read outs to be conmmissioned and working during final Demo.	Comply	

ATP-4 Comments Compliance Statement

PCE JV

Project : Midfield Terminal Building, Abu Dhabi International Airport	ATP No.	Date of CxA Sign	Response Submitted to : CxA
	44005	14/04/19	Date : 17/04/19

Subject(s) : TAB CHWP-CS-L0.0-001 (Pump-1)	Comment By: CxA Paul Ribbens	Revision	Response by: PCEJV
	Comment Date : 14/04/19	0	Date : 17/04/19

Item No.	Comments	Response	Remarks
11	Pump 4 leaking discharge gland from rubber joint, leaking through insulation, to be checked.	Noted and will be rectified	
12	ABB inverter drive control screen defected on pump 10, removed and changed from pump 8, unable to see parameter settings.	Noted and will be rectified	
13	Pump curve to confirm plotted results with 50Hz. Curve highlights higher flow than actual flow performance sheets.	Performance sheet was obtained through the orifice plate. Shut off head just to check the impeller size and flow rate with high pressure. See attached pump curve	
14	Pump-8 broken shaft investigation with LAB results to be issued from PCEJV. Pump 8 replaced with new shaft and coupling with new rubbers	Noted	
15	Pump 4, 8 & 9 are tripping during 50Hz tests. Full test will be carried out during SOP	Noted	
16	Pump Set Data Sheet - change suction discharge to Bar pressure and not meter head as per recorded on pump room pressure gauges.	Comply	
17	Temporary labels have been fitted on pump sets, and valves, final labels have yet to be fitted to all pumps. Pipe work labeling including ID with flow and return headers will be implicated during final cladding and with labeling. All valves to be ID for system A & B flow and return and from which pump.	Noted :Permanent identification tags and labeling will progress upon clearances prior to room closure and room completion hand over.	
18	Plant room schematics to be fitted on final handover of plant room, this will highlight all valves and equipment within the plant room for easy maintenance for equipment ID/location. When will this be done and has the schematic and labels been finalized.	Noted:This will be completed prior to room closure and room completion hand over.	

P Ribbens
18 APR 2019
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Notes:	Response By:	Carlos Clemente
	Signed	
	Date	17/04/19

CxA ATP Comments Sheet – ATP-4 Sign off

CORE EMIRATES COMMISSIONING

ABU DHABI AIRPORTS

CIR Number :	**CIR not raised yet. Comments only for ATP pack.**	**CIR Revision :**	**N/A**
ATP Number :	44005 Part 1		
System :	**Chilled Water Pump Numbers 1 to 10**	**Building :**	**MTB Main CHW Plant Room**

1.	Pressure gauges to be recalibrated during final SOP witnessing.
2.	Pumps tested in Manual mode only.
3.	All copper capillary tubing on the pressure differential sensors on each pump to be changed on final witness of SOP, very poor condition with kinks in copper line.
4.	Plant room under scaffolding for cable rectification and cladding works to start. Protection to pumps and equipment is recommended.
5.	Full plant room requires full deep clean, pump sets are extremely dirty dusty.
6.	Noise levels to be done during final SOP demo and with all outstanding cladding complete with all scaffolding removed with all HVAC running in Auto.
7.	Future pump 11 main valves to be locked shut. Large dead leg, Maintenance work will need to be implicated to drain and maintain quality of water within the pipes header, Flow & Return.
8.	All Main pump couplings require treatment from rust.
9.	Check that all Binder caps have been replaced on all Orifice measuring devices, located on the discharge lines of main pumps.
10.	Ultra sonic meter Pump 7 not working during test, check during D2 witnessing or SOP. All Ultra sonic read outs to be commissioned and working during final Demo.

Commented By :		
Name	**Signature**	**Date**
P. Ribbens		14 APR 2019

REVIEWED CORE EMIRATES COMMISSIONING

11.	Pump 4 leaking discharge gland from rubber joint, leaking through insulation, to be checked.
12.	ABB Inverter drive control screen defected on pump 10, removed and changed from pump 8, Unable to see control parameters settings.
13	Pump curve to confirm plotted results with 50Hz. Curve highlights higher flow than actual flow performance sheets.
14	Pump 8 broken shaft investigation with LAB results to be issued from PCEJV. PUMP 8, replaced with NEW shaft and coupling with new rubbers.
15.	Pumps 4, 8 & 9 are tripping during 50Hz test. Full tests will be carried out during SOP
16.	Pump Set Data sheet – change suction discharge to Bar pressure and not meter head as per recorded on pump room pressure gauges.
17.	Temporary labels have been fitted on pump sets, and valves, final labels have yet to be fitted to all pumps. Pipe work labeling including ID with flow and return headers will be implicated during final cladding and with labeling. All Valves to be ID for system A & B flow and return and from which pump.
18.	Plant room schematics to be fitted on final handover of plant room, this will highlight all valves and equipment within the plant room from easy maintenance for equipment ID/location. When will this be done and has the schematic and labels been finalized.

Commented By :		
Name	**Signature**	**Date**
		P. Ribbens 14 APR 2019 REVIEWED CORE EMIRATES COMMISSIONING

مشروع المطار الجديد MIDFIELD TERMINAL PROJECT	SYSTEM ACCEPTANCE TEST REPORT	SAT1 3.15	

Project	Midfield Terminal Building, Abu Dhabi International Airport	**CIR No.**				
Client	Abu Dhabi Airport Company	**Date**	3-Apr-2019			
Location	CSP/L0.0/0553 - Pump Room	**Sheet**	1	Of	Of 31	Rev
System	CHWP-CS-L0.0-001	**CP Ref.**	COM-0401-PCE-PR-0025			

Project Bodies

Owner	Abu Dhabi Airport Company
Construction Manager	AECOM
Commissioning Authority	Core Emirates
Main Contractor	TCAJV
Sub Contractor	PCEJV
TAB Subcontractor	AJB Hightech Ltd.

TAB Firm Data

Name	**AJB Hightech Ltd.**
Address	**Suite 1202, Tameem House, Tecom P.O. Box 66576, Dubai UAE**
Certification Number	**17-10-08**
	Adam Muggleton

AABC ACCEPTANCE

AABC Certified Professional	
Name	Adam Muggleton
Signature	

For Rectification ☐
For Inspection ☐
Final ☐

Certified Professional Signature Is Required Only For The Final Report.

	Tested by:	**PCEJV**	**TCAJV**	**Core Emirates**	**AECOM**
Name	J.Dulay/R.Miguel	Carlos Clemente	D. Dagdan	P. Ribbens	
Signature					
Date	1-Apr-19	1-Apr-19	04.04.19	14 APR 2019	

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مشروع المطار الجديد MIDFIELD TERMINAL PROJECT	COMMISSIONING RECORD SHEET	TC1	
	TABLE OF CONTENT	3.15	

Project	Midfield Terminal Building, Abu Dhabi International Airport	**Sheet ref.**	Package: Mechanical		Building: CSP	
Client	Abu Dhabi Airport Company	Equipment/Plant ref.: CHWP-CS-L0.0-001	Sheet: 2	Of: 31	Rev	
Location	CSP/L0.0/0553 - Pump Room	**System:**	**SECONDARY PUMP**			
Area serve	Chilled Water System	**Date of measure:**	1-Apr-19			

مشروع المطار الجديد MIDFIELD TERMINAL PROJECT	COMMISSIONING RECORD SHEET	C1	
	CERTIFICATION REPORT	3.15	

Project	Midfield Terminal Building, Abu Dhabi International Airport	**Sheet ref.**	Package: Mechanical		Building: CSP	
Client	Abu Dhabi Airport Company	Equipment/Plant ref.: CHWP-CS-L0.0-001	Sheet: 3	Of: 31	Rev	
Location	CSP/L0.0/0553 - Pump Room	**System:**	SECONDARY PUMP			
Area serve	Chilled Water System	**Date of measure:**	1-Apr-2019			

CERTIFICATION

PROJECT **Abu Dhabi International Airport - Midfield Terminal Building**

THE DATA PRESENTED IN THIS REPORT IS A RECORD OF SYSTEM MEASUREMENTS AND FINAL ADJUSTMENTS THAT HAVE BEEN OBTAINED IN ACCORDANCE WITH THE CURRENT EDITION OF THE PROCEDURAL STANDARDS FOR TESTING, ADJUSTING, AND BALANCING OF ENVIRONMENTAL SYSTEMS. ANY VARIANCES FROM DESIGN QUANTITIES, WHICH EXCEED AABC TOLERANCES, ARE NOTED IN THE TEST-ADJUST- BALANCE REPORT PROJECT SUMMARY.

SUBMITTED & CERTIFIED BY: ADAM MUGGLETON

CERTIFICATION NO: **17-10-08** CERTIFICATION EXPIRATION DATE: _____

REPORT DATE: _____

CERTIFIED PROFESSIONAL NAME: Adam Muggleton

CERTIFIED PROFESSIONAL SIGNATURE:

مشروع المطار الجديد
MIDFIELD TERMINAL PROJECT

SITE INSTRUMENTATION RECORD LOG SHEET

IRL1
3.15

Project	Midfield Terminal Building, Abu Dhabi International Airport	Sheet ref.	Package: Mechanical	Building: CSP	
Client	Abu Dhabi Airport Company	Equipment/Plant ref.: CHWP-CS-L0.0-001	Sheet: 4	Of: 31	Rev
Location	CSP/L0.0/0553 - Pump Room Pump -1	**System:**	**SECONDARY PUMP**		
Area serve	Chilled Water System	**Date of measure:**	1-Apr-19		

Instrument Type	Manufacturer	Model	Serial no.	Reference*	Last calibrated	Next cal. due	Notes
Water Meter	PODDY METER	6000/WF	W6091	-	21-May-18	20-May-19	
Clamp Multimeter	Hioki	3280-10	140908237	-	18-Dec-18	17-Dec-19	
Tacometer	Lutron	DT-2236	278474	-	21-May-18	20-May-19	

** All instruments must be identified with a unique, permanently affixed reference.* *Attach calibration certificates.*

	Submitted by : AJB	Checked by : PCEJV	Checked by : TCAJV	Checked by : P.Core Emirates	Accepted by : AECOM
Name	J.Dulay/R.Miguel	Carlos Clemente	O. Hassan		
Sinature				14 APR 2019	
Date	1-Apr-19	1-Apr-19	04.04.19	REVIEWED CORE EMIRATES COMMISSIONING	

مشروع المطار الجديد MIDFIELD TERMINAL PROJECT	COMMISSIONING RECORD SHEET	ABL	
	ABBREVIATION LIST	3.15	

Project	Midfield Terminal Building, Abu Dhabi International Airport	**Sheet ref.**	Package: Mechanical		Building: CSP	
Client	Abu Dhabi Airport Company	Equipment/Plant ref.: CHWP-CS-L0.0-001	Sheet: 5	Of: 31	Rev	
Location	CSP/L0.0/0553 - Pump Room	**System:**	**SECONDARY PUMP**			
Serve Area	Chilled Water System (Pump - 1)	**Date of measure:**	1-Apr-19			

PICV= Pressure independent control Valve

Kv = Valve Constant

L/S = Liter Per Second

Δ = Difference or Change (Final - Initial)

H = Head (m)

L = Length

NPSH = Net Positive Suction Head (m)

P = Pressure

ΔP = Pressure Difference

P.F. = Power Factor (cos())

P = Power (watts)

V = Volts (E)

W = Watts or Power

°C = Degrees Celsius

Nomenclatures: Electrical

A = Amps (I)

E = Volts (V)

FLA = Full Load Amps

I = Amps (A)

kW = Kilowatt

مشروع المطار الجديد MIDFIELD TERMINAL PROJECT	COMMISSIONING RECORD SHEET	SD	
	SYSTEM DESCRIPTION	3.15	

Project	Midfield Terminal Building, Abu Dhabi International Airport	**Sheet ref.**	Package: Mechanical		Building: CSP	
Client	Abu Dhabi Airport Company	Equipment/Plant ref.: CHWP-CS-L0.0-001	Sheet: 6	Of: 31	Rev	
Location	CSP/L0.0/0553 - Pump Room	**System:**	**SECONDARY PUMP**			
Serve Area	Chilled Water System	**Date of measure:**	1-Apr-19			

