



**CONTRACT No GTC 626/2014A**

**CONSTRUCTION OF MEGA RESERVOIR PRPSs  
(PACKAGE A - UMM BIRKA)**

**CONTRACT DOCUMENTS  
(VOLUME 10 OF 19)**

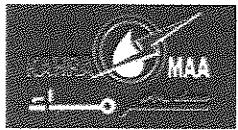


**CONSOLIDATED CONTRACTORS GROUP S.A.L. (OFFSHORE) (CCC) &  
TEYSEER CONTRACTING COMPANY W.L.L.  
JOINT VENTURE**

## TABLE OF CONTENTS

VOLUME	SECTION	ITEM	
VOLUME 1	1	Contract Agreement	
	2	Letter of Award	
	3	Letter of Confirmation	
	4	Secrecy Declaration	
	5	Performance Bond	
	6	Commercial Registration and Power of Attorney	
	7	Summary of Contract	
	8	General Conditions of Contracts	
VOLUME 2/6	9	Appendix A: Scope of Work and Specifications	
VOLUME 7	10	Appendix B: Schedule of Prices	
		1. Form of Tender	
		2. Preamble	
		3. Bills of Quantities	
		• Contract BOQ (After Currency Adjustment)	
	11	Appendix C: Insurance	
		1. Preamble	
		2. All Risk Insurance	
		3. Workmen's Compensation Insurance	
	12	Appendix D Administration Instructions	
	VOLUME 8	13	Appendix E Contractor Resources
			Annexure 1: Contractor's Personnel
Annexure 2: Facilities, Plant & Equipment owned by Contractor			
Annexure 3: Facilities, Plant & Equipment proposed by Contractor			
Annexure 4: Subcontractors			
Annexure 5: Suppliers			
Annexure 6: Contractor's Company Organization Chart			
Annexure 7: Contractor's Project Organization Chart			
Annexure 8: QA/QC Procedure			
			Annexure 9: Utilization of National Products & National Origin
VOLUME 9	13	Annexure 10: Contractor's General Information	
		Annexure 11: List of Customers and Projects	
		Annexure 12: List of Current Commitment	
			Annexure 13: Other Annexures
VOLUME10	14	Appendix F Drawings	
	15	Appendix G Material Equipment Supplied by KAHRAMAA	
	16	Appendix H Contract Execution Plan	
		1. Programme of Work	
		2. Method Statement	
VOLUME 11/15	17	Appendix I Materials Supplied by the Contractor	
VOLUME 16/17	18	Appendix J General Safety Requirements	
	19	Appendix K Departure from or Qualification to the Specification	
VOLUME 18	20	Acknowledgement of Receipt of Tender Documents	
		Circulars No. 1 to 21	
			Commercial Offer BOQ
VOLUME 19	21	Pre Award Correspondence	
			Minutes of Pre-Award Meeting
			Other Appendices

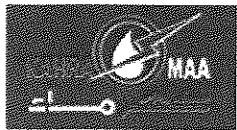
## **SECTION 14: APPENDIX F DRAWINGS**



**Qatar General Electricity & Water Corporation**  
Tender NO. GTC 626/2014  
**Construction of Mega Reservoir PRPSs**  
**(Packages A, B, C, D & E)**

## **APPENDIX F**

## **DRAWINGS**



## **Table of Contents**

1. TENDER DRAWINGS:	3
2. CONSTRUCTION DRAWINGS	3
3. CONTRACTOR'S DETAILED DRAWINGS	3
4. CONTRACTORS CONSTRUCTION DRAWINGS:	3
5. RECORD DRAWINGS	4



**1. TENDER DRAWINGS:**

Tender drawings of the proposed works are listed in the drawing set issued with the Tender. Such drawings shall be deemed to have been issued for the guidance of Tenderers and shall be referred to for the interpretation of the Contract.

**2. CONSTRUCTION DRAWINGS**

Construction issue drawings will be submitted to the Contractor for the purpose of preparation of shop drawings and construction upon commencement of the Works. Kahramaa may issue additional or revised and amended Drawings during the execution of the Works. All superseded drawings shall be clearly marked "superseded".

**3. CONTRACTOR'S DETAILED DRAWINGS**

- a) The Contractor shall prepare and submit detailed drawings for all items of Plant for the approval of Kahramaa. Any Plant manufactured or procured before gaining approval from Kahramaa may be subject to modification at the Contractor's sole cost. All Drawings submitted by the Contractor will be at his cost. Each submission will consist of three hard copies and one soft copy. The Contractor shall continue to re-submit drawings and other information until the Engineer's approval is obtained
- b) Should the Contractor require further drawings that may be necessary for the execution of the Works he shall, when instructed by the Engineer, prepare and submit such detailed drawings with adequate notes in writing for the approval of the Engineer.
- c) The Engineer may within a reasonable period approve, amend or change these drawings or may require the Contractor to produce amended drawings. No drawing shall be valid unless it is approved and signed by the Engineer but any approval of drawings shall not relieve the Contractor of any of his obligations under the Contract.
- d) All drawings shall be produced on computer using AutoCAD or similar approved software. These shall be submitted to Kahramaa at the end of the Works and to the Engineer as the Works proceed.

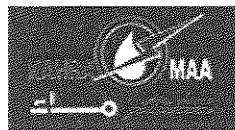
**4. CONTRACTORS CONSTRUCTION DRAWINGS:**

Contractor shall include in his rates the submittal of construction drawings required for the construction of the work. The Contractor shall furnish the Engineer free of charge three copies for his approval. The Contractor shall continue to re-submit drawings and other information until the Engineer's approval is obtained



## 5. RECORD DRAWINGS

- a) The Contractor shall keep accurate record drawings of the arrangement, longitudinal sections, positions and details of all works constructed by him. These drawings to be in the forms approved by the Engineer and are to QGEWC G.I.S specification (Version 1.3) and shall be prepared as the work proceeds on computer using AutoCAD or similar approved software by an approved Sub- Contractor.
- b) As soon as each drawing has been completed, three prints shall be submitted to the Engineer for approval.
- c) If the drawings or documents are not approved, one copy shall be returned to the Contractor with Engineer's remarks and required alteration required. Upon final approval one copy of the drawing or document shall be stamped 'Approved' by the Engineer and returned to the Contractor forthwith.
- d) After such approval is given, the Contractor shall supply to the Engineer the original drawing on disk together with four paper prints of each drawing.
- e) All record drawings shall be completed prior to issue of the Taking Over Certificate for the works.
- f) The Contractor shall accurately locate by co-ordinates to the Qatar National Grid, the centre of all buried services identified during the Works.
- g) The execution of the survey works and recording of the data shall comply with the following:
  - i) The location coordinates shall be accurate to within  $\pm 0.1m$ .
  - ii) The survey shall be based on Qatar National Local Grid survey control points.
  - iii) The coordinates shall be determined by radial (polar) observations using theodolite and electronic distance measuring (EDM) equipment. The coordinates shall be checked by independent methods and error shown to be within the acceptable limits.
  - iv) If required, additional controls points may be established on a temporary basis (e.g. nail in tarmac). Observations for additional control points shall consist of at least two rounds of angles (on two faces) with a different zero setting for each round. Distances where applicable shall be determined by trigonometric methods rather than by levelling and at least two rounds of vertical angles (on two faces) shall be observed
  - v) The positions of additional control points shall be determined by reference to not less than three Qatar National Local Grid survey



control points and shall be proved to have standard errors no greater than plus or minus 0.08 metres.

- vi) On completion of work, all observations, computations, sketches and any other documentation used in determining the coordinates shall be submitted to the Engineer. A daily log giving the number of additional control stations and chamber covers be maintained and submitted. A comprehensive report on the work carried out including methods used, problems encountered, solutions used and a full summary of the results shall be submitted.
- vii) All survey work shall be carried out by suitably qualified and experienced surveyors approved by the Ministry of Municipal Affairs and Agriculture, Survey Section. WND to be notified of the survey company name before commencing work. The approved company shall coordinate with WND project Engineer as works proceed and to get the approval on survey work completed on a weekly basis.



## **SUPPLEMENTARY NOTE TO SUPPORT ELECTRICAL DRAWINGS**

### **1. General**

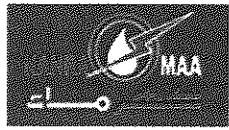
- Partial differential protection to be provided at 11kV level.

### **2. Fire Detection and Alarm**

- NAC appliances sound pressure level (SPL) shall be selected as per NFPA 72 by considering the ambient noise levels, so that the personal are alerted by the high SPL NAC appliances during emergency.
- Smoke detectors shall be provided to all clean agent gas suppression cylinder rooms, and to all spaces in accordance with NFPA 72.
- Smoke detectors shall be omitted from any spaces containing clean agent gas suppression, and an appropriate number of fire alarm interface units shall be provided to this system.
- Interfaces indicated for systems such as clean agent fire suppression / fire pumps etc. are indicative only. The contractor shall confirm the exact number required for each system.
- The number of devices may vary as per site condition.
- Master FACP along with Graphical annunciator MIMIC Panel shall be located in the Main Guard House as this is the Fire Command Centre and additional Graphical annunciator MIMIC Panel shall be located in the Main Pumping Station.
- Auto Dialer Panel shall be provided near the Master/Main FACP & it shall be connected to Civil Defence through dedicated telecom line.
- Fire detectors shall be provided to all fuel storage to monitor for fire, and the signals shall be transmitted to the Fire Alarm system.
- Note, that as per KM technical specifications, all Fire alarm system cables shall be of Fire rated type (including substation buildings) and not MICC. Also 1.5Sq.mm cables shall be used for Initiating circuits and 2.5Sq.mm cable for NAC circuits.

### **3. Earthing and Lightning Protection**

- Amended drawings are provided for PRPS2. These are representative for all sites.
- The earth pits for all earthing systems (clean earthing / switchgear earthing / lightning protection etc.) shall be interlinked with lead-sheathed copper cabling.



**Qatar General Electricity & Water Corporation**  
**Tender NO. GTC 626/2014**  
**Construction of Mega Reservoir PRPSs**  
**(Packages A, B, C, D & E)**

- All lightning protection down conductors shall be connected directly to earth pits, with a test link provided.
- All earth rods shall be driven to a depth of 2m below Summer water table.
- Lead sheathed tape will be provided for air terminals on the roof.
- Lead sheathed tape will be used for the part of down conductor from the roof termination to test points. Please note that these conductors are a part of lightning protection mesh which shall protect building from possible lightning side strikes.
- Down conductor from test link to earth grid shall be lead sheathed 400mm<sup>2</sup> Cu conductor.
- Interconnection between earth pits is 240mm<sup>2</sup> lead sheathed Cu conductor. Connection between indoor earth bars and earth grid can be Y/G PVC/Cu conductor.

DRAWING NO.	TITLE	REV. NO.
M0174-RT-DH-GE-0005	ARCHITECTURAL DRAWING LIST SHEET 01 OF 05	A/C
M0174-RT-DH-GE-0006	ARCHITECTURAL DRAWING LIST SHEET 02 OF 05	C/C
M0174-RT-DH-GE-0007	ARCHITECTURAL DRAWING LIST SHEET 03 OF 05	C/C
M0174-RT-DH-GE-0008	ARCHITECTURAL DRAWING LIST SHEET 04 OF 05	C/C
M0174-RT-DH-GE-0009	ARCHITECTURAL DRAWING LIST SHEET 05 OF 05	C/C
M0174-RT-DH-AR-0050	GENERAL NOTES	△(B)
	LEGEND AND GENERAL NOTES	
	SHADED CAR PARKING	
M0174-RT-DH-AR-0070	SHADED CAR PARKING PLANS	A
M0174-RT-DH-AR-0071	SHADED CAR PARKING PLAN	A
M0174-RT-DH-AR-0072	SHADED CAR PARKING PLAN	A
M0174-RT-DH-AR-0073	SHADED CAR PARKING ELEVATIONS AND DETAILS	A
	MAIN GUARD HOUSE BUILDING	
M0174-RT-DH-AR-1000	MAIN GUARD HOUSE BUILDING GROUND FLOOR PLAN	A
M0174-RT-DH-AR-1001	MAIN GUARD HOUSE BUILDING ROOF PLAN	A
M0174-RT-DH-AR-1010	MAIN GUARD HOUSE BUILDING ELEVATIONS	A
M0174-RT-DH-AR-1020	MAIN GUARD HOUSE BUILDING SECTION	A
M0174-RT-DH-AR-1040	MAIN GUARD HOUSE BUILDING EXTERNAL WALL DETAILS	A
M0174-RT-DH-AR-1050	MAIN GUARD HOUSE BUILDING TYPICAL ROOF DETAILS	A
M0174-RT-DH-AR-1051	MAIN GUARD HOUSE BUILDING TYPICAL ROOF DETAILS	A
M0174-RT-DH-AR-1052	MAIN GUARD HOUSE BUILDING TOILET PLANS AND SECTIONS	A
M0174-RT-DH-AR-1053	MAIN GUARD HOUSE BUILDING KITCHEN PLANS	A
M0174-RT-DH-AR-1054	MAIN GUARD HOUSE BUILDING KITCHEN SECTIONS	A
M0174-RT-DH-AR-1062	MAIN GUARD HOUSE BUILDING KITCHEN TYPICAL CEILING DETAILS	A
M0174-RT-DH-AR-1070	MAIN GUARD HOUSE BUILDING TYPICAL WALL DETAILS	A
M0174-RT-DH-AR-1080	MAIN GUARD HOUSE BUILDING GROUND FLOOR REFLECTED CEILING PLAN	A
M0174-RT-DH-AR-1090	MAIN GUARD HOUSE BUILDING GROUND FLOOR WALLS SETTING-OUT PLAN	A
M0174-RT-DH-AR-1120	MAIN GUARD HOUSE BUILDING TYPICAL CEILING DETAILS	A
M0174-RT-DH-AR-1330	MAIN GUARD HOUSE BUILDING TYPICAL FLOOR DETAILS	A
M0174-RT-DH-AR-1340	MAIN GUARD HOUSE BUILDING TYPICAL WALL DETAILS	A
M0174-RT-DH-AR-1350	MAIN GUARD HOUSE BUILDING DOOR ELEVATIONS	A
M0174-RT-DH-AR-1351	MAIN GUARD HOUSE BUILDING WINDOW ELEVATIONS	A
M0174-RT-DH-AR-1370	MAIN GUARD HOUSE BUILDING DOOR AND WINDOW TYPICAL DETAILS	B
M0174-RT-DH-AR-1390	MAIN GUARD HOUSE BUILDING DOOR AND WINDOW SCHEDULES	A
M0174-RT-DH-AR-1400	MAIN GUARD HOUSE BUILDING GROUND FLOOR FIRE STRATEGY PLAN	A
M0174-RT-DH-AR-1601	MAIN GUARD HOUSE BUILDING GROUND FLOOR SINGAGE PLAN AND STANDARD DETAILS	A
M0174-RT-DH-AR-1620	MAIN GUARD HOUSE BUILDING LADDER DETAILS	A
M0174-RT-DH-AR-1640	MAIN GUARD HOUSE BUILDING RECEPTION DESIGNE DETAILS	A
M0174-RT-DH-AR-1650	MAIN GUARD HOUSE BUILDING SCHEDULE OF FINISHES	A
	MAIN PUMP STATION	
M0174-RT-DH-AR-1500	MAIN PUMP STATION BUILDING BASEMENT FLOOR PLAN	A
M0174-RT-DH-AR-1501	MAIN PUMP STATION BUILDING BASEMENT MEZZANINE FLOOR PLAN	B
M0174-RT-DH-AR-1502	MAIN PUMP STATION BUILDING GROUND FLOOR PLAN	B
M0174-RT-DH-AR-1503	MAIN PUMP STATION BUILDING LOWER ROOF PLAN	A
M0174-RT-DH-AR-1504	MAIN PUMP STATION BUILDING UPPER ROOF PLAN	A
M0174-RT-DH-AR-1505	MAIN PUMP STATION BUILDING GALLERY BASEMENT FLOOR PLAN	A
M0174-RT-DH-AR-1506	MAIN PUMP STATION BUILDING GALLERY ROOF PLAN	A
M0174-RT-DH-AR-1507	MAIN PUMP STATION BUILDING ELEVATIONS	A
M0174-RT-DH-AR-1520	MAIN PUMP STATION BUILDING ELEVATIONS	B
M0174-RT-DH-AR-1521	MAIN PUMP STATION BUILDING SECTIONS	A
M0174-RT-DH-AR-1522	MAIN PUMP STATION BUILDING SECTION	A
M0174-RT-DH-AR-1523	MAIN PUMP STATION BUILDING CABLE GALLERY SECTIONS	A
M0174-RT-DH-AR-1525	MAIN PUMP STATION BUILDING BASEMENT FLOOR PARTIAL PLAN 1	B
M0174-RT-DH-AR-1526	MAIN PUMP STATION BUILDING BASEMENT FLOOR PARTIAL PLAN 2	B
M0174-RT-DH-AR-1527	MAIN PUMP STATION BUILDING BASEMENT MEZZANINE FLOOR PARTIAL PLAN 3	B
M0174-RT-DH-AR-1528	MAIN PUMP STATION BUILDING BASEMENT FLOOR PARTIAL PLAN 4	B
M0174-RT-DH-AR-1529	MAIN PUMP STATION BUILDING BASEMENT FLOOR PARTIAL PLAN 5	B
M0174-RT-DH-AR-1530	MAIN PUMP STATION BUILDING BASEMENT FLOOR PARTIAL PLAN 6	B
M0174-RT-DH-AR-1531	MAIN PUMP STATION BUILDING BASEMENT MEZZANINE FLOOR PARTIAL PLAN 1	B
M0174-RT-DH-AR-1532	MAIN PUMP STATION BUILDING BASEMENT MEZZANINE FLOOR PARTIAL PLAN 2	B