مشروع المطار الجديد MIDFIELD TERMINAL PROJECT	PRE-COMMISSIONING CHECKLIST	PC2	
	CHILLED WATER SYSTEM	3.15	

Project	Midfield Terminal Building, Abu Dhabi International Airport	**Sheet ref.**	Package: Mechanical	Building: CSP	
Client	Abu Dhabi Airport Company	Equipment/Plant ref.: CHWP-CS-L0.0-001	Sheet: 7	Of: 31	Rev:
Location	CSP/L0.0/0553 - Pump Room	**System:**	**SECONDARY PUMP**		
Area serve	Chilled Water System Pump -1	**Date of measure:**	1-Apr-19		

Check That	Status*	Signature	Date
Drive sets are secure and alignment correct.	✓		5-May-18
Pump is completely primed and system venting has been carried out satisfactory.	✓		5-May-18
Pump rotation is correct.	✓		5-May-18
All valves and accessories are installed.	✓		5-May-18
Safety guards and panels fitted and secure.	✓		5-May-18
Motor, pump and drive are free from undue noise.	✓		5-May-18
All strainers and dirt pocket are clean.	✓		5-May-18
All PICVs are set as per manufacturer's information.	N/A		
Verify conditions / loads for equipment maximum performance. All system valves are fully open and bypass valves closed including the future extension valves.	✓		5-May-18
Confirm that BMS activities are not going to adversely affect the TAB procedures.	✓		5-May-18
VFD commissioned for secondary pumps and protection settings inputted by the Manufacturer/Supplier.	✓		5-May-18
Pump discharge pressure does not exceed system design pressure.	✓		1-Apr-19
Motor current does not exceed the Full load Current and is balanced between phases.	✓		1-Apr-19
All chilled water pump identification tags and labelling works are complete.	✓		1-Apr-19

* ✓ = satisfactory, X = unsatisfactory, na = not applicable *See also final inspection checklist*

	Tested by: AJB	Witnessed by : PCEJV	Witnessed by : TCAJV	Witnessed by : Core Emirates	Approved by : AECOM
Name	J.Dulay/R.Migue1	Carlos Clemente	D. Haffar	P. Ribbens	
Sinature				14 APR 2019	
Date :	1-Apr-19	1-Apr-19	04.04.19	REVIEWED CORE EMIRATES COMMISSIONING	
Instrument Used:					

مشروع المطار الجديد MIDFIELD TERMINAL PROJECT	COMMISSIONING REPORT SHEET	CR1 3.15	

Project	Midfield Terminal Building, Abu Dhabi International Airport	**Sheet ref.**	Package Mechanical	Building CSP	
Client	Abu Dhabi Airport Company	Equipment/Plant ref. CHWP-CS-L0.0-001	Sheet 8	Of 14	Rev
Location	PUMP STATION, ROOM 553	**System:**	**SECONDARY PUMP**		
Area serve	Chilled Water System (PUMP-1)	**Date of measure:**	1/4/19		

The System consist of ten (10) installed in parallel pumps one (1) standby and nine (9) duty each pump has 470l/s

Total flowrate with pump running is 4230l/s and system flow rate is 6334.8l/s which we have diversity of 66.7%.

Total pump flow rate was obtained by summation of orifice plate reading is 4506 l/s which is 107% vs 4194 l/s

at 49.9Hz, 1490 rpm.

Shut off head was performed

PUMP 4, 8 & 9 are tripping at 49.9hz.

All Pumps To Be Checked During SOP Testing with Trip Point Issues.

P. Ribbens

14 APR 2019

REVIEWED CORE EMIRATES COMMISSIONING

Pump 1 Tested in manual mode during Test. Also To Be Completed During SOP.

Engineer	JEREMEE	**Report No.**	
Signature		**Date**	1/4/19

مشروع المطار الجديد
MIDFIELD TERMINAL PROJECT

COMMISSIONING RECORD SHEET

PUMP SET DATA

W1 | 3.15

Project	Midfield Terminal Building, Abu Dhabi International Airport	**Sheet ref.**	Package: Mechanical	Building: CSP	
Client	Abu Dhabi Airport Company	Equipment/Plant ref.: CHWP-CS-L0.0-001	Sheet: 9	Of: 14	Rev:
Location	PUMP STATION, ROOM 553	**System:**	**SECONDARY PUMP**		
Area serve	Chilled Water System (PUMP-1)	**Date of measure:**	1-Apr-19		

SYSTEM DATA	**DESIGN**		**OBTAINED**							
Pump flow rate	470	l/s	487.97	l/s	**104%**	%				
Pump head	50	M	Suction	3.0	Bar	Discharge	7.6	Bar	ΔP	4.6 Bar
Pump closed head	73.45	M	Suction	3.3	Bar	Discharge	10.8	Bar	ΔP	7.5 Bar
Pump speed	1495	rev/m	VFD = 1490 / Tacometer = 1489							rev/m
Motor speed	1490	rev/m	VFD = 1490 / Tacometer = 1489							rev/m
Main reg. valve reference	N/A		Main reg. valve setting	N/A						

Method used to obtain pump flow rate: Measuring station (Orifice Plate) installed on discharge pipe

PUMP DATA	Type	Centrifugal Pump	Ordered duty	470 l/s	50	M
Manufacturer	SIEMENS		Model	OMEGA 300-435 B SB		
Serial no.	316390		Impeller dia.	436		mm
MOTOR DATA	Type	4P	Frame	355	Service factor	1.15
Manufacturer	SIEMENS		Serial no.	N-E81427501020001		
Rated power	300	kW	Actual power	264		kW
Electrical supply	400/3/50	V/ph/Hz	Measured voltage	402		V
FLC.	530	amps	Running current	492		amps
Overload range	VFD	amps	Setting	609.5		amps
VFD DATA	Make	ABB	Voltage	401		V
KW	355	KW	Current	494		amps
Frequency	50	Hz	VFD Setting @ time of test	49.9		Hz
DRIVE DATA	No. of belts	N/A	Belt size	N/A		
Motor pulley N/A	groove x	N/A mm	Pump pulley	N/A	groove x	N/A mm

COMMENTS The pump was direct driven, 9 pumps at 50Hz time of test.

As per manufacturer, VFD overload range = FLC x Service Factor.

	Tested by: AJB	**Witnessed by : PCEJV**	**Witnessed by : TCAJV**	**Witnessed by : Core Emirates**	**Approved by : AECOM**
Name	J.DULAY/R.MIGUEL	CARLOS CLEMENTE		P. Ribbens	
Signature				18 APR 2019	
Date :	1-Apr-19	1-Apr-19	04.04.19	REVIEWED CORE EMIRATES COMMISSIONING	

Instrument Used: PODDY METER, CLAMP METER, TACO METER

مشروع المطار الجديد
MIDFIELD TERMINAL PROJECT

COMMISSIONING RECORD SHEET

WATER BALANCE REPORT

W2a | 3.15

Project	Midfield Terminal Building, Abu Dhabi International Airport	**Sheet ref.**	**Package** Mechanical	**Building** CSP	
Client	Abu Dhabi Airport Company	**Equipment/Plant ref.** CHWP-CS-L0.0-001	**Sheet** 10	**Of** 31	**Rev**
Location	CSP/L0.0/0553 - Pump Room	**SECONDARY System:**	**SECONDARY PUMP**		
Area s	**Chille** Chilled Water System - pump -1	**Date of measure:**	1-Apr-19		

Nos	Valve Reference	Manufacturer	Model	Location	Valve Size (mm)	KV Value (Open)	Design Flow (L/s)	Self balancing Valves			Initial Reading		Final Reading				
								Min. Diff Pressure (kpa)	Max. Diff Pressure (kpa)	Dial Setting	(kpa)	(L/s)	Valve setting	Kv.	(kpa)	(L/s)	%flow
1	CHWP-CS-L0.0-001	OVENTROP	ART-NR	Pump Room	600	6250	470.00	N/A	N/A	N/A	7.9	487.97	N/A	6250	7.9	487.97	104%

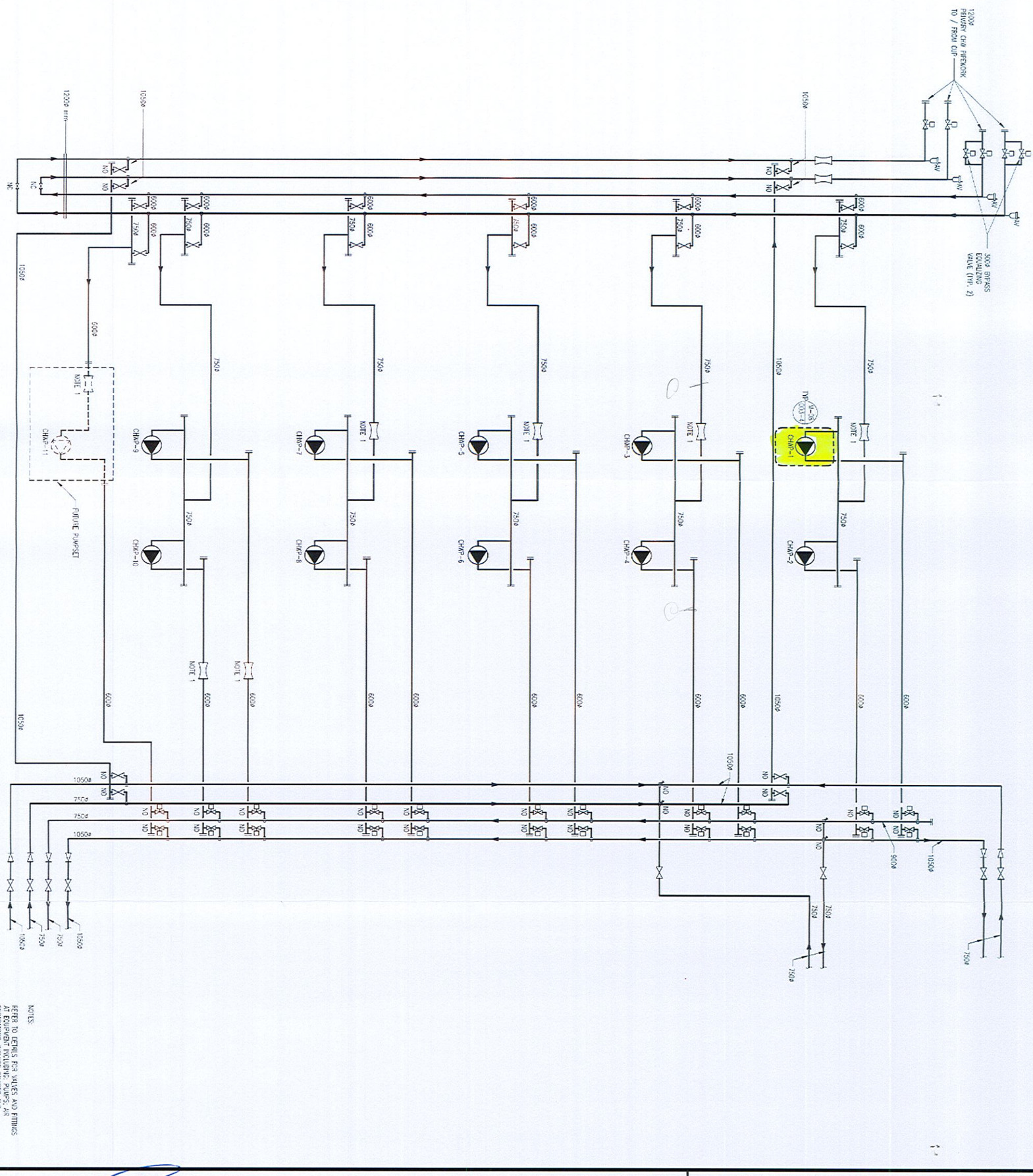
	Design Flow L/S	Preliminary Flow L/S	Final Flow L/S	Percentage of Final Flow
Total flow	470.00	487.97	487.97	104%

Note: Please refer to the commissioning report for comments.