DRAWING NO.	REV. NO.
M0174-RJ-DH-AR-1333	MAIN PUMP STATION BUILDING BASEMENT MEZZANINE FLOOR PARTIAL PLAN 3
M0171-RJ-DH-AR-1534	MAIN PUMP STATION BUILDING BASEMENT MEZZANINE FLOOR PARTIAL PLAN 4
M0171-RJ-DH-AR-1535	MAIN PUMP STATION BUILDING BASEMENT MEZZANINE FLOOR PARTIAL PLAN 5
M0171-RJ-DH-AR-1536	MAIN PUMP STATION BUILDING BASEMENT MEZZANINE FLOOR PARTIAL PLAN 6
M0171-RJ-DH-AR-1537	MAIN PUMP STATION BUILDING GROUND FLOOR PARTIAL PLAN 1
M0171-RJ-DH-AR-1539	MAIN PUMP STATION BUILDING GROUND FLOOR PARTIAL PLAN 2
M0171-RJ-DH-AR-1540	MAIN PUMP STATION BUILDING GROUND FLOOR PARTIAL PLAN 3
M0171-RJ-DH-AR-1541	MAIN PUMP STATION BUILDING GROUND FLOOR PARTIAL PLAN 4
M0171-RJ-DH-AR-1542	MAIN PUMP STATION BUILDING GROUND FLOOR PARTIAL PLAN 5
M0171-RJ-DH-AR-1548	MAIN PUMP STATION BUILDING GROUND FLOOR PARTIAL PLAN 6
M0171-RJ-DH-AR-1543	MAIN PUMP STATION BUILDING LOWER ROOF PARTIAL PLAN 1
M0171-RJ-DH-AR-1544	MAIN PUMP STATION BUILDING LOWER ROOF PARTIAL PLAN 2
M0171-RJ-DH-AR-1545	MAIN PUMP STATION BUILDING LOWER ROOF PARTIAL PLAN 3
M0171-RJ-DH-AR-1546	MAIN PUMP STATION BUILDING LOWER ROOF PARTIAL PLAN 4
M0171-RJ-DH-AR-1547	MAIN PUMP STATION BUILDING LOWER ROOF PARTIAL PLAN 5
M0171-RJ-DH-AR-1549	MAIN PUMP STATION BUILDING LOWER ROOF PARTIAL PLAN 6
M0171-RJ-DH-AR-1550	MAIN PUMP STATION BUILDING UPPPER ROOF PARTIAL PLAN 1
M0171-RJ-DH-AR-1551	MAIN PUMP STATION BUILDING UPPPER ROOF PARTIAL PLAN 2
M0171-RJ-DH-AR-1552	MAIN PUMP STATION BUILDING UPPPER ROOF PARTIAL PLAN 3
M0171-RJ-DH-AR-1553	MAIN PUMP STATION BUILDING UPPPER ROOF PARTIAL PLAN 4
M0171-RJ-DH-AR-1554	MAIN PUMP STATION BUILDING UPPPER ROOF PARTIAL PLAN 5
M0171-RJ-DH-AR-1555	MAIN PUMP STATION BUILDING UPPPER ROOF PARTIAL PLAN 6
M0171-RJ-DH-AR-1645	MAIN PUMP STATION BUILDING PARTIAL SECTION 1 AND 2 OF SECTION A
M0171-RJ-DH-AR-1646	MAIN PUMP STATION BUILDING PARTIAL SECTION 1 OF SECTION B
M0171-RJ-DH-AR-1647	MAIN PUMP STATION BUILDING PARTIAL SECTION 2 OF SECTION B
M0171-RJ-DH-AR-1648	MAIN PUMP STATION BUILDING PARTIAL SECTION 3 OF SECTION B
M0174-RJ-DH-AR-1659	MAIN PUMP STATION BUILDING PARTIAL SECTION 1 AND 2 OF SECTION C
M0174-RJ-DH-AR-1660	MAIN PUMP STATION BUILDING PARTIAL SECTION 1 OF SECTION D
M0174-RJ-DH-AR-1661	MAIN PUMP STATION BUILDING PARTIAL SECTION 2 OF SECTION D
M0174-RJ-DH-AR-1662	MAIN PUMP STATION BUILDING PARTIAL SECTION 3 OF SECTION D
M0174-RJ-DH-AR-1653	MAIN PUMP STATION BUILDING PARTIAL SECTION 1 AND 2 OF SECTION E
M0174-RJ-DH-AR-1654	MAIN PUMP STATION BUILDING PARTIAL SECTION 1 AND 2 OF SECTION F
M0174-RJ-DH-AR-1655	MAIN PUMP STATION BUILDING PARTIAL SECTION 1 AND 2 OF SECTION G
M0174-RJ-DH-AR-1660	MAIN PUMP STATION BUILDING EXTERNAL WALL DETAILS
M0174-RJ-DH-AR-1661	MAIN PUMP STATION BUILDING EXTERNAL WALL DETAILS
M0174-RJ-DH-AR-1670	MAIN PUMP STATION BUILDING ROOF DETAILS
M0174-RJ-DH-AR-1671	MAIN PUMP STATION BUILDING ROOF DETAILS
M0174-RJ-DH-AR-1672	MAIN PUMP STATION BUILDING STAR 3 PLAN AND SECTION
M0174-RJ-DH-AR-1673	MAIN PUMP STATION BUILDING STAR 4 PLAN AND SECTION
M0174-RJ-DH-AR-1674	MAIN PUMP STATION BUILDING STAR 5 PLAN AND SECTION
M0174-RJ-DH-AR-1675	MAIN PUMP STATION BUILDING STAR 6 PLAN AND SECTION
M0174-RJ-DH-AR-1706	MAIN PUMP STATION BUILDING STAR 7 PLAN AND SECTION
M0174-RJ-DH-AR-1707	MAIN PUMP STATION BUILDING STAR 8 PLAN AND SECTION
M0174-RJ-DH-AR-1708	MAIN PUMP STATION BUILDING STAIRS PLANS AND SECTIONS
M0174-RJ-DH-AR-1709	MAIN PUMP STATION BUILDING STAIRS PLANS AND SECTIONS
M0174-RJ-DH-AR-1710	MAIN PUMP STATION BUILDING STAIRS PLANS AND SECTIONS
M0174-RJ-DH-AR-1711	MAIN PUMP STATION BUILDING STAIRS PLANS AND SECTIONS
M0174-RJ-DH-AR-1712	MAIN PUMP STATION BUILDING RAMP PLAN AND SECTIONS
M0174-RJ-DH-AR-1714	MAIN PUMP STATION BUILDING STAR TYPICAL DETAILS
M0174-RJ-DH-AR-1708	MAIN PUMP STATION BUILDING FEMALE CHANGING ROOM AND ABILUTION PLANS
M0174-RJ-DH-AR-1750	MAIN PUMP STATION BUILDING MALE CHANGING ROOM AND ABILUTION SECTIONS
M0174-RJ-DH-AR-1751	MAIN PUMP STATION BUILDING FEMALE CHANGING ROOM AND HANDICAPPED TOILET SECTIONS
M0174-RJ-DH-AR-1752	MAIN PUMP STATION BUILDING MALE CHANGING ROOM AND HANDICAPPED TOILET SECTIONS
M0174-RJ-DH-AR-1753	MAIN PUMP STATION BUILDING TANITORS ROOM PLAN AND SECTIONS
M0174-RJ-DH-AR-1754	MAIN PUMP STATION BUILDING BASEMENT FLOOR REFCRTED FLOOR PLAN
M0174-RJ-DH-AR-1755	MAIN PUMP STATION BUILDING FEMALE CHANGING ROOM AND HANDICAPPED TOILET PLANS
M0174-RJ-DH-AR-1756	MAIN PUMP STATION BUILDING MALE CHANGING ROOM AND HANDICAPPED TOILET SECTIONS
M0174-RJ-DH-AR-1757	MAIN PUMP STATION BUILDING TANITORS ROOM AND SECTIONS
M0174-RJ-DH-AR-1800	MAIN PUMP STATION BUILDING BASEMENT FLOOR REFCRTED FLOOR PLAN

PRINTED BY JESUS GARCIA - AÑO 1951 (727/2136) - 5-21044 CAD. 61 E. CALLE 100, ZONA 10, GUATEMALA. MECANOGRAFIAS, ABALVOCACAS, ARQUITECTURA, LIBROS, MANOS, JEF. CNA, BANCO CENTRAL