	Tested by: AJB	Witnessed by: PCEJV	Witnessed by: TCAJV	Witnessed by: [illegible]	Approved by : AECOM
Signature	J.Dulay/R.Miguel	Carlos Clemente	D. Haggan	P. Ribbens	
Print Name				14 APR 2019	
Date	1-Apr-19	1-Apr-19	04.04.19	REVIEWED CORE EMIRATES COMMISSIONING	
Instrument used					

مشروع المطار الجديد MIDFIELD TERMINAL PROJECT	COMMISSIONING RECORD SHEET	SD1	
	SYSTEM DIAGRAM	3.15	

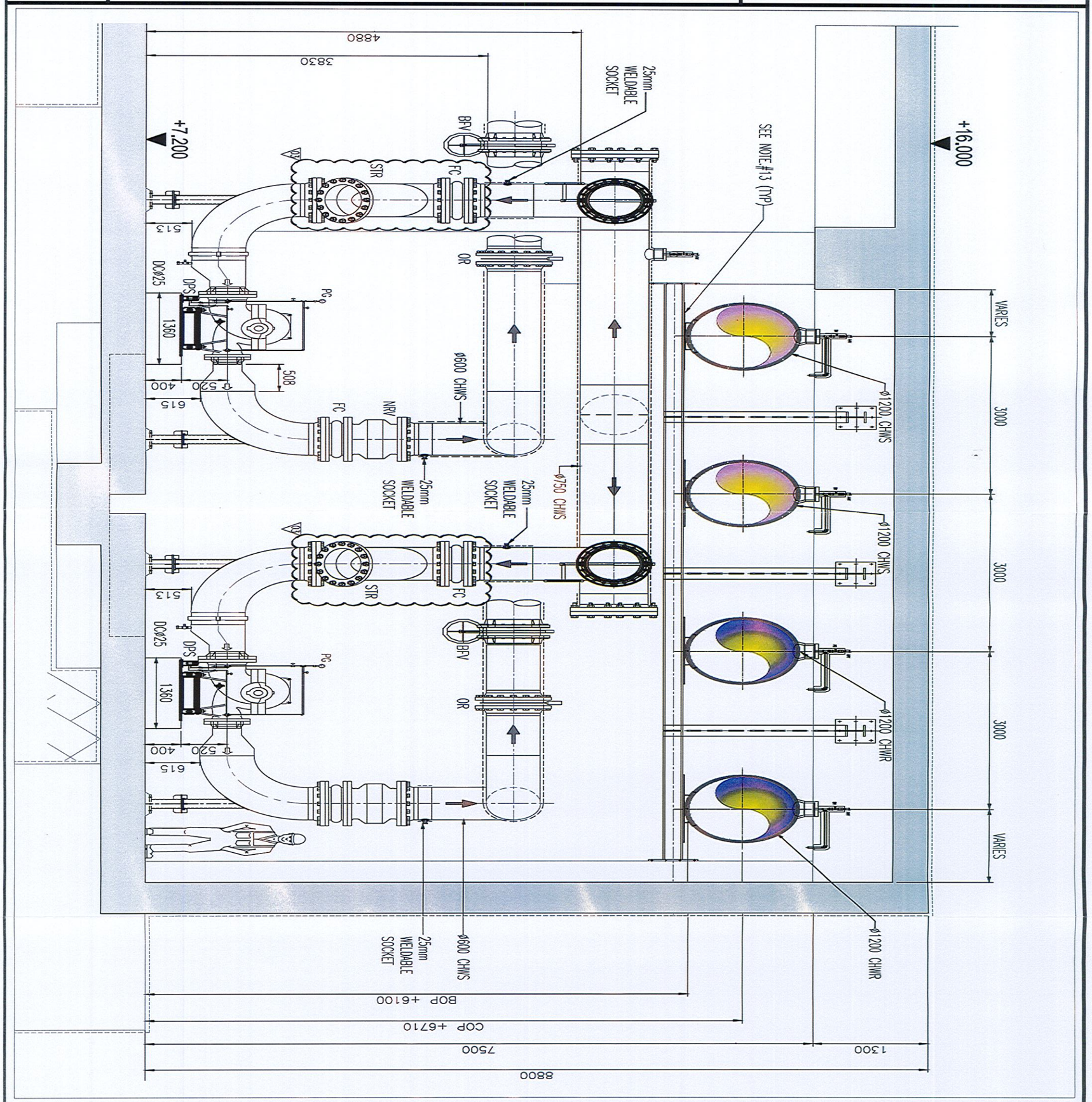
Project	Midfield Terminal Building, Abu Dhabi International Airport	**Sheet ref.**	Package: Mechanical		Building: CSP	
Client	Abu Dhabi Airport Company	Equipment/Plant ref.: CHWP-CS-L0.0-001	Sheet: 11	Of: 31	Rev	
Location	CSP/L0.0/0553 - Pump Room	**System:**	**SECONDARY PUMP**			
Area serve	Chilled Water System (Pump - 1)	**Date measure:**	1-Apr-19			



Drawn by :	Date :

مشروع المطار الجديد MIDFIELD TERMINAL PROJECT	COMMISSIONING RECORD SHEET	SD1	
	SYSTEM DIAGRAM	3.15	

Project	Midfield Terminal Building, Abu Dhabi International Airport	**Sheet ref.**	Package Mechanical	Building CSP	
Client	Abu Dhabi Airport Company	Equipment/Plant ref. CHWP-CS-L0.0-001	Sheet 12	Of 31	Rev
Location	CSP/L0.0/0553 - Pump Room	**System:**	**SECONDARY PUMP**		
Area serve	Chilled Water System (PUMP-1)	**Date measure:**	1-Apr-19		



Note: Identical Details for Pumps(01,02) & (03&04) & (05&06) & (07,08) & (09,10)

Drawn by :	**Date :**

مشروع المطار الجديد MIDFIELD TERMINAL PROJECT	COMMISSIONING RECORD SHEET	PPC1	
	PUMP PERFORMANCE CURVE	3.15	

Project	Midfield Terminal Building, Abu Dhabi International Airport	**Sheet ref.**	Package: Mechanical	Building: CSP	
Client	Abu Dhabi Airport Company	Equipment/Plant ref.: CHWP-CS-L0.0-001	Sheet: 13	Of: 14	Rev
Location	PUMP STATION, ROOM 553	**System:**	**SECONDARY PUMP**		
Area serve	Chilled Water System (PUMP-1)	**Date measure:**	**1-Apr-19**		

Secondary Chilled Water Pump - 1

Total Design volume(l/s) = 470

Total Head (M) = 50

Design Fan RPM= 1495

Impeller Size(mm)= 436

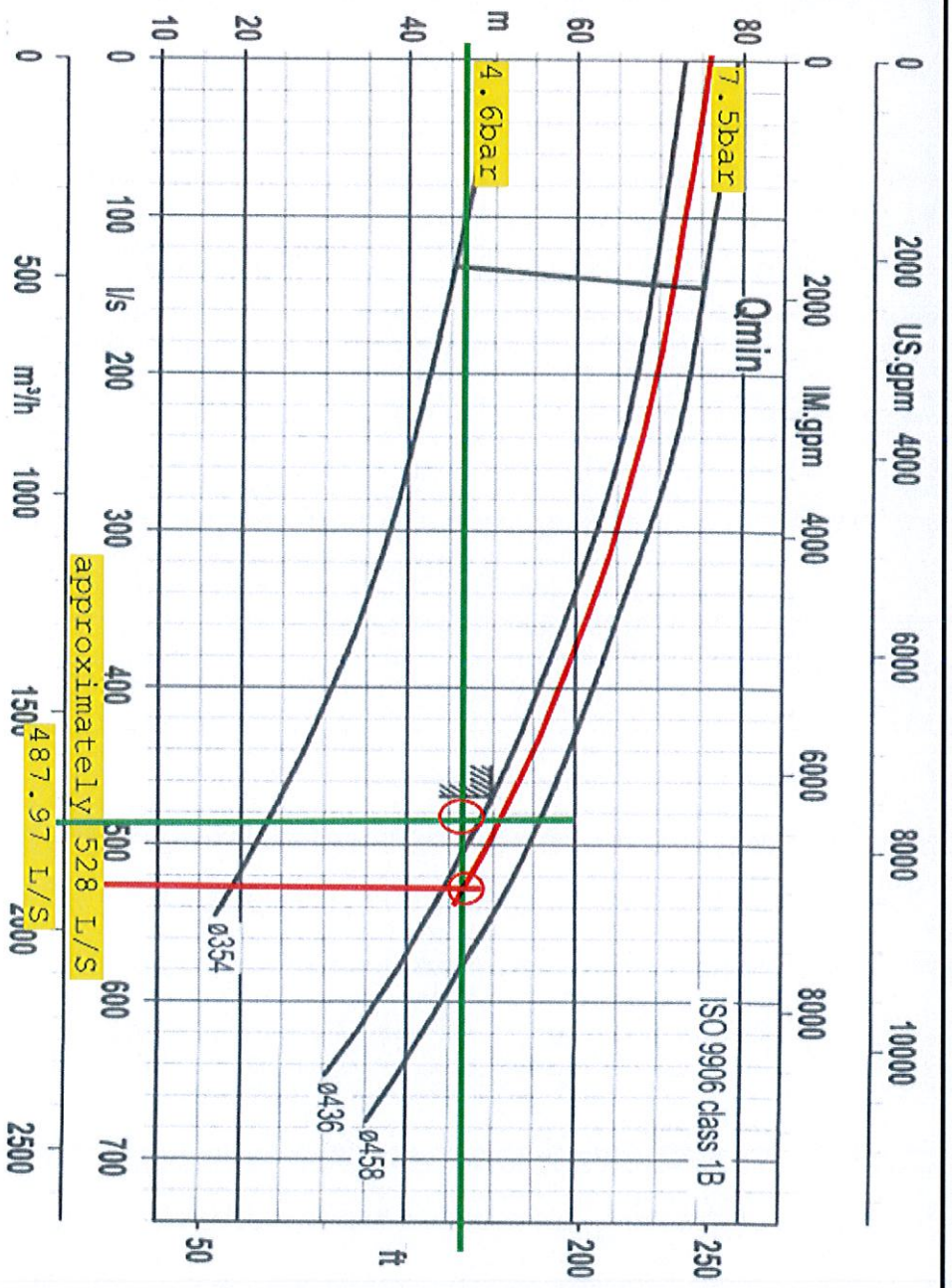
Total Actual Volume(l/s)= 487.97 L/S

Total Actual Head(M)= 46.9

Actual fan RPM=1489

9 pumps running at 49.9 hz
Shut off head predicted flow from 4.6bar and 7.5 bar is 528 l/s which is 112% of 470 l/s at D1