DRAWING NO.	TITLE	REV. NO.
MQ174-R1-DH-AR-1801	MAIN PUMP STATION BUILDING BASEMENT MEZZANINE FLOOR REFLECTED CEILING PLAN	A
MQ174-R1-DH-AR-1802	MAIN PUMP STATION BUILDING GROUND FLOOR REFLECTED CEILING PLAN	A
MQ174-R1-DH-AR-1803	MAIN PUMP STATION BUILDING LOWER ROOF REFLECTED CEILING PLAN	A
MQ174-R1-DH-AR-1804	MAIN PUMP STATION BUILDING CABLE GALLERY BASEMENT REFLECTED CEILING PLAN	A
MQ174-R1-DH-AR-1822	MAIN PUMP STATION BUILDING TYPICAL CEILING DETAILS	A
MQ174-R1-DH-AR-1830	MAIN PUMP STATION BUILDING TYPICAL FLOOR DETAILS	B
MQ174-R1-DH-AR-1831	MAIN PUMP STATION BUILDING TYPICAL FLOOR DETAILS	A
MQ174-R1-DH-AR-1840	MAIN PUMP STATION BUILDING TYPICAL WALL DETAILS	A
MQ174-R1-DH-AR-1841	MAIN PUMP STATION BUILDING TYPICAL WALL DETAILS	A
MQ174-R1-DH-AR-1850	MAIN PUMP STATION BUILDING DOOR ELEVATIONS	A
MQ174-R1-DH-AR-1851	MAIN PUMP STATION BUILDING DOOR ELEVATIONS	A
MQ174-R1-DH-AR-1852	MAIN PUMP STATION BUILDING DOOR ELEVATIONS	A
MQ174-R1-DH-AR-1853	MAIN PUMP STATION BUILDING DOOR ELEVATIONS	A
MQ174-R1-DH-AR-1854	MAIN PUMP STATION BUILDING DOOR ELEVATIONS	A
MQ174-R1-DH-AR-1868	MAIN PUMP STATION BUILDING WINDOW ELEVATIONS AND SCHEDULES	A
MQ174-R1-DH-AR-1861	MAIN PUMP STATION BUILDING WINDOW ELEVATIONS, SCHEDULES AND DETAILS	A
MQ174-R1-DH-AR-1862	MAIN PUMP STATION BUILDING WINDOW ELEVATIONS	A
MQ174-R1-DH-AR-1863	MAIN PUMP STATION BUILDING WINDOW ELEVATIONS	A
MQ174-R1-DH-AR-1864	MAIN PUMP STATION BUILDING WINDOW ELEVATIONS AND SCHEDULES	A
MQ174-R1-DH-AR-1870	MAIN PUMP STATION BUILDING DOOR TYPICAL DETAILS	A
MQ174-R1-DH-AR-1871	MAIN PUMP STATION BUILDING DOOR TYPICAL DETAILS	A
MQ174-R1-DH-AR-1872	MAIN PUMP STATION BUILDING DOOR TYPICAL DETAILS	A
MQ174-R1-DH-AR-1873	MAIN PUMP STATION BUILDING DOOR TYPICAL DETAILS	A
MQ174-R1-DH-AR-1874	MAIN PUMP STATION BUILDING DOOR TYPICAL DETAILS	A
MQ174-R1-DH-AR-1890	MAIN PUMP STATION BUILDING DOOR SCHEDULE	B
MQ174-R1-DH-AR-1891	MAIN PUMP STATION BUILDING DOOR SCHEDULE	B
MQ174-R1-DH-AR-1900	MAIN PUMP STATION BUILDING BASEMENT FLOOR FIRE STRATEGY PLAN	A
MQ174-R1-DH-AR-1901	MAIN PUMP STATION BUILDING BASEMENT MEZZANINE FLOOR FIRE STRATEGY PLAN	A
MQ174-R1-DH-AR-1902	MAIN PUMP STATION BUILDING GROUND FLOOR FIRE STRATEGY PLAN	A
MQ174-R1-DH-AR-1903	MAIN PUMP STATION BUILDING LOWER ROOF FIRE STRATEGY PLAN	A
MQ174-R1-DH-AR-1904	MAIN PUMP STATION BUILDING BASEMENT FLOOR SIGNAGE PLAN	A
MQ174-R1-DH-AR-1905	MAIN PUMP STATION BUILDING BASEMENT MEZZANINE FLOOR SIGNAGE PLAN	A
MQ174-R1-DH-AR-1906	MAIN PUMP STATION BUILDING GROUND FLOOR SIGNAGE PLAN	A
MQ174-R1-DH-AR-1907	MAIN PUMP STATION BUILDING LOWER ROOF FLOOR SIGNAGE PLAN	A
MQ174-R1-DH-AR-1908	MAIN PUMP STATION BUILDING SIGNAGE STANDARD DETAILS	A
MQ174-R1-DH-AR-1909	MAIN PUMP STATION BUILDING SIGNAGE SCHEDULE SHEET 1 OF 2	A
MQ174-R1-DH-AR-1910	MAIN PUMP STATION BUILDING SIGNAGE SCHEDULE SHEET 2 OF 2	A
MQ174-R1-DH-AR-1930	MAIN PUMP STATION BUILDING METAL LADDER 3 & 4 TYPICAL DETAILS	A
MQ174-R1-DH-AR-1931	MAIN PUMP STATION BUILDING METAL LADDER 5 & 6 TYPICAL DETAILS	A
MQ174-R1-DH-AR-1932	MAIN PUMP STATION BUILDING METAL LADDER DETAILS	A
MQ174-R1-DH-AR-1933	MAIN PUMP STATION BUILDING BALUSTRADE DETAILS	A
MQ174-R1-DH-AR-1950	MAIN PUMP STATION BUILDING SCHEDULE OF FINISHES SHEET 1 OF 4	A
MQ174-R1-DH-AR-1951	MAIN PUMP STATION BUILDING SCHEDULE OF FINISHES SHEET 2 OF 4	A
MQ174-R1-DH-AR-1952	MAIN PUMP STATION BUILDING SCHEDULE OF FINISHES SHEET 3 OF 4	A
MQ174-R1-DH-AR-1953	MAIN PUMP STATION BUILDING SCHEDULE OF FINISHES SHEET 4 OF 4	A
RESERVOIR		
MQ174-R1-DH-AR-2010	RESERVOIR TYPICAL DETAILS	B
MQ174-R1-DH-AR-2011	RESERVOIR TYPICAL DETAILS	B
MQ174-R1-DH-AR-2015	RESERVOIR DETAILS OF CLADDING	A
MQ174-R1-DH-AR-2020	RESERVOIR 1 ELEVATIONS	A
MQ174-R1-DH-AR-2021	RESERVOIR 2 ELEVATIONS	A
MQ174-R1-DH-AR-2022	RESERVOIR 3 ELEVATIONS	A
MQ174-R1-DH-AR-2023	RESERVOIR 4 ELEVATIONS	A
MQ174-R1-DH-AR-2024	RESERVOIR 5 ELEVATIONS	A
MQ174-R1-DH-AR-2025	RESERVOIR 6 ELEVATIONS	A
MQ174-R1-DH-AR-2026	RESERVOIR 7 ELEVATIONS	A
AIR COMPRESSOR BUILDING		
MQ174-R1-DH-AR-2500	AIR COMPRESSOR BUILDING GROUND FLOOR PLAN	B
MQ174-R1-DH-AR-2501	AIR COMPRESSOR BUILDING ROOF PLAN	A
MQ174-R1-DH-AR-2505	AIR COMPRESSOR BUILDING ELEVATIONS	A
MQ174-R1-DH-AR-2510	AIR COMPRESSOR BUILDING SECTIONS	B
MQ174-R1-DH-AR-2515	AIR COMPRESSOR BUILDING EXTERNAL WALL DETAILS	A

DRAWING NO.	TITLE	REV. N
MQ174-R1-DH-AR-2520	AIR COMPRESSOR BUILDING TYPICAL ROOF DETAILS	A
MQ174-R1-DH-AR-2525	AIR COMPRESSOR BUILDING STAIR AND RAMP PLAN AND SECTION	B
MQ174-R1-DH-AR-2526	AIR COMPRESSOR STAIR AND RAMP TYPICAL DETAILS	A
MQ174-R1-DH-AR-2530	AIR COMPRESSOR BUILDING GROUND FLOOR REFLECTED CEILING PLAN	A
MQ174-R1-DH-AR-2533	AIR COMPRESSOR BUILDING GROUND FLOOR AND INTERNAL WALLS SETTING-OUT PLAN	A
MQ174-R1-DH-AR-2540	AIR COMPRESSOR BUILDING TYPICAL WALL AND FLOOR DETAILS	B
MQ174-R1-DH-AR-2645	AIR COMPRESSOR BUILDING DOORS AND WINDOW ELEVATION	A
MQ174-R1-DH-AR-2546	AIR COMPRESSOR BUILDING DOORS AND WINDOW TYPICAL DETAILS AND SCHEDULES	B
MQ174-R1-DH-AR-2560	AIR COMPRESSOR BUILDING GROUND FLOOR FIRE STRATEGY PLAN	A
MQ174-R1-DH-AR-2561	AIR COMPRESSOR BUILDING GROUND FLOOR SIGNAGE PLAN	A
MQ174-R1-DH-AR-2562	AIR COMPRESSOR BUILDING SIGNAGE STANDARD DETAILS	A
MQ174-R1-DH-AR-2565	AIR COMPRESSOR BUILDING METAL LADDER 1 DETAILS	A
MQ174-R1-DH-AR-2566	AIR COMPRESSOR BUILDING METAL LADDER 2 DETAILS	A
MQ174-R1-DH-AR-2570	AIR COMPRESSOR BUILDING SCHEDULE OF FINISHES	B
	MV AND GENERATOR BUILDING	B
MQ174-R1-DH-AR-3000	MV AND GENERATOR BUILDING BASEMENT FLOOR PLAN	B
MQ174-R1-DH-AR-3001	MV AND GENERATOR BUILDING GROUND FLOOR PLAN	B
MQ174-R1-DH-AR-3002	MV AND GENERATOR BUILDING ROOF PLAN	B
MQ174-R1-DH-AR-3010	MV AND GENERATOR BUILDING ELEVATIONS	B
MQ174-R1-DH-AR-3011	MV AND GENERATOR BUILDING ELEVATIONS	B
MQ174-R1-DH-AR-3020	MV AND GENERATOR BUILDING SECTIONS	B
MQ174-R1-DH-AR-3021	MV AND GENERATOR BUILDING SECTIONS	B
MQ174-R1-DH-AR-3100	MV AND GENERATOR BUILDING EXTERNAL WALL DETAILS	B
MQ174-R1-DH-AR-3150	MV AND GENERATOR BUILDING TYPICAL ROOF DETAILS	B
MQ174-R1-DH-AR-3200	MV AND GENERATOR BUILDING STAIRS AND RAMPS PLAN AND SECTION	B
MQ174-R1-DH-AR-3201	MV AND GENERATOR BUILDING STAIRS PLAN AND SECTION	B
MQ174-R1-DH-AR-3202	MV AND GENERATOR BUILDING STAIR AND RAMP TYPICAL DETAILS	B
MQ174-R1-DH-AR-3300	MV AND GENERATOR BUILDING BASEMENT FLOOR REFLECTED CEILING PLAN	B
MQ174-R1-DH-AR-3301	MV AND GENERATOR BUILDING GROUND FLOOR REFLECTED CEILING PLAN	B
MQ174-R1-DH-AR-3302	MV AND GENERATOR BUILDING GROUND FLOOR AND INTERNAL WALLS SETTING-OUT PLAN	A
MQ174-R1-DH-AR-3320	MV AND GENERATOR BUILDING TYPICAL WALL AND FLOOR DETAILS	B
MQ174-R1-DH-AR-3350	MV AND GENERATOR BUILDING DOOR ELEVATIONS	A
MQ174-R1-DH-AR-3351	MV AND GENERATOR BUILDING DOORS AND WINDOW ELEVATIONS	A
MQ174-R1-DH-AR-3360	MV AND GENERATOR BUILDING DOOR TYPICAL DETAILS	A
MQ174-R1-DH-AR-3361	MV AND GENERATOR BUILDING DOOR AND WINDOW TYPICAL DETAILS	A
MQ174-R1-DH-AR-3390	MV AND GENERATOR BUILDING DOOR AND WINDOWS SCHEDULES	A
MQ174-R1-DH-AR-3400	MV AND GENERATOR BUILDING BASEMENT FLOOR FIRE STRATEGY PLAN	A
MQ174-R1-DH-AR-3401	MV AND GENERATOR BUILDING GROUND FLOOR FIRE STRATEGY PLAN	A
MQ174-R1-DH-AR-3402	MV AND GENERATOR BUILDING BASEMENT FLOOR SIGNAGE PLAN AND SCHEDULE	A
MQ174-R1-DH-AR-3403	MV AND GENERATOR BUILDING GROUND FLOOR SIGNAGE PLAN	A
MQ174-R1-DH-AR-3404	MV AND GENERATOR BUILDING SIGNAGE STANDARD DETAILS	A
MQ174-R1-DH-AR-3430	MV AND GENERATOR BUILDING METAL LADDER 1 DETAILS	B
MQ174-R1-DH-AR-3431	MV AND GENERATOR BUILDING METAL LADDER 2 DETAILS	B
MQ174-R1-DH-AR-3450	MV AND GENERATOR BUILDING SCHEDULE OF FINISHES	B
	WATER TESTING FACILITY	
MQ174-R1-DH-AR-3500	WATER TESTING FACILITY BUILDING GROUND FLOOR PLAN	B
MQ174-R1-DH-AR-3501	WATER TESTING FACILITY BUILDING ROOF PLAN	A
MQ174-R1-DH-AR-3510	WATER TESTING FACILITY BUILDING ELEVATIONS	A
MQ174-R1-DH-AR-3520	WATER TESTING FACILITY BUILDING SECTIONS	A
MQ174-R1-DH-AR-3600	WATER TESTING FACILITY BUILDING EXTERNAL WALL DETAILS	B
MQ174-R1-DH-AR-3650	WATER TESTING FACILITY BUILDING TYPICAL ROOF DETAILS	A
MQ174-R1-DH-AR-3700	WATER TESTING FACILITY STAIRS AND RAMP PLAN AND SECTIONS	A
MQ174-R1-DH-AR-3701	WATER TESTING FACILITY STAIR AND RAMP TYPICAL DETAILS	A
MQ174-R1-DH-AR-3750	WATER TESTING FACILITY BUILDING MALE AND FEMALE TOILET PLANS AND SECTIONS	A
MQ174-R1-DH-AR-3751	WATER TESTING FACILITY BUILDING MALE AND FEMALE TOILET SECTIONS AND DETAILS	A
MQ174-R1-DH-AR-3760	WATER TESTING FACILITY BUILDING LABORATORY PLAN AND ELEVATION	A
MQ174-R1-DH-AR-3800	WATER TESTING FACILITY BUILDING GROUND FLOOR REFLECTED CEILING PLAN	A
MQ174-R1-DH-AR-3810	WATER TESTING FACILITY BUILDING GROUND FLOOR AND INTERNAL WALLS SETTING-OUT PLAN	A
MQ174-R1-DH-AR-3820	WATER TESTING FACILITY BUILDING TYPICAL CEILING DETAILS	A
MQ174-R1-DH-AR-3830	WATER TESTING FACILITY BUILDING TYPICAL FLOOR DETAILS	A
MQ174-R1-DH-AR-3840	WATER TESTING FACILITY BUILDING TYPICAL WALL DETAILS	A
MQ174-R1-DH-AR-3850	WATER TESTING FACILITY BUILDING DOOR ELEVATIONS	A

C LAUNCH	ISSUED FOR TENDER	E	DH
E ZZ.JAHAN	ISSUED FOR TENDER	E	DH
A ZZ.JAHAN	ISSUED FOR TENDER	E	DH
Rev. Date	Revision Details	Obs.	Child Aids
Status			
<b>TENDER</b>			
Scales	NTS	Current Issue Signatures	
	Given	L. ENKON	
Original Size	A1	Chester D. HALL	
Date	QNHQ	Approver A. TICKLE	
Projection	UTM - 39N	Date	NAS 200
Reference	MQ174-R1-BH-0C-0006-C.org		
Client	 <b>KARIB</b> <i>[Handwritten signature]</i> <i>[Small text below]</i>		