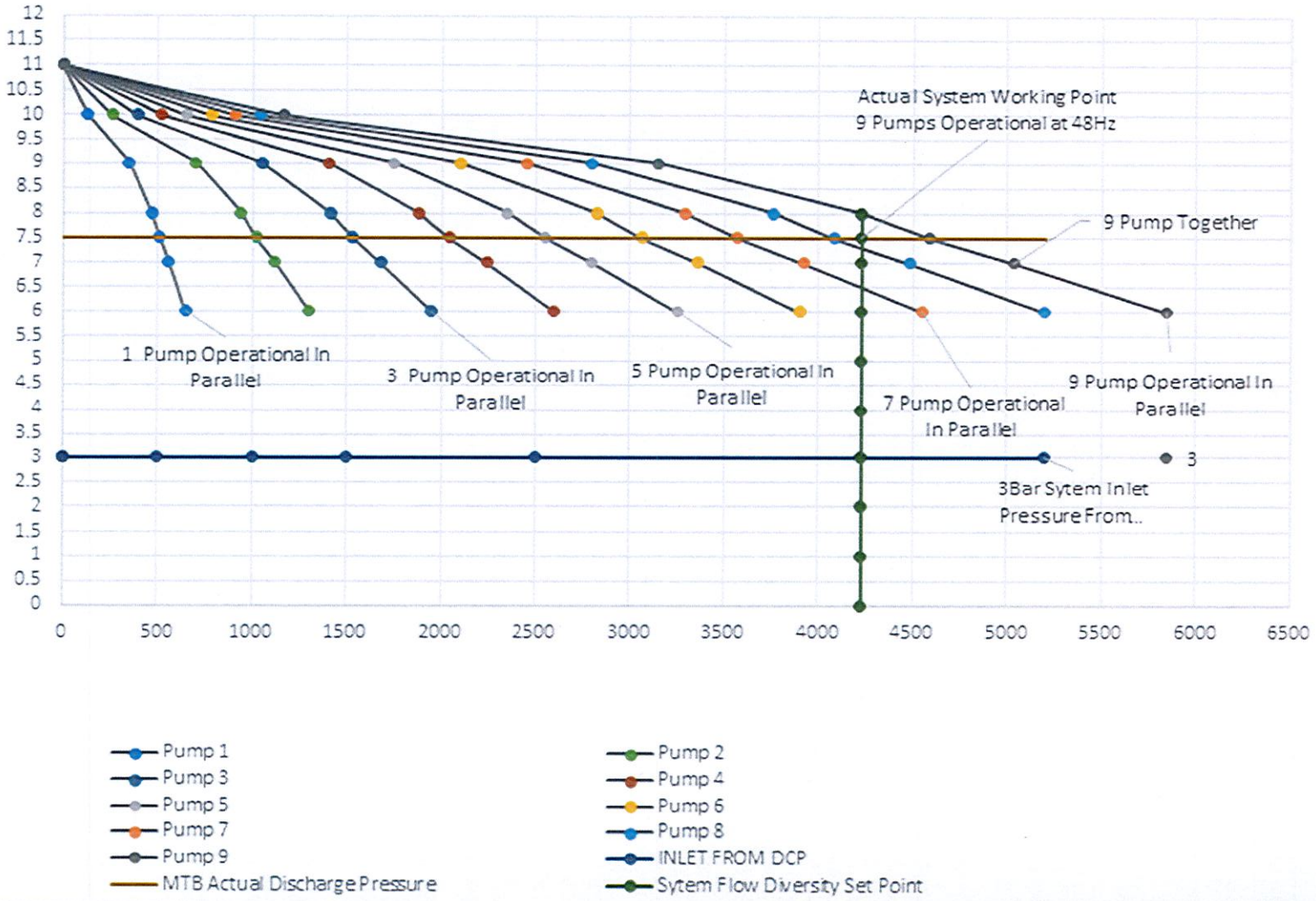
9 pumps running at 49.9 hz
Open head flow from 4.6bar is 487.97 l/s which is 104% of 470 l/s at D1



	Tested by: AJB	Witnessed by : PCEJV	Witnessed by : TCAJV	Witnessed by : Core Emirates	Approved by : AECOM
Name	J.DULAY/R. MIGUEL	CARLOS CLEMENTE	O. Hassan	P. Ribbens	
Sinature				18 APR 2019	
Date :	1-Apr-19	1-Apr-19	04.04.19	REVIEWED CORE EMIRATES COMMISSIONING	

Instrument Used:

MTB PROJECT CHW SYSTEM (50 Hz) COMPOSITE PUMP CURVE
&
ACTUAL SYTEM DIVERSITY 1 SET POINT CHART



مشروع المطار الجديد MIDFIELD TERMINAL PROJECT	COMMISSIONING RECORD SHEET	DS1	
	DRAWING SCHEDULE REFERENCES	3.15	

Project	Midfield Terminal Building, Abu Dhabi International Airport	**Sheet ref.**	**Package** Mechanical	**Building** CSP	
Client	Abu Dhabi Airport Company	**Equipment/Plant ref.** CHWP-CS-L0.0-001	**Sheet** 14	**Of** 31	**Rev**
Location	CSP/L0.0/0553 - Pump Room	**Secondary**	**System:**	**SECONDARY PUMP**	
Area serve	Chilled Water System (pump-1)		**Date measure:**	1-Apr-19	

DRAWING SCHEDULE REFERENCES

Drawing References					
No	**Schematic**	**Approved**	**Level**	**Layout**	**Approved**
1	MTC-M-04-TB-L_._-0.00-001-04	IFC	L0.1	401-EF-M-07-L_5.00-M-SD-006	Code 1
2			L2.0	401-EF-M-07-L_5.00-M-SD-005	Code 2

		Checked by : PCEJV	**Checked by : TCAJV**	**Checked by : Core Emirates**	**Approved by : AECOM**
Name	J.Dulay/R.Miguel	Carlos Clemente			
Signature				14 APR 2019	
Date :	1-Apr-19	1-Apr-19	04.04.19	REVIEWED CORE EMIRATES COMMISSIONING	
Instrument Used:					

DELTA WYE
CALIBRATION AND TESTING COMPANY LLC
POST BOX: 26704, DUBAI, UAE, PHONE: 04 277 6330, FAX: 04 277 6331

DW/TR/FORM/02 Rev 01	Certificate issue date: 23/05/2018

CALIBRATION CERTIFICATE

Certificate No.	:	CRT18106	**Instrument Name**	:	Manometer
Customer Name	:	AJB Hightech LTD	**Brand**	:	Poddymeter
Address	:	PO Box: 66576, Dubai, UAE	**Model**	:	Series 6000/WF
Cal Location	:	Building No: L15, Greece Cluster, International City, Dubai, UAE	**Serial Number**	:	W6091
Range	:	(0 – 199.9) kPa	**Cal date**	:	21-05-2018
Asset Number	:	-	**Due Date**	:	20-05-2019

Notes

The mentioned instrument is calibrated according to the procedures DW-TR-PRO-01(2) based on DKD-R-6-1, under perception of ISO IEC 17025:2005 abiding Quality Management System and calibrated against Delta Wye standards.

Working standards are periodically calibrated, recertified and traceable to International Standards NIST / NPL / DCL etc. (Master instrument's calibration certificates are available upon request). Delta Wye standards meet or exceed the requirement of ISO 9001:2008 and ISO IEC 17025:2005.

Master Instrument Details		
Instrument Name	:	Digital Test Gauge
Brand	:	Druck
Model	:	DPI 104
Serial No	:	4120404
Certificate No.	:	CU-600005346
Due date	:	03-03-2019

Atmospheric Conditions	
Temperature	20°C ± 2°C
Humidity	50% RH ± 15% RH

Our Comments

Results mentioned in this certificate are not exceeding manufacturer's specification.

Physical Condition: Instrument received in good condition.

Calibrated by: **Noushad K.T.**
QA/QC Manager

CERTIFIED

Checked by: **Justin Anto**
Technical Manager

Certificate No.	:	CRT18106	Work Order No.	:	WO/4386/18

DELTA WYE
CALIBRATION AND TESTING COMPANY LLC
POST BOX: 26704, DUBAI, UAE, PHONE: 04 277 6330, FAX: 04 277 6331

DW/TR/FORM/02 Rev 01	Certificate issue date: 23/05/2018

Test Results

Pressure – Positive Channel (Specification: ±0.2 kPa or ±0.5% [whichever is greater])					
Up			Down		
Applied Value	Measured Value	Error	Applied Value	Measured Value	Error
0.0 kPa	0.0 kPa	0.0 kPa	199.7 kPa	199.9 kPa	+0.2 kPa
40.0 kPa	40.1 kPa	+0.1 kPa	160.0 kPa	160.1 kPa	+0.1 kPa
80.0 kPa	80.1 kPa	+0.1 kPa	120.0 kPa	120.1 kPa	+0.1 kPa
120.0 kPa	120.1 kPa	+0.1 kPa	80.0 kPa	80.1 kPa	+0.1 kPa
160.0 kPa	160.1 kPa	+0.1 kPa	40.0 kPa	40.0 kPa	+0.1 kPa
199.7 kPa	199.9 kPa	+0.2 kPa	0.0 kPa	0.0 kPa	0.0 kPa

Pressure – Negative Channel (Specification: ±0.2 kPa or ±0.5% [whichever is greater])					
Up			Down		
Applied Value	Measured Value	Error	Applied Value	Measured Value	Error
0.0 kPa	0.0 kPa	0.0 kPa	-199.8 kPa	-199.9 kPa	-0.1 kPa
-40.0 kPa	-40.0 kPa	0.0 kPa	-160.0 kPa	-160.1 kPa	-0.1 kPa
-80.0 kPa	-80.0 kPa	0.0 kPa	-120.0 kPa	-120.0 kPa	0.0 kPa
-120.0 kPa	-120.0 kPa	0.0 kPa	-80.0 kPa	-80.0 kPa	0.0 kPa
-160.0 kPa	-160.1 kPa	-0.1 kPa	-40.0 kPa	-40.0 kPa	0.0 kPa
-199.8 kPa	-199.9 kPa	-0.1 kPa	0.0 kPa	0.0 kPa	0.0 kPa

———— End of Test Results ————

CERTIFIED

Certificate No.	:	CRT18106	Work Order No.	:	WO/4386/18

DELTA WYE
CALIBRATION AND TESTING COMPANY LLC
LB-285-CAL
POST BOX: 26704, DUBAI, UAE, PHONE: 04 277 6330, FAX: 04 277 6331

DW/TR/FORM/02 Rev 01	Certificate issue date: 17/12/2018

CALIBRATION CERTIFICATE

Certificate No.	:	CRT23108	**Instrument Name**	:	Clamp Multimeter
Customer Name	:	AJB Hightech LTD	**Brand**	:	Hioki
Address	:	PO Box: 66576, Dubai, UAE	**Model**	:	3280-10
Cal Location	:	Building No: L-08, Greece Cluster, International City, Dubai, UAE	**Serial Number**	:	140908237
Range	:	Refer test results	**Cal date**	:	18-12-2018
Asset Number	:	-	**Due Date**	:	17-12-2019

Notes

This instrument is calibrated according to our procedure DW-TR-PRO-01(12), based on EURAMET/cg-15/v.03 and uncertainty budgeting is done based on UKAS M3003 Edition 2 under perception of ISO IEC 17025:2005 abiding Quality Management System and calibrated against Delta Wye standards.

Working standards are periodically calibrated, recertified and traceable to International Standards NIST / NPL / DCL etc. (Master instrument's calibration certificates are available upon request). The results indicated in this certificate relate only to the item(s) calibrated.

Master Instrument Details		
Instrument Name	:	Multiproduct Calibrator
Brand	:	Transmille
Model	:	3041A
Serial No.	:	L1296B14
Cert No.	:	34269
Due date	:	10-09-2019

Our Comments

The results mentioned in this certificate are not exceeding manufacturer specification.

Physical Condition: Good.