Project Code  
GTC/626/2014

Project  
WATER SECURITY  
MEGA RESERVOIRS  
PACKAGE A  
PRPS 1 - UMM BIRKA

ARCHITECTURAL DRAWING LIST

DRAWING NO.	TITLE	REV. NO.
M0174-R1-DH-AR-3501	WATER TESTING FACILITY BUILDING WINDOW ELEVATIONS AND DETAILS	B
M0174-R1-DH-AR-3510	WATER TESTING FACILITY BUILDING DOOR TYPICAL DETAILS	A
M0174-R1-DH-AR-3520	WATER TESTING FACILITY BUILDING DOOR AND WINDOW SCHEDULES	A
M0174-R1-DH-AR-3500	WATER TESTING FACILITY BUILDING GROUND FLOOR FIRE STRATEGY PLAN	A
M0174-R1-DH-AR-3501	WATER TESTING FACILITY BUILDING GROUND FLOOR SIGNAGE PLAN AND SCHEDULE	A
M0174-R1-DH-AR-3502	WATER TESTING FACILITY BUILDING SIGNAGE STANDARD DETAILS	A
M0174-R1-DH-AR-3530	WATER TESTING FACILITY BUILDING METAL LADDER DETAILS	A
M0174-R1-DH-AR-3550	WATER TESTING FACILITY BUILDING SCHEDULE OF FINISHES	A
AUXILIARY PUMPING STATION		
M0174-R1-DH-AR-4000	AUXILIARY PUMPING STATION FLOOR PLAN AND ROOF PLAN	B
M0174-R1-DH-AR-4005	AUXILIARY PUMPING STATION ELEVATIONS	A
M0174-R1-DH-AR-4010	AUXILIARY PUMPING STATION SECTIONS	A
M0174-R1-DH-AR-4015	AUXILIARY PUMPING STATION EXTERNAL WALL DETAILS	B
M0174-R1-DH-AR-4020	AUXILIARY PUMPING STATION TYPICAL ROOF DETAILS	A
M0174-R1-DH-AR-4025	AUXILIARY PUMPING STATION STAIRS PLAN, SECTION AND TYPICAL DETAILS	A
M0174-R1-DH-AR-4030	AUXILIARY PUMPING STATION RAMP TYPICAL DETAILS PLAN AND SECTIONS	A
M0174-R1-DH-AR-4035	AUXILIARY PUMPING STATION GROUND FLOOR REFLECTED CEILING PLAN	A
M0174-R1-DH-AR-4040	AUXILIARY PUMPING STATION GROUND FLOOR AND INTERNAL WALLS SETTING-OUT PLAN	A
M0174-R1-DH-AR-4045	AUXILIARY PUMPING STATION TYPICAL FLOOR AND WALL DETAILS	B
M0174-R1-DH-AR-4050	AUXILIARY PUMPING STATION DOORS ELEVATIONS, DETAILS AND SPECIFICATIONS	B
M0174-R1-DH-AR-4055	AUXILIARY PUMPING STATION GROUND FLOOR FIRE STRATEGY PLAN	A
M0174-R1-DH-AR-4075	AUXILIARY PUMPING STATION GROUND FLOOR SIGNAGE PLAN AND STANDARD DETAILS	A
M0174-R1-DH-AR-4080	AUXILIARY PUMPING STATION METAL LADDER 1 DETAILS	A
M0174-R1-DH-AR-4095	AUXILIARY PUMPING STATION SCHEDULE OF FINISHES	B
MANUFACTURE / CLEANERS / WORKSHOP BUILDING		
M0174-R1-DH-AR-5500	MANUFACTURE / CLEANERS / WORKSHOP BUILDING GROUND FLOOR PARTIAL PLAN 1	A
M0174-R1-DH-AR-5501	MANUFACTURE / CLEANERS / WORKSHOP BUILDING ROOF PLAN	A
M0174-R1-DH-AR-5510	MANUFACTURE / CLEANERS / WORKSHOP BUILDING ELEVATIONS	A
M0174-R1-DH-AR-5520	MANUFACTURE / CLEANERS / WORKSHOP BUILDING SECTIONS	B
M0174-R1-DH-AR-5521	MANUFACTURE / CLEANERS / WORKSHOP BUILDING SECTIONS	B
M0174-R1-DH-AR-5520	MANUFACTURE / CLEANERS / WORKSHOP BUILDING GROUND FLOOR PARTIAL PLAN 1	A
M0174-R1-DH-AR-5551	MANUFACTURE / CLEANERS / WORKSHOP BUILDING GROUND FLOOR PARTIAL PLAN 2	A
M0174-R1-DH-AR-5560	MANUFACTURE / CLEANERS / WORKSHOP BUILDING WALL SECTIONS	A
M0174-R1-DH-AR-5591	MANUFACTURE / CLEANERS / WORKSHOP BUILDING WALL SECTIONS	A
M0174-R1-DH-AR-5600	MANUFACTURE / CLEANERS / WORKSHOP BUILDING EXTERNAL WALL DETAILS	A
M0174-R1-DH-AR-5650	MANUFACTURE / CLEANERS / WORKSHOP BUILDING TYPICAL ROOF DETAILS	A
M0174-R1-DH-AR-5700	MANUFACTURE / CLEANERS / WORKSHOP BUILDING STAIRS PLAN AND SECTION	A
M0174-R1-DH-AR-5701	MANUFACTURE / CLEANERS / WORKSHOP BUILDING STAIRS AND RAMPS PLAN AND SECTION	A
M0174-R1-DH-AR-5740	MANUFACTURE / CLEANERS / WORKSHOP BUILDING STAIR AND RAMPS TYPICAL DETAILS	A
M0174-R1-DH-AR-5750	MANUFACTURE / CLEANERS / WORKSHOP BUILDING MALE TOILET AND ABILITION PLAN	A
M0174-R1-DH-AR-5751	MANUFACTURE / CLEANERS / WORKSHOP BUILDING MALE TOILET AND ABILITION SECTIONS	A
M0174-R1-DH-AR-5752	MANUFACTURE / CLEANERS / WORKSHOP BUILDING FEMALE TOILET PLAN	A
M0174-R1-DH-AR-5753	MANUFACTURE / CLEANERS / WORKSHOP BUILDING FEMALE TOILET SECTIONS	A
M0174-R1-DH-AR-5754	MANUFACTURE / CLEANERS / WORKSHOP BUILDING MALE TOILET AND ABILITION	A
M0174-R1-DH-AR-5755	MANUFACTURE / CLEANERS / WORKSHOP BUILDING MALE TOILET AND ABILITION SECTIONS	A
M0174-R1-DH-AR-5756	MANUFACTURE / CLEANERS / WORKSHOP BUILDING FEMALE TOILET SECTIONS	A
M0174-R1-DH-AR-5757	MANUFACTURE / CLEANERS / WORKSHOP BUILDING MALE TOILET AND ABILITION REFLECTED CEILING PLAN	A
M0174-R1-DH-AR-5751	MANUFACTURE / CLEANERS / WORKSHOP BUILDING FEMALE TOILET REFLECTED CEILING PLAN	A
M0174-R1-DH-AR-5760	MANUFACTURE / CLEANERS / WORKSHOP BUILDING KITCHEN / CANTEEN PLAN	A
M0174-R1-DH-AR-5761	MANUFACTURE / CLEANERS / WORKSHOP BUILDING KITCHEN / CANTEEN SECTION	A
M0174-R1-DH-AR-5762	MANUFACTURE / CLEANERS / WORKSHOP BUILDING KITCHEN / CANTEEN SECTION	A
M0174-R1-DH-AR-5763	MANUFACTURE / CLEANERS / WORKSHOP BUILDING KITCHEN / CANTEEN SECTION	A
M0174-R1-DH-AR-5764	MANUFACTURE / CLEANERS / WORKSHOP BUILDING KITCHEN / CANTEEN SECTION	A
M0174-R1-DH-AR-5765	MANUFACTURE / CLEANERS / WORKSHOP BUILDING KITCHEN / CANTEEN SECTION	A
M0174-R1-DH-AR-5770	MANUFACTURE / CLEANERS / WORKSHOP BUILDING TOILET TYPICAL DETAILS	A
M0174-R1-DH-AR-5771	MANUFACTURE / CLEANERS / WORKSHOP BUILDING TOILET TYPICAL DETAILS	A
M0174-R1-DH-AR-5772	MANUFACTURE / CLEANERS / WORKSHOP BUILDING GROUND FLOOR WALLS SETTING-OUT PLAN	A
M0174-R1-DH-AR-5773	MANUFACTURE / CLEANERS / WORKSHOP BUILDING CANTER COUNTER DETAILS	A
M0174-R1-DH-AR-5774	MANUFACTURE / CLEANERS / WORKSHOP BUILDING GROUND FLOOR REFLECTED CEILING PLAN	A
M0174-R1-DH-AR-5810	MANUFACTURE / CLEANERS / WORKSHOP BUILDING KITCHEN / CANTEEN REFLECTED CEILING PLAN	A
M0174-R1-DH-AR-5820	MANUFACTURE / CLEANERS / WORKSHOP BUILDING TYPICAL CEILING DETAILS	A
M0174-R1-DH-AR-5830	MANUFACTURE / CLEANERS / WORKSHOP BUILDING TYPICAL FLOOR DETAILS	A
M0174-R1-DH-AR-5840	MANUFACTURE / CLEANERS / WORKSHOP BUILDING TYPICAL WALL DETAILS	A
M0174-R1-DH-AR-5850	MANUFACTURE / CLEANERS / WORKSHOP BUILDING DOOR ELEVATIONS	A

DRAWING NO.	TITLE	REV. NO.
M0174-R-1-DH-AR-4851	Maintenance / Cleaners / Workshop Building Door Elevations	A
M0174-R-1-DH-AR-4860	Maintenance / Cleaners / Workshop Building Window Elevations	A
M0174-R-1-DH-AR-4870	Maintenance / Cleaners / Workshop Building Window Typical Details	A
M0174-R-1-DH-AR-4871	Maintenance / Cleaners / Workshop Building Door Typical Details	A
M0174-R-1-DH-AR-4872	Maintenance / Cleaners / Workshop Building Window Typical Details	A
M0174-R-1-DH-AR-4890	Maintenance / Cleaners / Workshop Building Door and Window Schedules	(1)
M0174-R-1-DH-AR-4900	Maintenance / Cleaners / Workshop Building Ground Floor Fire Strategy Plan	A
M0174-R-1-DH-AR-4901	Maintenance / Cleaners / Workshop Building Ground Floor Signage Plan and Schedules	A
M0174-R-1-DH-AR-5002	Maintenance / Cleaners / Workshop Building Signage Standard Details	A
M0174-R-1-DH-AR-9310	Maintenance / Cleaners / Workshop Building Metal Ladder Details	A
M0174-R-1-DH-AR-9310	Maintenance / Cleaners / Workshop Building Metal Ladder Details	(B)
M0174-R-1-DH-AR-9520	Maintenance / Cleaners / Workshop Building Schedule of Finishes	

DRAWING NO.	TITLE	REV. NO.
MQ174-R1-DH-AR-5535	UTILITY PUMPING STATION GROUND FLOOR AND INTERNAL WALLS SETTING-OUT PLAN	A
MQ174-R1-DH-AR-5540	UTILITY PUMPING STATION TYPICAL WALL AND FLOOR DETAILS	B
MQ174-R1-DH-AR-5545	UTILITY PUMPING STATION DOORS ELEVATIONS, DETAILS AND SCHEDULES	B
MQ174-R1-DH-AR-5560	UTILITY PUMPING STATION GROUND FLOOR FIRE STRATEGY PLAN	A
MQ174-R1-DH-AR-5561	UTILITY PUMPING STATION GROUND FLOOR SIGNAGE PLAN	A
MQ174-R1-DH-AR-5562	UTILITY PUMPING STATION SIGNAGE STANDARD DETAILS	A
MQ174-R1-DH-AR-5565	UTILITY PUMPING STATION METAL LADDER 1 DETAILS	A
MQ174-R1-DH-AR-5566	UTILITY PUMPING STATION METAL LADDER 2 DETAILS	A
MQ174-R1-DH-AR-5570	UTILITY PUMPING STATION SCHEDULE OF FINISHES	A
		△(B)
	BUILDING 19, 20, 21, 22, 23, 25 AND 26	
MQ174-R1-DH-AR-6000	BUILDING 19, 20, 21, 22, 23, 25 AND 26 TYPICAL FLOOR PLAN AND ROOF PLAN	B
MQ174-R1-DH-AR-6010	BUILDING 19, 20, 21, 22, 23, 25 AND 26 TYPICAL ELEVATIONS	A
MQ174-R1-DH-AR-6020	BUILDING 19, 20, 21, 22, 23, 25 AND 26 TYPICAL SECTIONS	A
MQ174-R1-DH-AR-6100	BUILDING 19, 20, 21, 22, 23, 25 AND 26 TYPICAL EXTERNAL WALL DETAILS	A
MQ174-R1-DH-AR-6150	BUILDING 19, 20, 21, 22, 23, 25 AND 26 TYPICAL ROOF DETAILS	A
MQ174-R1-DH-AR-6200	BUILDING 19, 20, 21, 22, 23, 25 AND 26 TYPICAL STAIRS PLAN, SECTION AND DETAILS	A
MQ174-R1-DH-AR-6300	BUILDING 19, 20, 21, 22, 23, 25 AND 26 TYPICAL GROUND FLOOR REFLECTED CEILING PLAN	A
MQ174-R1-DH-AR-6310	BUILDING 19, 20, 21, 22, 23, 25 AND 26 TYPICAL GROUND FLOOR AND INTERNAL WALLS SETTING-OUT PLAN	A
MQ174-R1-DH-AR-6320	BUILDING 19, 20, 21, 22, 23, 25 AND 26 TYPICAL WALL AND FLOOR DETAILS	A
MQ174-R1-DH-AR-6350	BUILDING 19, 20, 21, 22, 23, 25 AND 26 TYPICAL DOOR AND WINDOW ELEVATIONS, DETAILS AND SCHEDULES	B
MQ174-R1-DH-AR-6400	BUILDING 19, 20, 21, 22, 23, 25 AND 26 TYPICAL GROUND FLOOR FIRE STRATEGY PLAN	A
MQ174-R1-DH-AR-6410	BUILDING 19, 20, 21, 22, 23, 25 AND 26 TYPICAL GROUND FLOOR SIGNAGE PLAN AND STANDARD DETAILS	A
MQ174-R1-DH-AR-6430	BUILDING 19, 20, 21, 22, 23, 25 AND 26 TYPICAL METAL LADDER 1 DETAILS	A
MQ174-R1-DH-AR-6450	BUILDING 19, 20, 21, 22, 23, 25 AND 26 TYPICAL SCHEDULE OF FINISHES	A
	TFS GUARD HOUSE	
MQ174-R1-DH-AR-7000	TFS GUARD HOUSE [ENTRANCE] FLOOR PLAN AND ROOF PLAN	B
MQ174-R1-DH-AR-7005	TFS GUARD HOUSE [EXIT] FLOOR PLAN AND ROOF PLAN	B
MQ174-R1-DH-AR-7010	TFS GUARD HOUSE [ENTRANCE] ELEVATIONS	B
MQ174-R1-DH-AR-7015	TFS GUARD HOUSE [EXIT] ELEVATIONS	B
MQ174-R1-DH-AR-7020	TFS GUARD HOUSE [ENTRANCE] SECTIONS	A
MQ174-R1-DH-AR-7025	TFS GUARD HOUSE [EXIT] SECTIONS	A
MQ174-R1-DH-AR-7100	TFS GUARD HOUSE EXTERNAL WALL DETAILS	A
MQ174-R1-DH-AR-7150	TFS GUARD HOUSE TYPICAL ROOF DETAILS	A
MQ174-R1-DH-AR-7200	TFS GUARD HOUSE STAIRS DETAILS	A
MQ174-R1-DH-AR-7250	TFS GUARD HOUSE [ENTRANCE] TOILET PLANS AND SECTIONS	A
MQ174-R1-DH-AR-7255	TFS GUARD HOUSE [EXIT] TOILET PLAN AND SECTIONS	A
MQ174-R1-DH-AR-7260	TFS GUARD HOUSE [ENTRANCE] KITCHEN PLANS AND SECTIONS	A
MQ174-R1-DH-AR-7265	TFS GUARD HOUSE [EXIT] KITCHEN PLANS AND SECTIONS	A
MQ174-R1-DH-AR-7300	TFS GUARD HOUSE [ENTRANCE] GROUND FLOOR REFLECTED CEILING PLAN	A
MQ174-R1-DH-AR-7305	TFS GUARD HOUSE [EXIT] GROUND FLOOR REFLECTED CEILING PLAN	A
MQ174-R1-DH-AR-7310	TFS GUARD HOUSE [ENTRANCE] GROUND FLOOR WALLS SETTING-OUT PLAN	A
MQ174-R1-DH-AR-7315	TFS GUARD HOUSE [EXIT] GROUND FLOOR WALLS SETTING-OUT PLAN	A
MQ174-R1-DH-AR-7320	TFS GUARD HOUSE TYPICAL CEILING DETAILS	A
MQ174-R1-DH-AR-7330	TFS GUARD HOUSE TYPICAL FLOOR DETAILS	A
MQ174-R1-DH-AR-7340	TFS GUARD HOUSE TYPICAL WALL DETAILS	A
MQ174-R1-DH-AR-7350	TFS GUARD HOUSE DOOR AND WINDOW ELEVATIONS	B
MQ174-R1-DH-AR-7370	TFS GUARD HOUSE DOOR AND WINDOW TYPICAL DETAILS	B
MQ174-R1-DH-AR-7390	TFS GUARD HOUSE DOOR AND WINDOW SCHEDULE	A
MQ174-R1-DH-AR-7400	TFS GUARD HOUSE [ENTRANCE] GROUND FLOOR FIRE STRATEGY PLAN	A
MQ174-R1-DH-AR-7401	TFS GUARD HOUSE [ENTRANCE] GROUND FLOOR SIGNAGE PLAN AND STANDARD DETAILS	A
MQ174-R1-DH-AR-7405	TFS GUARD HOUSE [EXIT] GROUND FLOOR FIRE STRATEGY PLAN	A
MQ174-R1-DH-AR-7406	TFS GUARD HOUSE [EXIT] GROUND FLOOR SIGNAGE PLAN AND STANDARD DETAILS	A
MQ174-R1-DH-AR-7430	TFS GUARD HOUSE METAL LADDER 1 DETAILS	A
MQ174-R1-DH-AR-7440	TFS GUARD HOUSE RECEPTION DESK DETAILS	A
MQ174-R1-DH-AR-7450	TFS GUARD HOUSE SCHEDULE OF FINISHES	A
	TANKER FILLING STATION	
MQ174-R1-DH-AR-7500	TANKER FILLING STATION FLOOR PLAN AND ROOF PLAN	B
MQ174-R1-DH-AR-7505	TANKER FILLING STATION ELEVATIONS	A
MQ174-R1-DH-AR-7510	TANKER FILLING STATION SECTIONS	A
MQ174-R1-DH-AR-7515	TANKER FILLING STATION EXTERNAL WALL DETAILS	A
MQ174-R1-DH-AR-7520	TANKER FILLING STATION TYPICAL ROOF DETAILS	A