Atmospheric Conditions	
Temperature	23°C ± 3°C
Humidity	50%RH ± 15% RH

Calibrated by: **Melvin Baby**
Calibration Engineer

Checked by: **Noushad K.T.**
QA/QC Manager

Certificate No.	:	CRT23108	Work Order No.	:	WO/5409/18

DELTA WYE
CALIBRATION AND TESTING COMPANY LLC
LB-285-CAL
POST BOX: 26704, DUBAI, UAE, PHONE: 04 277 6330, FAX: 04 277 6331

DW/TR/FORM/02 Rev 01	Certificate issue date: 17/12/2018

Test Results

DC Voltage(Specification: 1% + 3 Count)			
Range	Applied Value	Measured Value	Uncertainty
420 mV	40.0 mV	40.0 mV	58 µV
420 mV	360.0 mV	360.0 mV	61 µV
420 mV	-360.0 mV	-360.0 mV	61 µV
4.2 V	0.440 V	0.440 V	0.58 mV
4.2 V	3.600 V	3.600 V	0.60 mV
4.2 V	-3.600 V	-3.600 V	0.60 mV
42 V	4.40 V	4.40 V	5.8 mV
42 V	36.00 V	36.00 V	8.1 mV
42 V	-36.00 V	-36.01 V	7.8 mV
420 V	44.0 V	44.1 V	58 mV
420 V	360.0 V	360.0 V	60 mV
420 V	-360.0 V	-360.0 V	60 mV
600 V	440 V	440 V	0.58 mV
600 V	540 V	540 V	0.58 mV
600 V	-540 V	-540 V	0.58 mV

AC Voltage @ 40Hz (Specification: 1.8% +7 Count)			
Range	Applied Value	Measured Value	Uncertainty
4.2 V	0.400 V	0.399 V	5.0 mV
4.2 V	3.600 V	3.599 V	50 mV
42 V	4.40 V	4.40 V	50 mV
42 V	36.00 V	35.99 V	0.16 V
420 V	44.0 V	44.0 V	0.16 V
420 V	360.0 V	359.9 V	0.73 V
600 V	440 V	440 V	0.80 V
600 V	540 V	539 V	0.82 V

Continuity Checking function	OK

DELTA WYE
CALIBRATION AND TESTING COMPANY LLC
LB-285-CAL
POST BOX: 26704, DUBAI, UAE, PHONE: 04 277 6330, FAX: 04 277 6331

DW/TR/FORM/02 Rev 01	Certificate issue date: 17/12/2018

Resistance (Specification: 2% + 4 Count)			
Range	Applied Value	Measured Value	Uncertainty
420 Ω	100.2 Ω	100.2 Ω	59 mΩ
4.2 kΩ	1.000 kΩ	0.998 kΩ	0.58 Ω
42 kΩ	10.00 kΩ	9.99 kΩ	5.8 Ω
420 kΩ	100.0 kΩ	99.9 kΩ	58 Ω
4.2 MΩ	1.000 MΩ	1.000 MΩ	0.60 kΩ
42 MΩ	10.00 MΩ	9.99 MΩ	7.3 kΩ

The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor, k=2 providing a level of confidence of approximately 95%.

Non Accredited parameters

AC Current @40 Hz (Specification: 1.5% + 5 Count)			
Range	Applied Value	Measured Value	Error
42 A	4.00 A	3.98 A	-0.02 A
42 A	36.00 A	35.99 A	-0.01 A
420 A	44.0 A	43.9 A	-0.1 A
420 A	360.0 A	359.3 A	-0.7 A
1000 A	440 A	439 A	-1 A
1000 A	900 A	898 A	-2 A

———— End of Test Results ————

Certificate No.	:	CRT23108	Work Order No.	:	WO/5409/18

DELTA WYE
CALIBRATION AND TESTING COMPANY LLC
POST BOX: 26704, DUBAI, UAE, PHONE: 04 277 6330, FAX: 04 277 6331

DW/TR/FORM/02 Rev 01	Certificate issue date: 21/05/2018

CALIBRATION CERTIFICATE

Certificate No.	:	CRT18085	Instrument Name	:	Tachometer
Customer Name	:	AJB Hightech LTD	Brand	:	Lutron
Address	:	PO Box: 66576, Dubai, UAE	Model	:	DT-2236
Cal Location	:	Building No: L15, Greece Cluster, International City, Dubai, UAE	Serial No	:	I.278474
Range	:	(0.5 – 100000) RPM	Cal date	:	21-05-2018
Asset No.	:	-	Due Date	:	20-05-2019

Notes

The mentioned instrument is calibrated according to the procedures DW-TR-PRO-01(5), under perception of ISO IEC 17025:2005 abiding Quality Management System and calibrated against Delta Wye standards.

Working standards are periodically calibrated, recertified and traceable to International Standards NIST / NPL / DCL etc (Master instrument's calibration certificates are available upon request). The results indicated in this certificate relate only to the item(s) calibrated.

Master Instrument Details			
Instrument Name	:	Multiproduct Calibrator	Tachometer Calibration Adaptor
Brand	:	Transmille	Transmille
Model	:	3041A	EA003
Serial No.	:	L1296B14	111053A14
Cert No.	:	34269	34287
Due date	:	10-09-2019	11-09-2019

Atmospheric Conditions	
Temperature	20°C ± 2°C
Humidity	50% RH ± 15% RH

Our Comments

Results given in this certificate are not exceeding manufacturer's specification.
Physical Condition: Instrument received in good condition.

Calibrated by: **Noushad K.T.**
QA/QC Manager

Checked by: **Justin Anto**
Technical Manager

CERTIFIED

Certificate No.	:	CRT18085	Work Order No.	:	WO/4425/18

DELTA WYE
CALIBRATION AND TESTING COMPANY LLC
POST BOX: 26704, DUBAI, UAE, PHONE: 04 277 6330, FAX: 04 277 6331

DW/TR/FORM/02 Rev 01	Certificate issue date: 21/05/2018

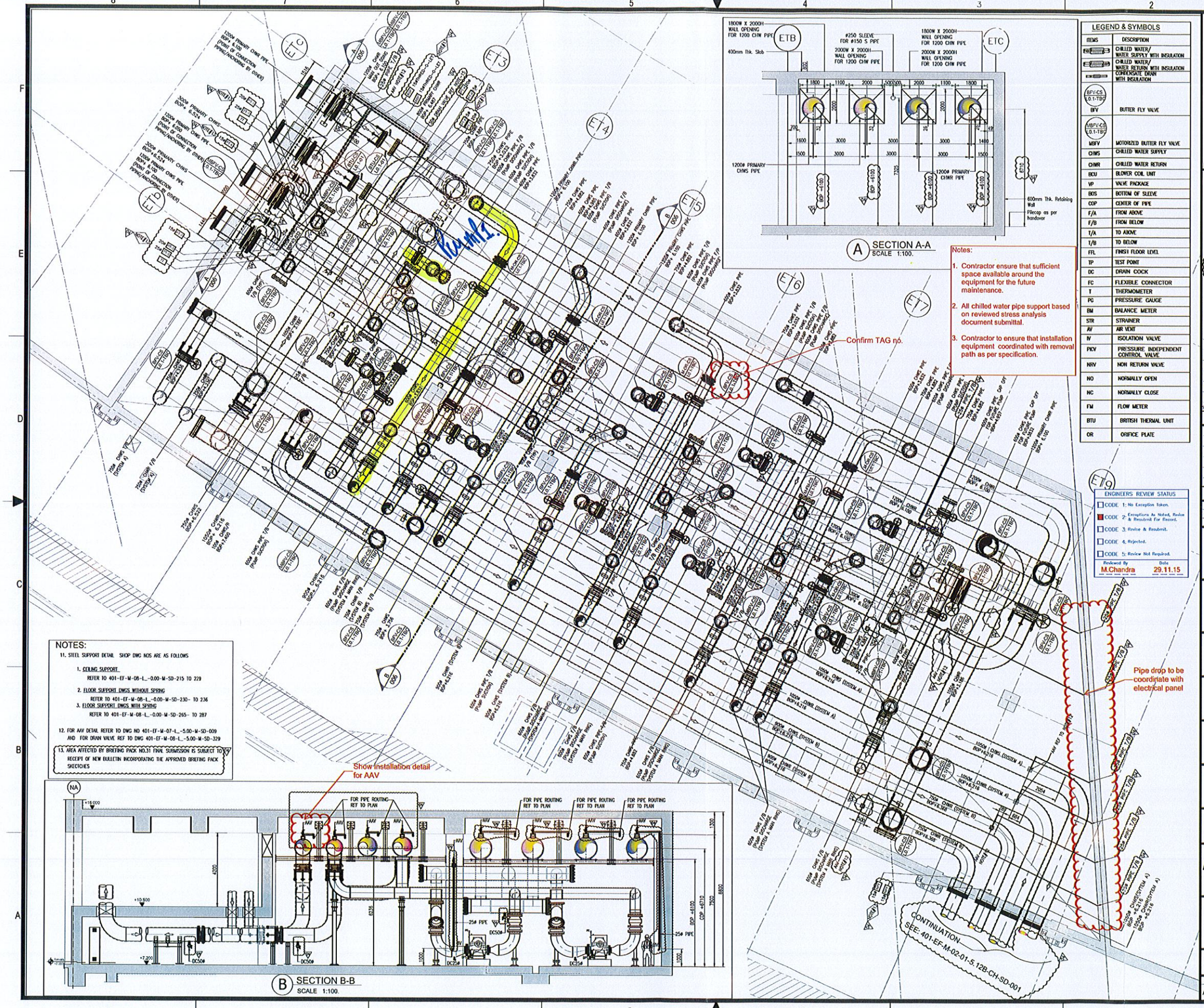
Test Results

RPM – Optical (Specification: ± (0.05% + 1 digit))		
Applied Value	Measured Value	Error
100.0	99.9	-0.1
900.0	900.0	0.0
1100	1100	0
60000	60000	0

———— End of Test Results ————

CERTIFIED
DELTA WYE CALIBRATION AND TESTING COMPANY L.L.C

Certificate No.	:	CRT18085	Work Order No.	:	WO/4425/18



Notes:

1. Contractor ensure that sufficient space available around the equipment for the future maintenance.
2. All chilled water pipe support based on reviewed stress analysis document submittal.
3. Contractor to ensure that installation equipment coordinated with removal path as per specification.

NOTES:

11. STEEL SUPPORT DETAIL SHOP DWG NOS ARE AS FOLLOWS
    1. CEILING SUPPORT
       REFER TO 401-EF-M-08-L_-0.00-M-SD-215 TO 229
    2. FLOOR SUPPORT DWGS WITHOUT SPRING
       REFER TO 401-EF-M-08-L_-0.00-M-SD-230~ TO 236
    3. FLOOR SUPPORT DWGS WITH SPRING
       REFER TO 401-EF-M-08-L_-0.00-M-SD-265~ TO 287
12. FOR AAV DETAIL REFER TO DWG NO 401-EF-M-07-L_-5.00-M-SD-009 AND FOR DRAIN VALVE REF TO DWG 401-EF-M-08-L_-5.00-M-SD-329
13. AREA AFFECTED BY BRIEFING PACK NO.31 FINAL SUBMISSION IS SUBJECT TO RECEIPT OF NEW BULLETIN INCORPORATING THE APPROVED BRIEFING PACK SKETCHES

LEGEND & SYMBOLS

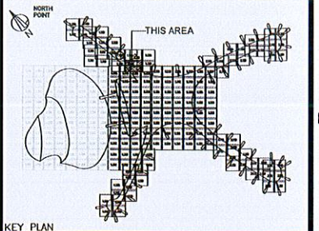
ITEMS	DESCRIPTION
	CHILLED WATER/ WATER SUPPLY WITH INSULATION
	CHILLED WATER/ WATER RETURN WITH INSULATION
	CONDENSATE DRAIN WITH INSULATION
BFV/CS (0.1-TBC)	BUTTER FLY VALVE
MBFV/CS (0.1-TBC)	MOTORIZED BUTTER FLY VALVE
CHWS	CHILLED WATER SUPPLY
CHWR	CHILLED WATER RETURN
BCU	BLOWER COIL UNIT
VP	VALVE PACKAGE
BOS	BOTTOM OF SLEEVE
COP	CENTER OF PIPE
F/A	FROM ABOVE
F/B	FROM BELOW
T/A	TO ABOVE
T/B	TO BELOW
FFL	FINISH FLOOR LEVEL
TP	TEST POINT
DC	DRAIN COCK
FC	FLEXIBLE CONNECTOR
T	THERMOMETER
PG	PRESSURE GAUGE
BM	BALANCE METER
STR	STRAINER
AV	AIR VENT
IV	ISOLATION VALVE
PICV	PRESSSURE INDEPENDENT CONTROL VALVE
NRV	NON RETURN VALVE
NO	NORMALLY OPEN
NC	NORMALLY CLOSE
FM	FLOW METER
BTU	BRITISH THERMAL UNIT
OR	ORIFICE PLATE

ENGINEERS REVIEW STATUS

- CODE 1: No Exception taken.
- CODE 2: Exception As Noted, Revise & Resubmit For Record.
- CODE 3: Revise & Resubmit.
- CODE 4: Rejected.
- CODE 5: Review Not Required.

Reviewed By: M.Chandra — Date: 29.11.15

KEY PLAN



NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
2. INSULATION OF PIPE WILL BE 32mm THICK FOR SUPPLY, 25mm THICK FOR RETURN AND 13mm THICK FOR CONDENSATE PIPING.
3. BOTTOM OF PIPE IS FROM FINISH FLOOR LEVEL (FFL)
5. THE INSULATIONS FOR CONDENSATE DRAIN PIPE IS 13 mm THICK.
6. WELD-O-LETS AND THREAD-O-LETS WILL BE USED AS PER EIT/0501/3552
7. CONDENSATE PUMPS WILL BE USED AS SHOWN IN THE LAYOUT
8. FOR STANDARD PIPE SUPPORT DETAILS REFER 401-EF-M-08-0-L00-M-SD-006
9. THE VERTICAL PIPE WILL BE WITH CONCENTRIC REDUCER.
10. FOR TYPICAL BCU VALVE PACKG INSTALLATION DETAIL REFER TO DRAWING NO. 401-EF-M-08-L_-5.00-M-SD-117

EXTRACTED FROM BIM MODEL
MTB_BuCP_00_MEC-CHW-PUMPROOM_B134_r07_EF_300_150519

BIM MODEL & SHOP DWG ARE BASED ON BULLETIN NO-134

S.NO.	DRAWING NO.	REV.	BK NO.	DRAWING TITLE
04	MTC-A-02-TB-LO-1-5-33-00-478	04	30	EXTERNAL BUILDING GENERAL ARRANGEMENT PLAN LEVEL LO.1 (ULTIMO)SECTOR 5.33
03	401-JP MEP-05-110-8.06-MEX SD-001	00	00	MEP EXTERNAL UTILITIES COMPOSITE PLAN SECTOR 5.06
02	MTC-M-05-TB-LO.1-5.33-001	04	30	MECHANICAL PLAN LO.1 (NORMAL LEVEL) SECTOR 5.33
01	MTC-S-02-TB-LO.1-5.33-01.001	03	18	STRUCTURAL STRUCTURE GENERAL ARRANGEMENT PLAN LEVEL LO.1 (ULTIMO)SECTOR 5.33

REFERENCE CONTRACT DRAWINGS

REV.	DESCRIPTION	DATE	DRWN.	CHKD.
04	REVISED AS SHOWN	10-11-2015	RJK	M/AK
03	REVISED AS PER CONSULTANTS COMMENT	26-05-2015	RJK	M/AK
02	REVISED AS PER BULLETIN-134	29-01-2015	RJK	M/AK
01	REVISED AS PER BULLETIN-98 REISSUED FOR APPROVAL	18-09-2014	SK	AL/ZSC
00	ISSUED FOR APPROVAL	10-07-2014	SK	AL/ZSC

REVISION DETAILS

CHECKED BY			REVIEWED BY		
STRUCT. ENG.	ARCHITECT	M.E.P.	F.E.M. / T.M.	PROJ. COORD.	PMC MNGR.

CONTRACTOR'S VERIFICATION STAMP

TCA JOINT VENTURE CERTIFY THAT THE SUBMITTAL HAS BEEN REVIEWED, CHECKED, COORDINATED AND APPROVED FOR COMPLIANCE WITH THE CONTRACT DOCUMENTS.

CONTRACTOR'S PROJECT MANAGER: A. HAYDAR (PRINT NAME) (DATE)

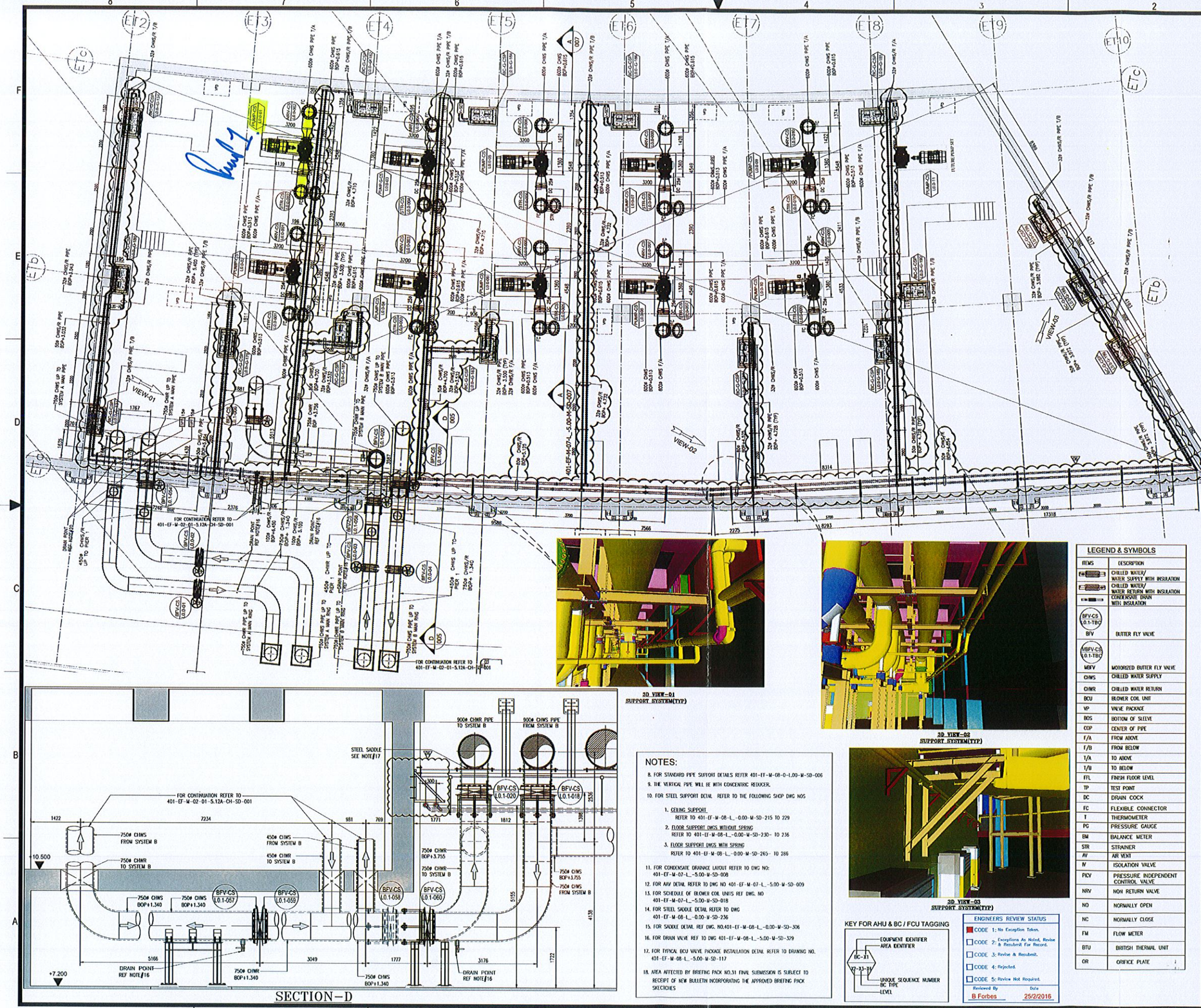
OWNER NAME: ADAC Planning & Development
CONSTRUCTION MANAGER: AECOM
CONSULTANT: KPF
SUB-CONSULTANT: ARUP
MAIN CONTRACTOR: Tepe Akten TAV Construction / arabtec
SUB-CONTRACTOR: POWER TRANSMISSION GULF / China State Construction Engineering (Middle East) LLC

PROJECT NAME
ABU DHABI INTERNATIONAL AIRPORT
MIDFIELD TERMINAL BUILDING

DRAWING TITLE
CHILLED WATER PIPE LAYOUT
UPPER LEVEL FOR ETS ROOM
L0.1 PART PLAN SECTOR 5.33C

DRAWING NUMBER	REV.
401-EF-M-07-L_-5.00-M-SD-006	04

WBS NO.	DATE	SCALE	DRAWN	CHECKED	SHT. NO.
AUH.06.10.0401	10-07-2014	1:100@A1	RJK	H/AK	1 OF 1



SECTION–D

3D VIEW–01
SUPPORT SYSTEM(TYP)

3D VIEW–02
SUPPORT SYSTEM(TYP)

3D VIEW–03
SUPPORT SYSTEM(TYP)

NOTES:

8. FOR STANDARD PIPE SUPPORT DETAILS REFER 401-EF-M-08-0-L.00-M-SD-006
9. THE VERTICAL PIPE WILL BE WITH CONCENTRIC REDUCER.
10. FOR STEEL SUPPORT DETAIL REFER TO THE FOLLOWING SHOP DWG NOS
    1. CEILING SUPPORT
       REFER TO 401-EF-M-08-L_-0.00-M-SD-215 TO 229
    2. FLOOR SUPPORT DWGS WITHOUT SPRING
       REFER TO 401-EF-M-08-L_-0.00-M-SD-230- TO 236
    3. FLOOR SUPPORT DWGS WITH SPRING
       REFER TO 401-EF-M-08-L_-0.00-M-SD-265- TO 286
11. FOR CONDENSATE DRAINAGE LAYOUT REFER TO DWG NO:
    401-EF-M-07-L_-5.00-M-SD-008
12. FOR AHV DETAIL REFER TO DWG NO 401-EF-M-07-L_-5.00-M-SD-009
13. FOR SCHEDULE OF BLOWER COIL UNITS REF DWG. NO
    401-EF-M-07-L_-5.00-M-SD-018
14. FOR STEEL SADDLE DETAIL REFER TO DWG
    401-EF-M-08-L_-0.00-M-SD-236
15. FOR SADDLE DETAIL REF DWG. NO.401-EF-M-08-L_-0.00-M-SD-306
16. FOR DRAIN VALVE REF TO DWG 401-EF-M-08-L_-5.00-M-SD-329
17. FOR TYPICAL BCU VALVE PACKAGE INSTALLATION DETAIL REFER TO DRAWING NO. 401-EF-M-08-L_-5.00-M-SD-117
18. AREA AFFECTED BY BRIEFING PACK NO.31 FINAL SUBMISSION IS SUBJECT TO RECEIPT OF NEW BULLETIN INCORPORATING THE APPROVED BRIEFING PACK SKETCHES

KEY FOR AHU & BC / FCU TAGGING

ENGINEERS REVIEW STATUS

- CODE 1: No Exception Taken.
- CODE 2: Exceptions As Noted, Revise & Resubmit For Record.
- CODE 3: Revise & Resubmit.
- CODE 4: Rejected.
- CODE 5: Review Not Required.

Reviewed By: B Forbes — Date: 25/2/2016

LEGEND & SYMBOLS

ITEMS	DESCRIPTION
	CHILLED WATER/ WATER SUPPLY WITH INSULATION
	CHILLED WATER/ WATER RETURN WITH INSULATION
	CONDENSATE DRAIN WITH INSULATION
BFV-CS L0.1-TBC / BFV	BUTTER FLY VALVE
MBFV-CS L0.1-TBC / MBFV	MOTORIZED BUTTER FLY VALVE
CHWS	CHILLED WATER SUPPLY
CHWR	CHILLED WATER RETURN
BCU	BLOWER COIL UNIT
VP	VALVE PACKAGE
BOS	BOTTOM OF SLEEVE
COP	CENTER OF PIPE
F/A	FROM ABOVE
F/B	FROM BELOW
T/A	TO ABOVE
T/B	TO BELOW
FFL	FINISH FLOOR LEVEL
TP	TEST POINT
DC	DRAIN COCK
FC	FLEXIBLE CONNECTOR
T	THERMOMETER
PG	PRESSURE GAUGE
BM	BALANCE METER
STR	STRAINER
AV	AIR VENT
IV	ISOLATION VALVE
PICV	PRESSURE INDEPENDENT CONTROL VALVE
NRV	NON RETURN VALVE
NO	NORMALLY OPEN
NC	NORMALLY CLOSE
FM	FLOW METER
BTU	BRITISH THERMAL UNIT
OR	ORIFICE PLATE

KEY PLAN

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
2. FOR PLUMBS LAYOUT PLEASE REFER TO 401-EF-M-02-00-5.33C-EP-SD-001
3. INSULATION OF PIPE WILL BE 32mm THICK FOR SUPPLY, 25mm THICK FOR RETURN AND 13mm THICK FOR CONDENSATE PIPING.
4. BOTTOM OF PIPE IS FROM FINISH FLOOR LEVEL (FFL)
5. PICV VALVE IS USED FOR ALL EQUIPMENT FCU/BCU/AHU.
6. WELD-O-LETS AND THREAD-O-LETS WILL BE USED AS PER REV/0501/3552
7. CONDENSATE PUMPS WILL BE USED AS SHOWN IN THE LAYOUT