DRAWING NO.	TITLE	REV. NO.
MQ174-R1-DH-AR-7525	TANKER FILLING STATION STAIRS PLAN, SECTION AND TYPICAL DETAILS	A
MQ174-R1-DH-AR-7530	TANKER FILLING STATION RAMP DETAILED PLAN AND SECTION	A
MQ174-R1-DH-AR-7535	TANKER FILLING STATION GROUND FLOOR REFLECTED CEILING PLAN	A
MQ174-R1-DH-AR-7540	TANKER FILLING STATION GROUND FLOOR AND INTERNAL WALLS SETTING-OUT PLAN	A
MQ174-R1-DH-AR-7545	TANKER FILLING STATION TYPICAL FLOOR AND WALL DETAILS	A
MQ174-R1-DH-AR-7555	TANKER FILLING STATION DOORS ELEVATIONS, DETAILS AND SCHEDULE	B
MQ174-R1-DH-AR-7570	TANKER FILLING STATION GROUND FLOOR FIRE STRATEGY PLAN	A
MQ174-R1-DH-AR-7575	TANKER FILLING STATION GROUND FLOOR SIGNAGE PLAN AND STANDARD DETAILS	A
MQ174-R1-DH-AR-7580	TANKER FILLING STATION METAL LADDER 1 DETAILS	A
MQ174-R1-DH-AR-7585	TANKER FILLING STATION SCHEDULE OF FINISHES	A
	REMOTE GENERATOR BUILDING 1	
MQ174-R1-DH-AR-8000	REMOTE GENERATOR BUILDING 1 GROUND FLOOR PLAN	B
MQ174-R1-DH-AR-8001	REMOTE GENERATOR BUILDING 1 ROOF PLAN	B
MQ174-R1-DH-AR-8010	REMOTE GENERATOR BUILDING 1 ELEVATIONS	B
MQ174-R1-DH-AR-8020	REMOTE GENERATOR BUILDING 1 SECTIONS	B
MQ174-R1-DH-AR-8021	REMOTE GENERATOR BUILDING 1 SECTIONS	B
MQ174-R1-DH-AR-8100	REMOTE GENERATOR BUILDING 1 EXTERNAL WALL DETAILS	C
MQ174-R1-DH-AR-8150	REMOTE GENERATOR BUILDING 1 TYPICAL ROOF DETAILS	A
MQ174-R1-DH-AR-8200	REMOTE GENERATOR BUILDING 1 STAIR AND RAMP DETAILS	B
MQ174-R1-DH-AR-8300	REMOTE GENERATOR BUILDING 1 GROUND FLOOR REFLECTED CEILING PLAN	A
MQ174-R1-DH-AR-8310	REMOTE GENERATOR BUILDING 1 GROUND FLOOR AND INTERNAL WALLS SETTING-OUT PLAN	A
MQ174-R1-DH-AR-8320	REMOTE GENERATOR BUILDING 1 TYPICAL DETAILS	B
MQ174-R1-DH-AR-8350	REMOTE GENERATOR BUILDING 1 DOORS AND WINDOW TYPICAL DETAILS	A
MQ174-R1-DH-AR-8390	REMOTE GENERATOR BUILDING 1 GROUND FLOOR DOOR AND WINDOW SCHEDULES	A
MQ174-R1-DH-AR-8400	REMOTE GENERATOR BUILDING 1 GROUND FLOOR FIRE STRATEGY PLAN	A
MQ174-R1-DH-AR-8410	REMOTE GENERATOR BUILDING 1 GROUND FLOOR SIGNAGE PLAN AND STANDARD DETAILS	A
MQ174-R1-DH-AR-8411	REMOTE GENERATOR BUILDING 1 SIGNAGE STANDARD DETAILS	A
MQ174-R1-DH-AR-8430	REMOTE GENERATOR BUILDING 1 METAL LADDER DETAILS	B
MQ174-R1-DH-AR-8450	REMOTE GENERATOR BUILDING 1 SCHEDULE OF FINISHES	B
	REMOTE SUBSTATION BUILDING 1 & 2, 3 AND 4	
MQ174-R1-DH-AR-8500	REMOTE SUBSTATION BUILDING 1 AND 2 FLOOR PLAN	
MQ174-R1-DH-AR-8501	REMOTE SUBSTATION BUILDING 1 AND 2 ROOF PLAN	A
MQ174-R1-DH-AR-8505	REMOTE SUBSTATION BUILDING 1 FLOOR PLAN AND ROOF PLAN	
MQ174-R1-DH-AR-8506	REMOTE SUBSTATION BUILDING 1 & 2 FLOOR PLAN AND ROOF PLAN	C
MQ174-R1-DH-AR-8507	REMOTE SUBSTATION BUILDING 1 AND 2 ELEVATIONS	A
MQ174-R1-DH-AR-8511	REMOTE SUBSTATION BUILDING 1 AND 2 ELEVATIONS	A
MQ174-R1-DH-AR-8515	REMOTE SUBSTATION BUILDING 3 ELEVATIONS	B
MQ174-R1-DH-AR-8516	REMOTE SUBSTATION BUILDING 3 ELEVATIONS	B
MQ174-R1-DH-AR-8517	REMOTE SUBSTATION BUILDING 4 ELEVATIONS	B
MQ174-R1-DH-AR-8518	REMOTE SUBSTATION BUILDING 4 ELEVATIONS	A
MQ174-R1-DH-AR-8520	REMOTE SUBSTATION BUILDING 1 AND 2 SECTIONS	A
MQ174-R1-DH-AR-8525	REMOTE SUBSTATION BUILDING 3 SECTIONS	B
MQ174-R1-DH-AR-8526	REMOTE SUBSTATION BUILDING 4 SECTIONS	B
MQ174-R1-DH-AR-8600	REMOTE SUBSTATION BUILDING 1, 2, 3 AND 4 EXTERNAL WALL DETAILS	A
MQ174-R1-DH-AR-8550	REMOTE SUBSTATION BUILDING 1, 2, 3 AND 4 TYPICAL ROOF DETAILS	A
MQ174-R1-DH-AR-8700	REMOTE SUBSTATION BUILDING 1, 2, 3 AND 4 STAIR AND RAMPS, SECTION AND TYPICAL DETAILS	A
MQ174-R1-DH-AR-8800	REMOTE SUBSTATION BUILDING 1 AND 2 GROUND FLOOR REFLECTED CEILING PLAN	A
MQ174-R1-DH-AR-8805	REMOTE SUBSTATION BUILDING 3 GROUND FLOOR REFLECTED CEILING PLAN	A
MQ174-R1-DH-AR-8806	REMOTE SUBSTATION BUILDING 4 GROUND FLOOR REFLECTED CEILING PLAN	A
MQ174-R1-DH-AR-8810	REMOTE SUBSTATION BUILDING 1 AND 2 GROUND FLOOR WALLS SETTING-OUT PLAN	A
MQ174-R1-DH-AR-8815	REMOTE SUBSTATION BUILDING 3 GROUND FLOOR WALLS SETTING-OUT PLAN	A
MQ174-R1-DH-AR-8816	REMOTE SUBSTATION BUILDING 4 GROUND FLOOR WALLS SETTING-OUT PLAN	A
MQ174-R1-DH-AR-8820	REMOTE SUBSTATION BUILDING 1, 2, 3 AND 4 TYPICAL CEILING, WALL AND FLOOR DETAILS	A
MQ174-R1-DH-AR-8850	REMOTE SUBSTATION BUILDING 1, 2, 3 AND 4 DOOR AND WINDOW ELEVATIONS AND TYPICAL DETAILS	A
MQ174-R1-DH-AR-8890	REMOTE SUBSTATION BUILDING 1, 2, 3 AND 4 GROUND FLOOR DOOR AND WINDOW SCHEDULES	B
MQ174-R1-DH-AR-8900	REMOTE SUBSTATION BUILDING 1 AND 2 GROUND FLOOR FIRE STRATEGY PLAN	A
MQ174-R1-DH-AR-8905	REMOTE SUBSTATION BUILDING 3 GROUND FLOOR FIRE STRATEGY PLAN	A
MQ174-R1-DH-AR-8906	REMOTE SUBSTATION BUILDING 4 GROUND FLOOR FIRE STRATEGY PLAN	A
MQ174-R1-DH-AR-8910	REMOTE SUBSTATION BUILDING 1 AND 2 GROUND FLOOR SIGNAGE PLAN AND SCHEDULES	A
MQ174-R1-DH-AR-8914	REMOTE SUBSTATION BUILDING 3 GROUND FLOOR SIGNAGE PLAN	A
MQ174-R1-DH-AR-8915	REMOTE SUBSTATION BUILDING 4 GROUND FLOOR SIGNAGE PLAN	A

C 24/08/14 ISSUED FOR TENDER		IE	DH	AT
B 32/08/14 RESERVED FOR TENDER		IE	DH	AT
A 09/09/14 ISSUED FOR TENDER		IE	DH	AT
Rev. Date	Revision Details	Drawn	Check	Appd
Status				
TENDER				
Scales	NTS	Current Issue Signatures		
		Drawn	LEONIAMS	
Original Size	A1	Checker	D. HALAJI	
Datum	QNH0	Approver	A. TICKLE	
Projection	UTM - 39N	Date	MAR 2014	
Filename	MQ174-R1-DH-GE-0008-C.dwg			
Client	KANHA LLC - KUWAIT CITY, KUWAIT			
REMARKS				
Project Code: GTC/626/2014				
Project: WATER SECURITY MEGA RESERVOIRS PACKAGE A PRPS 1 - UMM BIRKA				
TIN#				
ARCHITECTURAL DRAWING LIST SHEET 04 OF 05				
Drawing No.	MQ174-R1 - DH - GE - 0008			
Rev	C			