EXTRACTED FROM BIM MODEL
MTB_BuCP_00_MEC-CHW-PUMPROOM_B134_r08_EF_300_150608

BIM MODEL & SHOP DWG ARE BASED ON BULLETIN NO-134

S.NO.	DRAWING NO.	REV.	BK NO.	DRAWING TITLE
05	401-JV-MEP-05-L1.0-8.06-MEX-SD-200	00	00	MEP EXTERNAL UTILITIES COMPOSITE PLAN SECTOR 8.06
04	MTC-S-02-TB-L0.0-5.33-01-001	04	25	TERMINAL BUILDING STRUCTURAL GENERAL ARRANGEMENT PLAN LEVEL L0.0 (ARRIVALS LEVEL) SECTOR 5.33
03	MTC-M-08-TB-L0.1-5.33-001	04	30	MECHANICAL PLAN L0.1 (MEZZANINE LEVEL) SECTOR 5.33
02	MTC-M-08-TB-L0.0-5.33-001	03	30	MECHANICAL PLAN L0.0 (ARRIVAL LEVEL) SECTOR 5.33
01	MTC-A-02-TB-L0-1-5.33-00-479	04	10	TERMINAL BUILDING GENERAL ARRANGEMENT PLAN LEVEL L0.0 SECTOR 5.33

REFERENCE CONTRACT DRAWINGS

REV.	DESCRIPTION	DATE	DRWN.	CHKD.
06	REVISED AS SHOWN	08-02-2016	RJK	HI/AK
05	REVISED AS SHOWN	17-11-2015	RJK	HI/AK
04	REVISED AS PER CONSULTANTS COMMENTS	13-07-2015	RJK	HI/AK
03	REVISED AS PER CONSULTANTS COMMENTS	15-06-2015	RJK	HI/AK
02	REVISED AS PER BULLETIN-134	25-03-2015	RJK	HI/AK
01	REVISED AS PER BULLETIN-98 REISSUED FOR APPROVAL	17-09-2014	RJK	AU/OSC
00	ISSUED FOR APPROVAL	10-07-2014	RJK	AU/OSC

REVISION DETAILS

CHECKED BY			REVIEWED BY		
STRUCT. ENG.	ARCHITECT	M.E.P.	P.E.M. / T.M.	PROJ. COORD.	ENG. MINOR

CONTRACTOR'S VERIFICATION STAMP

TCA JOINT VENTURE CERTIFY THAT THE SUBMITTAL HAS BEEN REVIEWED, CHECKED, COORDINATED AND APPROVED FOR COMPLIANCE WITH THE CONTRACT DOCUMENTS.

CONTRACTOR'S PROJECT MANAGER: A. HAYDAR (PRINT NAME) (DATE)

OWNER NAME: ADAC Planning & Development

CONSTRUCTION MANAGER: AECOM

CONSULTANT: KPF

SUB-CONSULTANT: ARUP

MAIN CONTRACTOR: Tepa Aktien — TAV Construction — arabtec

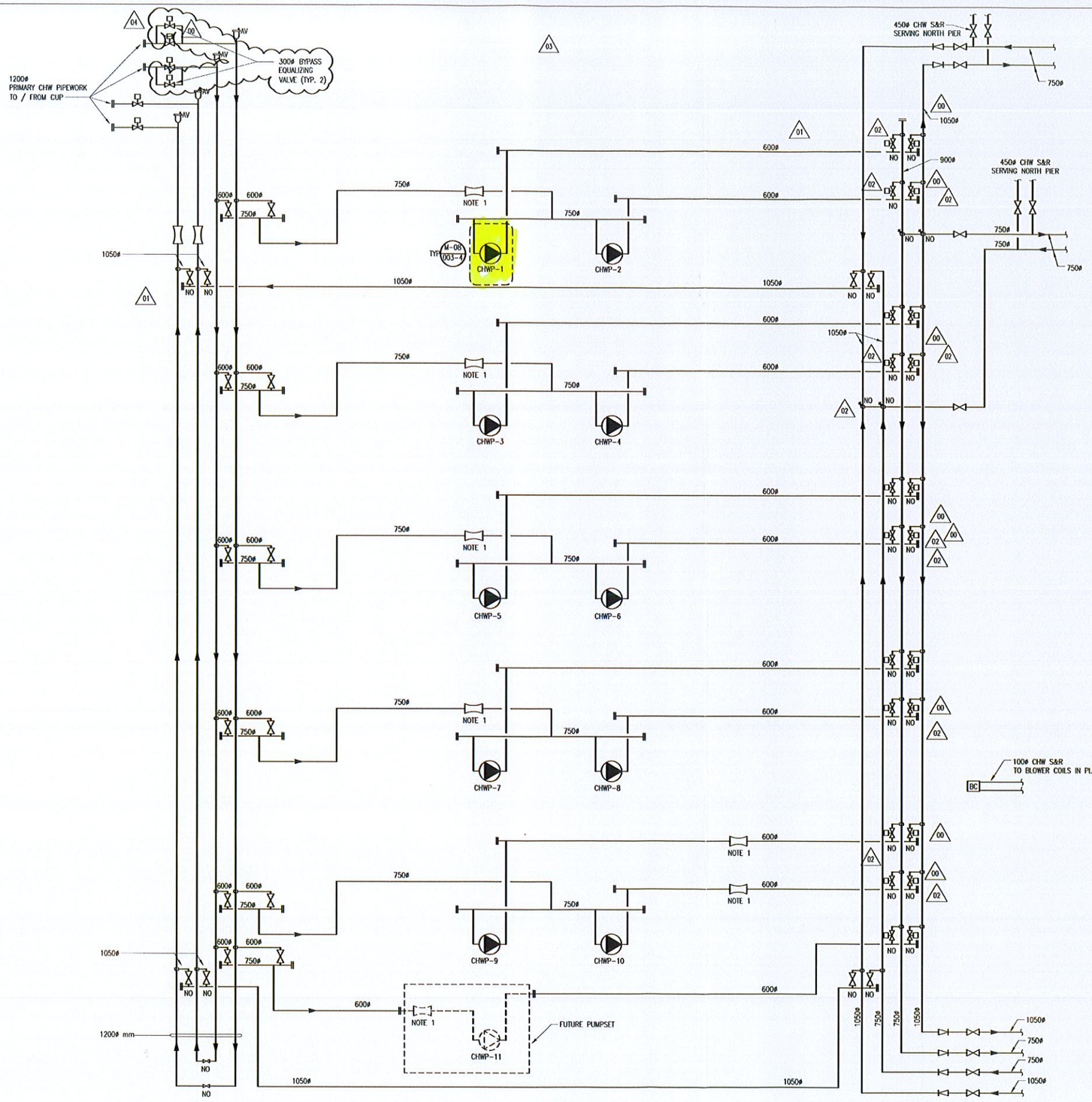
SUB-CONTRACTOR: POWER TRANSMISSION GULF — CHINA STATE CONSTRUCTION ENGG. CORP. LTD.

PROJECT NAME
ABU DHABI INTERNATIONAL AIRPORT
MIDFIELD TERMINAL BUILDING

DRAWING TITLE
CHILLED WATER PIPE LAYOUT
CHW PUMPROOM
L0.0 PART PLAN SECTOR 5.33C

DRAWING NUMBER	REV.
401-EF-M-07-L_-5.00-M-SD-005	06

WBS NO.	DATE	SCALE	DRAWN	CHECKED	SHT. NO.:
AUH.06.10.0401	10-07-2014	1:100@A1	RJK	HI/AK	1 OF 1



CHILLED WATER FLOW DIAGRAM 1
NTS

NOTES:

REFER TO DETAILS FOR VALVES AND FITTINGS AT EQUIPMENT INCLUDING: PUMPS; AIR SEPARATORS; INCLUDE DEVICES AND APPURTENANCES FOR A COMPLETE SYSTEM INSTALLATION.

REFER TO CONTROLS DRAWINGS FOR OTHER CONTROL DEVICES AND APPURTENANCES.

NOTES:
1) FLOW METER ONLY, TEMPERATURE PROBES NOT REQUIRED

REV.	DATE	DESCRIPTION
04	30.11.14	BULLETIN 134
03	20.07.14	BULLETIN 98
02	25.06.14	BULLETIN 90
01	26.10.12	BULLETIN 03
00	15.07.12	ISSUED FOR CONSTRUCTION

SUBMITTAL REFERENCE
ISSUED FOR CONSTRUCTION

CLIENT/OWNER
ADAC شركة أبوظبي للمطارات ABU DHABI AIRPORTS COMPANY
ABU DHABI AIRPORTS COMPANY

DESIGN CONSULTANT
KPF
Kohn Pedersen Fox Associates (International) PA
Architectural Planning Consultants
1 Lambeth Palace Road London SE1 7EU England
T +44 (0) 20 7401 7500 F +44 (0) 20 7401 7501
www.kpf.com

SUB-CONSULTANT
ARUP
Ove Arup & Partners International Ltd
4 Pierhead Street Capital Waterside
Cardiff CF10 4QP
Tel +44 (0)29 20473727 Fax +44 (0)29 20472277
www.arup.com

PROJECT
ABU DHABI INTERNATIONAL AIRPORT
MIDFIELD TERMINAL COMPLEX

DRAWING TITLE
MECHANICAL SINGLE LINE DIAGRAM
CHILLED WATER
SHEET 1

SHEET NUMBER
MTC M 04 TB — L - 0.00 001 04
PRJ DIS DIV BLD PHS LVL SEC SEQ REV

DRAWN BY	DESIGNED BY	CHECKED BY	APPROVED BY	DATE FIRST ISSUED
LH	MH	GC	KL	30.06.2010

SCALE NOT TO SCALE
PROJECT No.
WBS AUH.06.10.0401

KSB SERVICE L.L.C.

Site Report

Final Alignment Report

27th July 2017

Project Details			
Pump Type:	**OMEGA 300-435 BS BGF**	**Customer:**	**KSB MIDDLE EAST**
Serial Number:	**Mentioned in the report**	**Site:**	**PCEJV**
Manufacturer:	**KSB**	**Location:**	**ABU DHABI**
Tag No:	**Mentioned in the report**	**KSB Ref:**	**11753**
Date of site visit:	**23rd- 24th July 2017**	**Activity:**	**Final alignment**

Overview:

Client has requested KSB Service to visit site and carry out final alignment on pumps 1, 3 and 10. The alignment and freedom of rotation on pump 6 was checked and was pump was found to be acceptable. It was not possible to achieve a set of acceptable alignment values for pumps #3 & #10, as the anchor bolts were restricting the movement of the motor. The anchor bolts needs to be machined to reduce the diameter and provide more adjustment. The bolts were machine in KSB Workshop.

Pump Details				Driver Details			
Q:	**470.00 L/s**	**n:**	**1497 rpm**	**Type**	**Siemens**	**N:**	**1490rpm**
H:	**50.00 m**	**T:**		**P:**	**300 kw**	**I:**	**530 A**
		Year:	**2014**	**U:**	**400 V**	**cos:**	**0.86**

PUMP DETAIL			
PUMP TYPE	**SERLIAL NUMBER**	**MOTOR NUMBER**	**PUMP TAG NUMBER**
OMEGA 300-435 B	316390	N-E81427501020001	SCHWP-001
OMEGA 300-435 B	316670	N-E81427501025005	SCHWP-003
OMEGA 300-435 B	316389	N-E81427501010001	SCHWP-006
OMEGA 300-435 B	316667	N-E81427501025004	SCHWP-010

كيه. أس. بي. سيرفيس ذ.م.م.
ص.ب: ٣٢٢ - ت: ٥٥٢٣٤٥٤-٠٢
أبوظبي - أ.ع.م.
ABU DHABI-U.A.E.
P.O. Box: 322, Tel:02-5523454
KSB Service L.L.C.

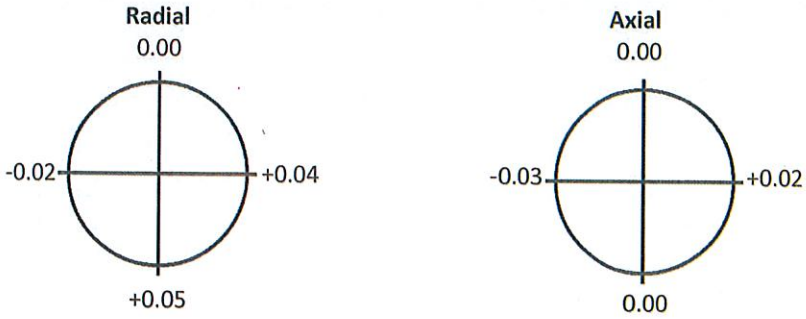
Site Report

KSB

Details

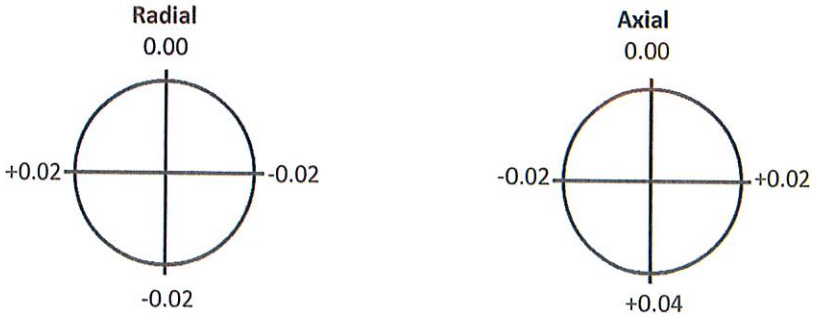
Pump Type:	OMEGA 300-435 BS BGF	Customer:	KSB MIDDLE EAST
Serial Number:	Mentioned in the report	Site:	PCEJV
Manufacturer:	KSB	KSB Ref:	11753

Coupling Alignment — Serial Number 316390



Remarks:
Dial gauge was mounted on the pump hub
All dimensions are in mm
All values within the acceptable limit
The pump and motor alignment was carried out with the pipe work attached. No free alignment check was carried out as water was present in the pipeline

Coupling Alignment — Serial Number 316670



Remarks:
Dial gauge was mounted on the pump hub
All dimensions are in mm
All values within the acceptable limit
The pump and motor alignment was carried out with the pipe work attached. No free alignment check was carried out as water was present in the pipeline

Recorded by:	Jozef	Position	Sr-Technician	Date	24th July 2017
Compiled by:	Uriah	Position	QA,QC	Date	27th July 2017

Document Submittal : DS/0401/4394- 01

مشروع المطار الجديد
MIDFIELD TERMINAL PROJECT

TAV Construction ATC arabtec

AECOM

PROGRAM NAME
MTC - Midfield Terminal Complex

CONTRACT NO
AUH/06.10.0401 - MTB - General Contractor

SUBMITTAL TYPE
Document Submittal

DS/0401/4394 - 01

Commissioning Procedure for Hydronic Pumps Secondary Chilled Water System

From:	TAV - CCC - ATC Joint Venture	Submission Date:	4 June 2015
To:	AECOM Middle East Limited	Action Required:	Approval
Raised By:	Amam Ansari	Date on Document:	2 June 2015

Submittal No:	DS/0401/4394	Rev:	01
Submittal Type:	Document Submittal		
Submittal Title:	Commissioning Procedure for Hydronic Pumps Secondary Chilled Water System		
Discipline:	Mechanical	Specification:	
Location:		Floor:	
Room Number:		Sector:	
Document No:	COM-0401-PCE-PR-0013	Document Rev:	01
Document Remark:			

Design Consultant (KPF) Comments: N/A

Engineer (AECOM) Comments:

Comments:

Comment 1:
This commissioning procedure to be read in correlation with related specification section 230593, approved material submittal, ITP
and other contractor documents.
Test reports should include items mentioned in specification section 230593 , 3.16
Testing and commissioning to be in accordance with manufacturer's recommendation.
Calibration certificate of testing equipment should be readily available at site all the time.
All related installations WIR's to be inspected and approved prior to start testing and commissioning
BMS interface testing and commissioning procedure to be submitted separately.

Reviewed By: Sayed Eltabbakh

Signature

Review Date: 23 June 2015

RECEIVED
23 JUN 2015
TCA JV
DCG

Electronic Signature

ADAC Comments:

Comments:

Page 15 - Section 9:
Is this being completed by the manufacturer/manufacturer's representative?
What procedure is being followed for pump alignment?
Produce separate Commissioning Method Statement for Pump Alignment
Page 18 - Section 14:
Inspection requests to be issued via the Engineer/CMA
Page 49 - Water Balance Report Record Sheet
This is not required

ELECTRONICALLY DISTRIBUTED

Document Submittal : DS/0401/4394- 01

We propose Status 2 approval only subject to issue and approval of a separate Commissioning Method Statement to cover the Pump Alignment Activity detailed in Section 9 (Pre-Requisites) (Page 15 - Comment 1)

Reviewed By: Barry Leach

Signature: ×

Review Date: 21 June 2015

Electronic Signature

Status Code: 2 - Exceptions As Noted

MIDFIELD TERMINAL AUTHORITY TO PROCEED CERTIFICATE	ATP CEM-001	CORE EMIRATES COMMISSIONING — مطارات أبوظبي ABU DHABI AIRPORTS
SYSTEM: CHILLED WATER PIPING	CMS REF: CON-0401-PCE-PR-0016	
AREA: BRANCH -18/2/3/4 & B19 AS PER ATTACHED DRAWING / SCHEMATICS	ZONE: CP L0-0, L0.1 & L1.0	
TYPE OF TEST: CLEANING AND FLUSHING OF CHW PIPING	SEQUENTIAL TEST NO:	
ATP - 12011	This form records the ATP process for the system/element defined	

		Organisation	Name	Signature	Date
ATP 1	Identifies that all of the pre-requisites are met and the system/items are ready to test	Contractor	CARLOS CLEMENTE		25/6/17
		TCA-JV	A. Rahman		4/6/17
		Core- Emirates	VIDURA BADDEGAMA	V.K. Baddegama	4/06/17

		Organisation	Name	Signature	Date
ATP 2	Identifies that pre-commissioning is complete, approval to proceed with power on request and do start up checks	Contractor	CARLOS CLEMENTE		06/07/17
		TCA-JV	Milton. P		6/7/17
		Core- Emirates	Paul Rubens		10.07.17

		Organisation	Name	Signature	Date
ATP 3	Energisation/ start up checks complete, approval to proceed with commissioning activities	Contractor	CARLOS CLEMENTE		18/07/17
		TCA-JV	Milton. P		18/7/17
		Core- Emirates	P. Rubens		18/07/17

		Organisation	Name	Signature	Date
ATP 4	Identifies that commissioning activities are complete, approval to proceed with CIR	Contractor	CARLOS CLEMENTE		18/07/17
		TCA-JV	Milton P		18/7/17
		Core- Emirates	P. Rubens		18/07/17

Supporting Documentation Required

- WIR Reference Schedule
- Pre commissioning Check Sheets
- Approved Test Sheets
- Calibration certificates
- Marked- up Drawings etc
- Other (please specify)

Time of ATP 3 - ONLY MAIN PIPE WORK FLUSHED.

All Equipment CHW Cooling Coils ARE IN BYPASS CONDITION 18/7/17.

RECEIVED 31 JAN 2016 AECOM Middle East Limited

W

ADAC | AECOM | Tepe Akfen TAV Construction | CCC | arabtec

TAV-CCC-ARABTEC JOINT VENTURE
MIDFIELD TERMINAL BUILDING, ABU DHABI INTERNATIONAL AIRPORT PROJECT

WORK INSPECTION REQUEST (WIR)

PROJECT DOC. NO. : FM-CQCP-1093-001-05-ATTACHMENT 05 | REV NO : 03 | PAGE NO: 1 of 1

Contract No. AUH.06.10.0401

WIR No 4271-01

DETAILS OF SCHEDULED INSPECTION BY CONTRACTOR'S CONSTRUCTION — Section A

TO : ENGINEER: AECOM
DISCIPLINE /SUB: MECHANICAL/HVAC
SPEC./DRWG. REF: 401-EF-M-07-L -5.00-M-SD-005 Rev-04 (Code 2)
INSPECTION SCHEDULED TIME: 30 Jan 16 9:20 Am
LOCATION : CP-2 Sector 5.33C
LEVEL: L0.0
INITIAL INSPECTION ☐ FINAL INSPECTION ■
ITP NO: 1093-307
FORM NO: 1093-307
ACTIVITY-5
SYSTEM: HVAC EQUIPMENT
SUB-SYSTEM: CHW Pump
ROOM NO: 553 Pump Station

WIR NO. MECH-04271-01
REV. NO. 1
DATE: 28 Jan 16

GRID LINES	
X-AXIS	Y-AXIS
ETB-ETC	ET3-ET4

MTB-BuCP-00-MEC-CHW-CHW-5.33C-001

DESCRIPTION

Mockup Inspection for Installation of Chilled Water Pump
(PUMP-CS-L0.0-01)

SITE ENGINEER: JOHN MADDEN
SIGNATURE:

CONFIRMATION OF CONTRACTOR'S QC INSPECTION — Section B

CONFIRMATION OF CO-ORDINATION & COMPLIANCE WITH SPECIFICATION /SHOP DRAWING (S)

TICK BOX: YES | NO — NOTE : IF NO, ANY DEVIATION FROM SPECIFICATION(S),APPROVED DRAWING(S) TO BE RECORDED BELOW.

NON-CONFORMITY AND/OR REFERENCE OF ATTACHED NON-CONFORMANCE REPORT (NCR):

DATE :

CONTRACTOR QC : LORD JEFFERSON CEBALLOS / FERDINAND BATAC
DATE : 28 Jan 16 TIME: 1:00 PM

AECOM Comments complied, pls see attached compliance statement.

ENGINEER'S COMMENTS — Section C

DISCIPLINE ☐ CIVIL ☐ ARCH. ☐ STRUCTURAL STEEL ☐ MEP/ELECT. ☐ MEP/MECH. ☐ MEP/SPEC.SYST.

Refer to attached comment sheet

30/01/16

RECEIVED 02 FEB 2016 TCA JV QC-MEP

PCE JV RECEIVED 03 FEB 2016 QA/QC DEPARTMENT

STATUS CODE: 1 ☐ 2 ☑ 3 ☐ 4 ☐ 5 ☐ 6 ☐

1-No Exception Taken
2-Exceptions as Noted; Revise & Resubmit for Record
3-Revise and Resubmit
4-Rejected
5-Review Not Required
6-Issued for Construction

THE ENGINEER'S COMMENTS SHALL NOT RELIEVE THE CONTRACTOR OF ANY OF HIS RESPONSIBILITIES UNDER THE CONTRACT.

ENGINEER NAME :
DATE : 30/01/16
SIGNATURE:
COPY TO EMPLOYER'S REPRESENTATIVE :

مشروع المطار الجديد MIDFIELD TERMINAL PROJECT	ABU DHABI INTERNATIONAL AIRPORT PROJECT (MTB) MIDFIELD TERMINAL BUILDING	مطارات أبوظبي ABU DHABI AIRPORTS

Work Inspection Comments

WIR NO.	4271-01 Rev01
Date Inspected	30/01/16
Code Given	**Code 2**
Inspection Title	Mock-up inspection for installation of chilled water pump

Sr.	Comments
1	Gauges are not installed, to be submitted through separate WIR.
2	Pump and motor to be covered and protected
3	All comments on attached approved drawing by consultant to be addressed.
4	It is contractor's responsibility to coordinate with all other trades.
5	Inspections done based on the attached approved drawings; if any changes to the drawings at a later stage the contractor shall resubmit the WIR for CMA approval.
6	Subject to testing and commissioning
7	See attached photos

30/01/16