DRAWING NO.	TITLE	REV. NO.
MQ174-R1-DH-AR-8916	REMOTE SUBSTATION BUILDING 1, 2, 3 AND 4 GROUND FLOOR SIGNAGE DETAILS	A
MQ174-R1-DH-AR-8930	REMOTE SUBSTATION BUILDING 1, 2, 3 AND 4 METAL LADDER DETAILS	A
MQ174-R1-DH-AR-8950	REMOTE SUBSTATION BUILDING 1, 2, 3 AND 4 SCHEDULE OF FINISHES	B
	WATER QUALITY MONITORING BUILDING	
MQ174-R1-DH-AR-9000	WATER QUALITY MONITORING BUILDING FLOOR PLAN AND ROOF PLAN	B
MQ174-R1-DH-AR-9010	WATER QUALITY MONITORING BUILDING ELEVATIONS	A
MQ174-R1-DH-AR-9020	WATER QUALITY MONITORING BUILDING SECTIONS	A
MQ174-R1-DH-AR-9100	WATER QUALITY MONITORING BUILDING EXTERNAL WALL DETAILS	A
MQ174-R1-DH-AR-9150	WATER QUALITY MONITORING BUILDING TYPICAL ROOF DETAILS	A
MQ174-R1-DH-AR-9200	WATER QUALITY MONITORING BUILDING STAIR DETAILS	A
MQ174-R1-DH-AR-9300	WATER QUALITY MONITORING BUILDING GROUND FLOOR REFLECTED CEILING PLAN	A
MQ174-R1-DH-AR-9310	WATER QUALITY MONITORING BUILDING GROUND FLOOR WALLS SETTING-OUT PLAN	A
MQ174-R1-DH-AR-9320	WATER QUALITY MONITORING BUILDING TYPICAL DETAILS	A
MQ174-R1-DH-AR-9350	WATER QUALITY MONITORING BUILDING DOOR AND WINDOW DETAILS	B
MQ174-R1-DH-AR-9400	WATER QUALITY MONITORING BUILDING GROUND FLOOR FIRE STRATEGY PLAN	A
MQ174-R1-DH-AR-9410	WATER QUALITY MONITORING BUILDING GROUND FLOOR SIGNAGE PLAN AND STANDARD DETAILS	A
MQ174-R1-DH-AR-9430	WATER QUALITY MONITORING BUILDING METAL LADDER 1 DETAILS	A
MQ174-R1-DH-AR-9450	WATER QUALITY MONITORING BUILDING SCHEDULE OF FINISHES	A
	BOUNDARY WALL	
MQ174-R1-DH-AR-9500	BOUNDARY WALL PLAN	A
MQ174-R1-DH-AR-9505	BOUNDARY WALL ELEVATIONS	A
MQ174-R1-DH-AR-9506	BOUNDARY WALL ELEVATIONS	A
MQ174-R1-DH-AR-9507	BOUNDARY WALL ELEVATIONS	A
MQ174-R1-DH-AR-9508	BOUNDARY WALL ELEVATIONS	A
MQ174-R1-DH-AR-9509	BOUNDARY WALL ELEVATIONS	A
MQ174-R1-DH-AR-9510	BOUNDARY WALL TYPICAL DETAILS	A
MQ174-R1-DH-AR-9511	BOUNDARY WALL TYPICAL DETAILS	A
MQ174-R1-DH-AR-9512	BOUNDARY WALL TYPICAL DETAILS	A
MQ174-R1-DH-AR-9600	BOUNDARY WALL ENLARGED GATE PLAN AND ELEVATION	A
MQ174-R1-DH-AR-9601	BOUNDARY WALL ENLARGED GATE TYPICAL DETAILS	A

C. DRAFTS ISSUED FOR TENDER  
B. 22 XAMS ISSUED FOR TENDER  
A. DRAWN ISSUED FOR TENDER

X. OH AT  
E. OH AT  
R. OH AT

Rev. Date Revision Details Ord. Chkd Appd

Status

TENDER

Scales NTS Current Issue Signatures

Original Size A1 Drawn J. ENCHAS

Datum QNHD Checker D. HALLI

Projected UTM - 39N Approver A. TICKLE

Filename: MQ174-R1-DH-GE-0009-C.dwg Date MAR 2014

Client

KAHRB M&A Engineering Services LLC  
Engineering Design & Construction

Project Code GTC/626/2014

Project WATER SECURITY  
MEGA RESERVOIRS  
PACKAGE A  
PRPS 1 – UMM BIRKA

Title ARCHITECTURAL  
DRAWING LIST  
SHEET 05 OF 05

Drawing No. MQ174-R1-DH-GE-0009 Rev C

DRAWING NO.	TITLE	REV. NO.
MQ174-R1-DH-GE-0010	LANDSCAPE DRAWING LIST SHEET 01 OF 01	A(B)
MQ174-R1-DH-LE-0001	LANDSCAPE GENERAL NOTES	A
MQ174-R1-DH-LE-0002	LANDSCAPE GENERAL SCHEDULE	A(B)
MQ174-R1-DH-LE-1000	LANDSCAPE GENERAL KEY PLAN	A(B)
MQ174-R1-DH-LE-1001	LANDSCAPE GENERAL ARRANGEMENT LAYOUT	B
MQ174-R1-DH-LE-1002	LANDSCAPE GENERAL ARRANGEMENT LAYOUT	A
MQ174-R1-DH-LE-1003	LANDSCAPE GENERAL ARRANGEMENT LAYOUT	A
MQ174-R1-DH-LE-1004	LANDSCAPE GENERAL ARRANGEMENT LAYOUT	A
MQ174-R1-DH-LE-1005	LANDSCAPE GENERAL ARRANGEMENT LAYOUT	A
MQ174-R1-DH-LE-1006	LANDSCAPE GENERAL ARRANGEMENT LAYOUT	A
MQ174-R1-DH-LE-1007	LANDSCAPE GENERAL ARRANGEMENT LAYOUT	A
MQ174-R1-DH-LE-1008	LANDSCAPE GENERAL ARRANGEMENT LAYOUT	A
MQ174-R1-DH-LE-1009	LANDSCAPE GENERAL ARRANGEMENT LAYOUT	A
MQ174-R1-DH-LE-1010	LANDSCAPE GENERAL ARRANGEMENT LAYOUT	A
MQ174-R1-DH-LE-1011	LANDSCAPE GENERAL ARRANGEMENT LAYOUT	A
MQ174-R1-DH-LE-1012	LANDSCAPE GENERAL ARRANGEMENT LAYOUT	A(B)
MQ174-R1-DH-LE-1013	LANDSCAPE GENERAL ARRANGEMENT LAYOUT	B
MQ174-R1-DH-LE-1014	LANDSCAPE GENERAL ARRANGEMENT LAYOUT	B
MQ174-R1-DH-LE-1015	LANDSCAPE GENERAL ARRANGEMENT LAYOUT	A
MQ174-R1-DH-LE-1016	LANDSCAPE GENERAL ARRANGEMENT LAYOUT	A
MQ174-R1-DH-LE-1017	LANDSCAPE GENERAL ARRANGEMENT LAYOUT	A(B)
MQ174-R1-DH-LE-1018	LANDSCAPE GENERAL ARRANGEMENT LAYOUT	B
MQ174-R1-DH-LE-2000	LANDSCAPE HARDSCAPE KEY PLAN	A(B)
MQ174-R1-DH-LE-2001	LANDSCAPE HARDSCAPE LAYOUT	B
MQ174-R1-DH-LE-2002	LANDSCAPE HARDSCAPE LAYOUT	A
MQ174-R1-DH-LE-2003	LANDSCAPE HARDSCAPE LAYOUT	A
MQ174-R1-DH-LE-2004	LANDSCAPE HARDSCAPE LAYOUT	A
MQ174-R1-DH-LE-2005	LANDSCAPE HARDSCAPE LAYOUT	A(B)
MQ174-R1-DH-LE-2006	LANDSCAPE HARDSCAPE LAYOUT	A
MQ174-R1-DH-LE-2007	LANDSCAPE HARDSCAPE LAYOUT	A
MQ174-R1-DH-LE-2008	LANDSCAPE HARDSCAPE LAYOUT	A
MQ174-R1-DH-LE-2009	LANDSCAPE HARDSCAPE LAYOUT	A
MQ174-R1-DH-LE-2010	LANDSCAPE HARDSCAPE LAYOUT	A
MQ174-R1-DH-LE-2011	LANDSCAPE HARDSCAPE LAYOUT	A
MQ174-R1-DH-LE-2012	LANDSCAPE HARDSCAPE LAYOUT	A(B)
MQ174-R1-DH-LE-2013	LANDSCAPE HARDSCAPE LAYOUT	B
MQ174-R1-DH-LE-2014	LANDSCAPE HARDSCAPE LAYOUT	B
MQ174-R1-DH-LE-2015	LANDSCAPE HARDSCAPE LAYOUT	A
MQ174-R1-DH-LE-2016	LANDSCAPE HARDSCAPE LAYOUT	A
MQ174-R1-DH-LE-2017	LANDSCAPE HARDSCAPE LAYOUT	A(B)
MQ174-R1-DH-LE-2018	LANDSCAPE HARDSCAPE LAYOUT	B
MQ174-R1-DH-LE-3000	LANDSCAPE SOFTSCAPE KEY PLAN	A(B)
MQ174-R1-DH-LE-3001	LANDSCAPE SOFTSCAPE LAYOUT	B
MQ174-R1-DH-LE-3002	LANDSCAPE SOFTSCAPE LAYOUT	A
MQ174-R1-DH-LE-3003	LANDSCAPE SOFTSCAPE LAYOUT	A
MQ174-R1-DH-LE-3004	LANDSCAPE SOFTSCAPE LAYOUT	A
MQ174-R1-DH-LE-3005	LANDSCAPE SOFTSCAPE LAYOUT	A
MQ174-R1-DH-LE-3006	LANDSCAPE SOFTSCAPE LAYOUT	A
MQ174-R1-DH-LE-3007	LANDSCAPE SOFTSCAPE LAYOUT	A
MQ174-R1-DH-LE-3008	LANDSCAPE SOFTSCAPE LAYOUT	A
MQ174-R1-DH-LE-3009	LANDSCAPE SOFTSCAPE LAYOUT	A
MQ174-R1-DH-LE-3010	LANDSCAPE SOFTSCAPE LAYOUT	A
MQ174-R1-DH-LE-3011	LANDSCAPE SOFTSCAPE LAYOUT	A
MQ174-R1-DH-LE-3012	LANDSCAPE SOFTSCAPE LAYOUT	A(B)
MQ174-R1-DH-LE-3013	LANDSCAPE SOFTSCAPE LAYOUT	B
MQ174-R1-DH-LE-3014	LANDSCAPE SOFTSCAPE LAYOUT	B
MQ174-R1-DH-LE-3015	LANDSCAPE SOFTSCAPE LAYOUT	A
MQ174-R1-DH-LE-3016	LANDSCAPE SOFTSCAPE LAYOUT	A
MQ174-R1-DH-LE-3017	LANDSCAPE SOFTSCAPE LAYOUT	A(B)
MQ174-R1-DH-LE-3018	LANDSCAPE SOFTSCAPE LAYOUT	B
MQ174-R1-DH-LE-7000	LANDSCAPE DETAILS	A
MQ174-R1-DH-LE-7001	LANDSCAPE DETAILS	A
MQ174-R1-DH-LE-7002	LANDSCAPE DETAILS	A

B 22A/W4 ISSUED FOR TENDER E OH AT  
A 02MARS ISSUED FOR TENDER E OH AT

Rev. Date Revision Details Drc Chkd Appd

Status TENDER

Scales NTS Current Issue Signatures  
Drawn LEONIAMS

Original Size A1 Checker B. HALALI

Format QNHQ Approver A. TICKLE

Projection UTM - 39N Date MAR 2014

Filename MQ174-R1-DH-GE-0010-B.dwg Client

KAHBI LLC ٢٠١٤ © كاهبي لlc LLC. All rights reserved. Confidential Design Drawing. Not for Circulation

Project Code GTC/626/2014

Project WATER SECURITY  
MEGA RESERVOIRS  
PACKAGE A  
PRPS 1 – UMM BIRKA

Title

LANDSCAPE  
DRAWING LIST  
SHEET 01 OF 01

Drawing No. MQ174-R1 - DH - GE - 0010 Rev. B

DRAWING No.	DRAWING TITLE	REV No.
GENERAL		
SERIES 0001-0004	GENERAL DRAWINGS	
MQ174-R1-DH-GE-0001	CIVIL DRAWING LIST SHEET 01 OF 04	A
MQ174-R1-DH-GE-0002	CIVIL DRAWING LIST SHEET 02 OF 04	A
MQ174-R1-DH-GE-0003	CIVIL DRAWING LIST SHEET 03 OF 04	A
MQ174-R1-DH-GE-0004	CIVIL DRAWING LIST SHEET 04 OF 04	A
CIVIL		
SERIES 0001-0012	GENERAL NOTES, LEGENDS & SCHEDULE DRAWINGS	
MQ174-R1-DH-CI-0001	FOUL SEWER GENERAL NOTES & LEGENDS	A
MQ174-R1-DH-CI-0002	FOUL SEWER MANHOLE SCHEDULE	A
MQ174-R1-DH-CI-0003	UNDER FLOOR DRAINAGE MANHOLE SCHEDULE	A
MQ174-R1-DH-CI-0005	STORM WATER GENERAL NOTES AND LEGENDS	A
MQ174-R1-DH-CI-0006	STORM WATER CATCH BASIN AND MANHOLE SCHEDULE	A
MQ174-R1-DH-CI-0007	ROADS GENERAL NOTES AND LEGENDS	A
MQ174-R1-DH-CI-0008 TO 0009	NOT USED	
MQ174-R1-DH-CI-0010	PROCESS PIPES PIPELINE SCHEDULE	A
MQ174-R1-DH-CI-0011	POTABLE, IRRIGATION AND FIRE FIGHTING ISOLATION VALVE CHAMBER SCHEDULE	A
MQ174-R1-DH-CI-0012	POTABLE, IRRIGATION AND FIRE FIGHTING ROAD CROSSING SCHEDULE	A
SERIES 1000-1005	CIVIL DRAWINGS	
MQ174-R1-DH-CI-1000	PRPS LOCALITY PLAN	A
MQ174-R1-DH-CI-1001	SITE PLAN	A
MQ174-R1-DH-CI-1003	HYDRAULIC SUMMARY TABLE	A
MQ174-R1-DH-CI-1004	HYDRAULIC SECTION SHEET 01 OF 02	A
MQ174-R1-DH-CI-1005	HYDRAULIC SECTION SHEET 02 OF 02	A
SERIES 1010-1030	BUILDING LOCATIONS SETTING OUT POINTS	
MQ174-R1-DH-CI-1010	TO BE ISSUED AT LATER STAGE	
MQ174-R1-DH-CI-1011	TO BE ISSUED AT LATER STAGE	
MQ174-R1-DH-CI-1012	TO BE ISSUED AT LATER STAGE	
MQ174-R1-DH-CI-1013	TO BE ISSUED AT LATER STAGE	
MQ174-R1-DH-CI-1014	TO BE ISSUED AT LATER STAGE	
MQ174-R1-DH-CI-1015	TO BE ISSUED AT LATER STAGE	
MQ174-R1-DH-CI-1016	TO BE ISSUED AT LATER STAGE	
MQ174-R1-DH-CI-1017	TO BE ISSUED AT LATER STAGE	
MQ174-R1-DH-CI-1018	TO BE ISSUED AT LATER STAGE	
MQ174-R1-DH-CI-1019	TO BE ISSUED AT LATER STAGE	
MQ174-R1-DH-CI-1020	TO BE ISSUED AT LATER STAGE	
MQ174-R1-DH-CI-1021	TO BE ISSUED AT LATER STAGE	
MQ174-R1-DH-CI-1022	TO BE ISSUED AT LATER STAGE	
MQ174-R1-DH-CI-1023	TO BE ISSUED AT LATER STAGE	
MQ174-R1-DH-CI-1024	TO BE ISSUED AT LATER STAGE	
MQ174-R1-DH-CI-1025	TO BE ISSUED AT LATER STAGE	
MQ174-R1-DH-CI-1026	TO BE ISSUED AT LATER STAGE	
MQ174-R1-DH-CI-1027	TO BE ISSUED AT LATER STAGE	
MQ174-R1-DH-CI-1028	TO BE ISSUED AT LATER STAGE	
MQ174-R1-DH-CI-1029	TO BE ISSUED AT LATER STAGE	
MQ174-R1-DH-CI-1030	TO BE ISSUED AT LATER STAGE	
SERIES 100-1121	PRPS FINAL GRADING	
MQ174-R1-DH-CI-1100	PRPS FINAL GRADING LAYOUT PLAN	A
MQ174-R1-DH-CI-1101	PRPS FINAL GRADING LONGITUDINAL SECTION SHEET 01 OF 09	A
MQ174-R1-DH-CI-1102	PRPS FINAL GRADING LONGITUDINAL SECTION SHEET 02 OF 09	A
MQ174-R1-DH-CI-1103	PRPS FINAL GRADING LONGITUDINAL SECTION SHEET 03 OF 09	A
MQ174-R1-DH-CI-1104	PRPS FINAL GRADING LONGITUDINAL SECTION SHEET 04 OF 09	A
MQ174-R1-DH-CI-1105	PRPS FINAL GRADING LONGITUDINAL SECTION SHEET 05 OF 09	A
MQ174-R1-DH-CI-1106	PRPS FINAL GRADING LONGITUDINAL SECTION SHEET 06 OF 09	A
MQ174-R1-DH-CI-1107	PRPS FINAL GRADING LONGITUDINAL SECTION SHEET 07 OF 09	A
MQ174-R1-DH-CI-1108	PRPS FINAL GRADING LONGITUDINAL SECTION SHEET 08 OF 09	A
MQ174-R1-DH-CI-1109	PRPS FINAL GRADING LONGITUDINAL SECTION SHEET 09 OF 09	A
MQ174-R1-DH-CI-1110 – 1119	NOT USED	
MQ174-R1-DH-CI-1120	BUND 1 LONGITUDINAL SECTION SHEET 01 OF 02	A
MQ174-R1-DH-CI-1121	BUND 1, 2 & 3 LONGITUDINAL SECTION SHEET 02 OF 02	A
SERIES 1200-1205	ROADS/UTILITIES	
MQ174-R1-DH-CI-1200	ROADS/UTILITIES RESERVATIONS KEY PLAN	A
MQ174-R1-DH-CI-1201	ROADS/UTILITIES RESERVATION SECTIONS SHEET 01 OF 05	A
MQ174-R1-DH-CI-1202	ROADS/UTILITIES RESERVATION SECTIONS SHEET 02 OF 06	A
MQ174-R1-DH-CI-1203	ROADS/UTILITIES RESERVATION SECTIONS SHEET 03 OF 06	A
MQ174-R1-DH-CI-1204	ROADS/UTILITIES RESERVATION SECTIONS SHEET 04 OF 06	A
MQ174-R1-DH-CI-1205	ROADS/UTILITIES RESERVATION SECTIONS SHEET 05 OF 06	A

DRAWING No.	DRAWING TITLE	REV No.
SERIES 1200-1206	ROADS/UTILITIES	
MQ174-R1-DH-CI-1206	ROADS/UTILITIES RESERVATION SECTIONS SHEET 06 OF 06	A
SERIES 2000-2018	SITE GRADING	
MQ174-R1-DH-CI-2000	SITE GRADING KEY PLAN	A
MQ174-R1-DH-CI-2001	SITE GRADING PLAN SHEET 01 OF 18	A
MQ174-R1-DH-CI-2002	SITE GRADING PLAN SHEET 02 OF 18	A
MQ174-R1-DH-CI-2003	SITE GRADING PLAN SHEET 03 OF 18	A
MQ174-R1-DH-CI-2004	SITE GRADING PLAN SHEET 04 OF 18	A
MQ174-R1-DH-CI-2005	SITE GRADING PLAN SHEET 05 OF 18	A
MQ174-R1-DH-CI-2006	SITE GRADING PLAN SHEET 06 OF 18	A
MQ174-R1-DH-CI-2007	SITE GRADING PLAN SHEET 07 OF 18	A
MQ174-R1-DH-CI-2008	SITE GRADING PLAN SHEET 08 OF 18	A
MQ174-R1-DH-CI-2009	SITE GRADING PLAN SHEET 09 OF 18	A
MQ174-R1-DH-CI-2010	SITE GRADING PLAN SHEET 10 OF 18	A
MQ174-R1-DH-CI-2011	SITE GRADING PLAN SHEET 11 OF 18	A
MQ174-R1-DH-CI-2012	SITE GRADING PLAN SHEET 12 OF 18	A
MQ174-R1-DH-CI-2013	SITE GRADING PLAN SHEET 13 OF 18	A
MQ174-R1-DH-CI-2014	SITE GRADING PLAN SHEET 14 OF 18	A
MQ174-R1-DH-CI-2015	SITE GRADING PLAN SHEET 15 OF 18	A
MQ174-R1-DH-CI-2016	SITE GRADING PLAN SHEET 16 OF 18	A
MQ174-R1-DH-CI-2017	SITE GRADING PLAN SHEET 17 OF 18	A
MQ174-R1-DH-CI-2018	SITE GRADING PLAN SHEET 18 OF 18	A
SERIES 2021-2028	SITE GRADING SECTION	
MQ174-R1-DH-CI-2021	SITE GRADING SECTIONS SHEET 01 OF 08	A
MQ174-R1-DH-CI-2022	SITE GRADING SECTIONS SHEET 02 OF 08	A
MQ174-R1-DH-CI-2023	SITE GRADING SECTIONS SHEET 03 OF 08	A
MQ174-R1-DH-CI-2024	SITE GRADING SECTIONS SHEET 04 OF 08	A
MQ174-R1-DH-CI-2025	SITE GRADING SECTIONS SHEET 05 OF 08	A
MQ174-R1-DH-CI-2026	SITE GRADING SECTIONS SHEET 06 OF 08	A
MQ174-R1-DH-CI-2027	SITE GRADING SECTIONS SHEET 07 OF 08	A
MQ174-R1-DH-CI-2028	SITE GRADING SECTIONS SHEET 08 OF 08	A
SERIES 2100-2121	ROAD LAYOUT	
MQ174-R1-DH-CI-2100	KEY PLAN ROAD LAYOUT	A
MQ174-R1-DH-CI-2101	ROAD LAYOUT PLANS SHEET 01 OF 18	A
MQ174-R1-DH-CI-2102	ROAD LAYOUT PLANS SHEET 02 OF 18	A
MQ174-R1-DH-CI-2103	ROAD LAYOUT PLANS SHEET 03 OF 18	A
MQ174-R1-DH-CI-2104	ROAD LAYOUT PLANS SHEET 04 OF 18	A
MQ174-R1-DH-CI-2105	ROAD LAYOUT PLANS SHEET 05 OF 18	A
MQ174-R1-DH-CI-2106	ROAD LAYOUT PLANS SHEET 06 OF 18	A
MQ174-R1-DH-CI-2107	ROAD LAYOUT PLANS SHEET 07 OF 18	A
MQ174-R1-DH-CI-2108	ROAD LAYOUT PLANS SHEET 08 OF 18	A
MQ174-R1-DH-CI-2109	ROAD LAYOUT PLANS SHEET 09 OF 18	A
MQ174-R1-DH-CI-2110	ROAD LAYOUT PLANS SHEET 10 OF 18	A
MQ174-R1-DH-CI-2111	ROAD LAYOUT PLANS SHEET 11 OF 18	A
MQ174-R1-DH-CI-2112	ROAD LAYOUT PLANS SHEET 12 OF 18	A
MQ174-R1-DH-CI-2113	ROAD LAYOUT PLANS SHEET 13 OF 18	A
MQ174-R1-DH-CI-2114	ROAD LAYOUT PLANS SHEET 14 OF 18	A
MQ174-R1-DH-CI-2115	ROAD LAYOUT PLANS SHEET 15 OF 18	A
MQ174-R1-DH-CI-2116	ROAD LAYOUT PLANS SHEET 16 OF 18	A
MQ174-R1-DH-CI-2117	ROAD LAYOUT PLANS SHEET 17 OF 18	A
MQ174-R1-DH-CI-2118	ROAD LAYOUT PLANS SHEET 18 OF 18	A
MQ174-R1-DH-CI-2119	ROAD HORIZONTAL ALIGNMENT SETTING-OUT SCHEDULE	A
MQ174-R1-DH-CI-2120	JUNCTION KERB RETURN ALIGNMENT SETTING-OUT SCHEDULE SHEET 01 OF 02	A
MQ174-R1-DH-CI-2121	JUNCTION KERB RETURN ALIGNMENT SETTING-OUT SCHEDULE SHEET 02 OF 02	A
Project Code	GTC 626/2014	
Project	WATER SECURITY MEGA RESERVOIRS PACKAGE A PRPS 1 - UMM BIRKA	
Title	CIVIL DRAWING LIST SHEET 01 OF 04	
Drawing No.	MQ174-R1 - DH - GE - 0001	

ZIMMERMANN ISSUED FOR TENDER  
Rev. Date Revision Details Dra. Chkd/Repd  
Status TENDER  
Scales NTS Current Issue Signatures  
Original Size A1 Drawn W. HUNSEN  
Datum QNH0 Approver H. ALBRECHT  
Projection UTM - 39N Date MAR 2016  
Filename: MQ174-R1-DH-GE-0001.dwg  
Client KAHMARA BIRKA

KAHMARA BIRKA

Engineering Services Department - Water Security MEGA Reservoirs

Project Manager: Mr. H. ALBRECHT

Date: 01/03/2016

Page No.: 01/04

Page Total: 04/04

DRAWING NO.	DRAWING TITLE	REV NO.
SERIES 292-2435	ROUNDABOUT JUNCTION AND PAVED AREA FINISHED GRADING	A
M0174-R1-DH-C-1222	ROUNDABOUT JUNCTION AND PAVED AREA FINISHED GRADING KEY PLAN	A
M0174-R1-DH-C-1223	ROUNDABOUT JUNCTION AND PAVED AREA FINISHED GRADING SHEET 01 OF 12	A
M0174-R1-DH-C-1224	ROUNDABOUT JUNCTION AND PAVED AREA FINISHED GRADING SHEET 02 OF 12	A
M0174-R1-DH-C-1225	ROUNDABOUT JUNCTION AND PAVED AREA FINISHED GRADING SHEET 03 OF 12	A
M0174-R1-DH-C-1226	ROUNDABOUT JUNCTION AND PAVED AREA FINISHED GRADING SHEET 04 OF 12	A
M0174-R1-DH-C-1227	ROUNDABOUT JUNCTION AND PAVED AREA FINISHED GRADING SHEET 05 OF 12	A
M0174-R1-DH-C-1228	ROUNDABOUT JUNCTION AND PAVED AREA FINISHED GRADING SHEET 06 OF 12	A
M0174-R1-DH-C-1229	ROUNDABOUT JUNCTION AND PAVED AREA FINISHED GRADING SHEET 07 OF 12	A
M0174-R1-DH-C-1330	ROUNDABOUT JUNCTION AND PAVED AREA FINISHED GRADING SHEET 08 OF 12	A
M0174-R1-DH-C-1331	ROUNDABOUT JUNCTION AND PAVED AREA FINISHED GRADING SHEET 09 OF 12	A
M0174-R1-DH-C-1332	ROUNDABOUT JUNCTION AND PAVED AREA FINISHED GRADING SHEET 10 OF 12	A
M0174-R1-DH-C-1333	ROUNDABOUT JUNCTION AND PAVED AREA FINISHED GRADING SHEET 11 OF 12	A
M0174-R1-DH-C-1334	ROUNDABOUT JUNCTION AND PAVED AREA FINISHED GRADING SHEET 12 OF 12	A
M0174-R1-DH-C-1335	ROUNDABOUT JUNCTION AND PAVED AREA FINISHED GRADING SHEET 01 OF 13	A
SERIES 2156-2159	SIGNAGE AND MARKING	A
M0174-R1-DH-C-2336	KEY PLAN SIGNAGE AND MARKING	A
M0174-R1-DH-C-1337	SIGNAGE AND MARKING SHEET 01 OF 13	A
M0174-R1-DH-C-2338	SIGNAGE AND MARKING SHEET 02 OF 13	A
M0174-R1-DH-C-2339	SIGNAGE AND MARKING SHEET 03 OF 13	A
SERIES 2201-2229	ROAD PROFILES	A
M0174-R1-DH-C-2201	ROAD PROFILES SHEET 01 OF 20	A
M0174-R1-DH-C-2202	ROAD PROFILES SHEET 02 OF 20	A
M0174-R1-DH-C-2203	ROAD PROFILES SHEET 03 OF 20	A
M0174-R1-DH-C-2204	ROAD PROFILES SHEET 04 OF 20	A
M0174-R1-DH-C-2205	ROAD PROFILES SHEET 05 OF 20	A
M0174-R1-DH-C-2206	ROAD PROFILES SHEET 06 OF 20	A
M0174-R1-DH-C-2207	ROAD PROFILES SHEET 07 OF 20	A
M0174-R1-DH-C-2208	ROAD PROFILES SHEET 08 OF 20	A
M0174-R1-DH-C-2209	ROAD PROFILES SHEET 09 OF 20	A
M0174-R1-DH-C-2210	ROAD PROFILES SHEET 10 OF 20	A
M0174-R1-DH-C-2211	ROAD PROFILES SHEET 11 OF 20	A
M0174-R1-DH-C-2212	ROAD PROFILES SHEET 12 OF 20	A
M0174-R1-DH-C-2213	ROAD PROFILES SHEET 13 OF 20	A
M0174-R1-DH-C-2214	ROAD PROFILES SHEET 14 OF 20	A
M0174-R1-DH-C-2215	ROAD PROFILES SHEET 15 OF 20	A
M0174-R1-DH-C-2216	ROAD PROFILES SHEET 16 OF 20	A
M0174-R1-DH-C-2217	ROAD PROFILES SHEET 17 OF 20	A
M0174-R1-DH-C-2218	ROAD PROFILES SHEET 18 OF 20	A
M0174-R1-DH-C-2219	ROAD PROFILES SHEET 19 OF 20	A
M0174-R1-DH-C-2220	ROAD PROFILES SHEET 20 OF 20	A
SERIES 2301-2305	ROAD STANDARD DETAILS	A
M0174-R1-DH-C-2301	ROAD STANDARD DETAIL PLANS	A
M0174-R1-DH-C-2302	ROAD STANDARD DETAIL KERBS, CHANNELS AND PAVEMENT TYPES	A
M0174-R1-DH-C-2303	ROAD STANDARD DETAIL TRAFFIC SIGN MOUNTING	A
M0174-R1-DH-C-2304	ROAD STANDARD DETAIL ROAD MARKINGS AND TRAFFIC SIGNS	A
M0174-R1-DH-C-2305	ROAD STANDARD DETAIL PLANS	A
M0174-R1-DH-C-2306	Foul Sewage Key Plan, Layout Plans & Typical Details	A
M0174-R1-DH-C-2307	Foul Sewage Key Plan	A
M0174-R1-DH-C-2308	Foul Sewage Layout Plans Sheet 01 OF 18	A
M0174-R1-DH-C-3002	Foul Sewage Layout Plans Sheet 02 OF 18	A
M0174-R1-DH-C-3003	Foul Sewage Layout Plans Sheet 03 OF 18	A
M0174-R1-DH-C-3004	Foul Sewage Layout Plans Sheet 04 OF 18	A
M0174-R1-DH-C-3005	Foul Sewage Layout Plans Sheet 05 OF 18	A
M0174-R1-DH-C-3006	Foul Sewage Layout Plans Sheet 06 OF 18	A
M0174-R1-DH-C-3007 - 3018	NOT USED	A
M0174-R1-DH-C-3019	Foul Sewage Typical Details For Deep Manhole	A
M0174-R1-DH-C-3020	Foul Sewage Inspection Chamber Details	A
M0174-R1-DH-C-3021	Process Pipes Key Plan & Layout Plans	A
M0174-R1-DH-C-3022	NOT USED	A
M0174-R1-DH-C-3023	Foul Sewage Septic Tank Type C General Arrangement Details	A
M0174-R1-DH-C-3024	Foul Sewage Septic Tank Type C RC Details	A
M0174-R1-DH-C-3025	Foul Sewage Septic Tank Type A General Arrangement Details	A
M0174-R1-DH-C-3026	Foul Sewage Septic Tank Type A RC Details	A
M0174-R1-DH-C-3066	Process Pipes Key Plan	A
M0174-R1-DH-C-3051	NOT USED	A

DRAWING NO	DRAWING TITLE	REV NO
SERIES 305 - 306B	PROCESS PIPES KEY PLAN & LAYOUT PLANS	A
M0174-R-DH-Cl-3052	PROCESS PIPES LAYOUT PLANS SHEET 02 OF 18	A
M0174-R-DH-Cl-3053	PROCESS PIPES LAYOUT PLANS SHEET 03 OF 18	A
M0174-R-DH-Cl-3054	PROCESS PIPES LAYOUT PLANS SHEET 04 OF 18	A
M0174-R-DH-Cl-3055	PROCESS PIPES LAYOUT PLANS SHEET 05 OF 18	A
M0174-R-DH-Cl-3056	PROCESS PIPES LAYOUT PLANS SHEET 06 OF 18	A
M0174-R-DH-Cl-3057	PROCESS PIPES LAYOUT PLANS SHEET 07 OF 18	A
M0174-R-DH-Cl-3058	PROCESS PIPES LAYOUT PLANS SHEET 08 OF 18	A
M0174-R-DH-Cl-3059	PROCESS PIPES LAYOUT PLANS SHEET 09 OF 18	A
M0174-R-DH-Cl-3060	PROCESS PIPES LAYOUT PLANS SHEET 10 OF 18	A
M0174-R-DH-Cl-3061	PROCESS PIPES LAYOUT PLANS SHEET 11 OF 18	A
M0174-R-DH-Cl-3062	PROCESS PIPES LAYOUT PLANS SHEET 12 OF 18	A
M0174-R-DH-Cl-3063	PROCESS PIPES LAYOUT PLANS SHEET 13 OF 18	A
M0174-R-DH-Cl-3064	PROCESS PIPES LAYOUT PLANS SHEET 14 OF 18	A
M0174-R-DH-Cl-3065	PROCESS PIPES LAYOUT PLANS SHEET 15 OF 18	A
M0174-R-DH-Cl-3066	PROCESS PIPES LAYOUT PLANS SHEET 16 OF 18	A
M0174-R-DH-Cl-3067	PROCESS PIPES LAYOUT PLANS SHEET 17 OF 18	A
M0174-R-DH-Cl-3068	PROCESS PIPES LAYOUT PLANS SHEET 18 OF 18	A
SERIES 307 - 309S	POTABLE WATER SYSTEM KEY PLAN & LAYOUT PLANS	A
M0174-R-DH-Cl-3070	POTABLE WATER SYSTEM KEY PLAN	A
M0174-R-DH-Cl-3071	NOT USED	A
M0174-R-DH-Cl-3072	POTABLE WATER SYSTEM LAYOUT PLANS SHEET 02 OF 18	A
M0174-R-DH-Cl-3073	NOT USED	A
M0174-R-DH-Cl-3074	POTABLE WATER SYSTEM LAYOUT PLANS SHEET 04 OF 18	A
M0174-R-DH-Cl-3075	POTABLE WATER SYSTEM LAYOUT PLANS SHEET 05 OF 18	A
M0174-R-DH-Cl-3076	POTABLE WATER SYSTEM LAYOUT PLANS SHEET 06 OF 18	A
M0174-R-DH-Cl-3077 - 308B	POTABLE WATER SYSTEM TYPICAL ISOLATION VALVE CHAMBER FOR DN100 TYPE 1	A
M0174-R-DH-Cl-3089	POTABLE WATER SYSTEM TYPICAL ISOLATION VALVE CHAMBER FOR DN100 TYPE 2	A
M0174-R-DH-Cl-3090	POTABLE WATER SYSTEM TYPICAL ISOLATION VALVE CHAMBER FOR DN100 TYPE 3	A
M0174-R-DH-Cl-3091	POTABLE WATER SYSTEM TYPICAL ISOLATION VALVE CHAMBER FOR DN100 TYPE 4	A
M0174-R-DH-Cl-3092	POTABLE WATER SYSTEM TYPICAL ISOLATION VALVE CHAMBER FOR GI 50	A
M0174-R-DH-Cl-3093	POTABLE WATER SYSTEM TYPICAL AIR/WASHOUT CHAMBER DETAILS	A
M0174-R-DH-Cl-3094	POTABLE WATER SYSTEM TYPICAL WASHOUT CHAMBER DETAILS	A
M0174-R-DH-Cl-3095	IRRIGATION SYSTEM KEY PLAN LAYOUT PLANS & TYPICAL DETAILS	A
SERIES 310 - 312B	IRRIGATION SYSTEM KEY PLAN	A
M0174-R-DH-Cl-3100	IRRIGATION SYSTEM LAYOUT PLANS SHEET 01 OF 18	A
M0174-R-DH-Cl-3101	IRRIGATION SYSTEM LAYOUT PLANS SHEET 02 OF 18	A
M0174-R-DH-Cl-3102	IRRIGATION SYSTEM LAYOUT PLANS SHEET 03 OF 18	A
M0174-R-DH-Cl-3103	IRRIGATION SYSTEM MISCELLANEOUS INSTALLATIONS SHEET 01 OF 02	A
M0174-R-DH-Cl-3104	IRRIGATION SYSTEM MISCELLANEOUS INSTALLATIONS SHEET 02 OF 02	A
M0174-R-DH-Cl-3105	IRRIGATION SYSTEM LAYOUT PLANS SHEET 04 OF 18	A
M0174-R-DH-Cl-3106 - 311B	IRRIGATION SYSTEM LAYOUT PLANS SHEET 05 OF 18	A
M0174-R-DH-Cl-3119	IRRIGATION WORKS MARKER PLATE DETAILS PLAN & SECTIONS	A
M0174-R-DH-Cl-3120	NOT USED	A
M0174-R-DH-Cl-3121	IRRIGATION WORKS TYPICAL ISOLATION VALVE CHAMBER FOR DN100 TYPE 1	A
M0174-R-DH-Cl-3122	IRRIGATION WORKS TYPICAL ISOLATION VALVE CHAMBER FOR DN100 TYPE 2	A
M0174-R-DH-Cl-3123	IRRIGATION WORKS TYPICAL ISOLATION VALVE CHAMBER FOR DN100 TYPE 3	A
M0174-R-DH-Cl-3124	IRRIGATION WORKS TYPICAL ISOLATION VALVE CHAMBER FOR DN100 TYPE 4	A
M0174-R-DH-Cl-3125	IRRIGATION WORKS TYPICAL ISOLATION VALVE CHAMBER FOR DN100 TYPE 1	A
M0174-R-DH-Cl-3126	IRRIGATION WORKS TYPICAL ISOLATION VALVE CHAMBER FOR DN100 TYPE 2	A
M0174-R-DH-Cl-3127	IRRIGATION WORKS TYPICAL ISOLATION VALVE CHAMBER FOR DN100 TYPE 3	A
M0174-R-DH-Cl-3128	IRRIGATION WORKS TYPICAL ISOLATION VALVE CHAMBER FOR DN100 TYPE 4	A
SERIES 310 - 314	FIRE FIGHTING SYSTEM LAYOUT PLANS SHEET 01 OF 18	A
M0174-R-DH-Cl-3129	FIRE FIGHTING SYSTEM LAYOUT PLANS SHEET 02 OF 18	A
M0174-R-DH-Cl-3130	FIRE FIGHTING SYSTEM LAYOUT PLANS SHEET 03 OF 18	A
M0174-R-DH-Cl-3131	FIRE FIGHTING SYSTEM LAYOUT PLANS SHEET 04 OF 18	A
M0174-R-DH-Cl-3132	FIRE FIGHTING SYSTEM LAYOUT PLANS SHEET 05 OF 18	A
M0174-R-DH-Cl-3133	FIRE HYDRANT CHAMBER TYPE 1 ABOVE GROUND LEVEL FROM DIA 100mm - 300mm MAIN	A
M0174-R-DH-Cl-3134	FIRE HYDRANT CHAMBER TYPE 2 BELOW GROUND LEVEL FROM DIA 100mm - 300mm MAIN	A
M0174-R-DH-Cl-3135	FIRE HYDRANT STAKE MARKERS PLATE 1 AND PLATE 2	A
M0174-R-DH-Cl-3136 - 3137	FIRE HYDRANT TYPICAL ISOLATION VALVE CHAMBER FOR DN100	A
M0174-R-DH-Cl-3138	FIRE FIGHTING SYSTEM LAYOUT PLANS SHEET 06 OF 18	A
M0174-R-DH-Cl-3139	FIRE FIGHTING SYSTEM LAYOUT PLANS SHEET 07 OF 18	A
M0174-R-DH-Cl-3140 - 3148	NOT USED	A
M0174-R-DH-Cl-3149	FIRE HYDRANT CHAMBER TYPE 1 ABOVE GROUND LEVEL FROM DIA 100mm - 300mm MAIN	A
M0174-R-DH-Cl-3150	FIRE HYDRANT STAKE MARKERS PLATE 1 AND PLATE 2	A
M0174-R-DH-Cl-3152	FIRE HYDRANT TYPICAL ISOLATION VALVE CHAMBER FOR DN100	A

DRAWING NO.	DRAWING TITLE	REV NO.
M0174-R-DH-CI-3163	FIRE HYDRANT TYPICAL AIR VALVE CHAMBER DETAILS	A
M0174-R-DH-CI-3164	FIRE HYDRANT TYPICAL WASHOUT CHAMBER DETAILS	A
M0174-R-DH-CI-3165	STORM WATER REY PLAN	A
M0174-R-DH-CI-3161	STORM WATER LAYOUT PLANS SHEET 01 OF 18	A
M0174-R-DH-CI-3162	STORM WATER LAYOUT PLANS SHEET 02 OF 18	A
M0174-R-DH-CI-3163	STORM WATER LAYOUT PLANS SHEET 03 OF 18	A
M0174-R-DH-CI-3164	STORM WATER LAYOUT PLANS SHEET 04 OF 18	A
M0174-R-DH-CI-3165	STORM WATER LAYOUT PLANS SHEET 05 OF 18	A
M0174-R-DH-CI-3166	STORM WATER LAYOUT PLANS SHEET 06 OF 18	A
M0174-R-DH-CI-3167	STORM WATER LAYOUT PLANS SHEET 07 OF 18	A
M0174-R-DH-CI-3168	STORM WATER LAYOUT PLANS SHEET 08 OF 18	A
M0174-R-DH-CI-3169	STORM WATER LAYOUT PLANS SHEET 09 OF 18	A
M0174-R-DH-CI-3170	STORM WATER LAYOUT PLANS SHEET 10 OF 18	A
M0174-R-DH-CI-3171	STORM WATER LAYOUT PLANS SHEET 11 OF 18	A
M0174-R-DH-CI-3172	STORM WATER LAYOUT PLANS SHEET 12 OF 18	A
M0174-R-DH-CI-3173	STORM WATER LAYOUT PLANS SHEET 13 OF 18	A
M0174-R-DH-CI-3174	STORM WATER LAYOUT PLANS SHEET 14 OF 18	A
M0174-R-DH-CI-3175	STORM WATER LAYOUT PLANS SHEET 15 OF 18	A
M0174-R-DH-CI-3176	STORM WATER LAYOUT PLANS SHEET 16 OF 18	A
M0174-R-DH-CI-3177	STORM WATER LAYOUT PLANS SHEET 17 OF 18	A
M0174-R-DH-CI-3178	STORM WATER TYPICAL CATCH BASIN DETAILS [PIPE DIA 300 - 500]	A
M0174-R-DH-CI-3179	STORM WATER TYPICAL CATCH BASIN DETAILS [PIPE DIA 600 - 660]	A
M0174-R-DH-CI-3180	STORM WATER STANDARD MANHOLE DEPTH UP TO 9m	A
M0174-R-DH-CI-3181	STORM WATER TYPICAL FLUSH CATCH BASIN DETAILS [PIPE DIA 300 - 500]	A
M0174-R-DH-CI-3182	STORM WATER TYPICAL HIGH CAPACITY CATCH BASIN	A
M0174-R-DH-CI-3183	STORM WATER TYPICAL CATCH BASIN DEPTH UP TO 9m	A
M0174-R-DH-CI-3184	UNDER FLOOR DRAINAGE RESERVOIR No 1 LAYOUT PLANSHEET 01 OF 04	A
M0174-R-DH-CI-3185	UNDER FLOOR DRAINAGE RESERVOIR No 2 LAYOUT PLANSHEET 02 OF 04	A
SERIES 3200 - 3209	UNDER FLOOR DRAINAGE RESERVOIR No 3 LAYOUT PLANSHEET 03 OF 04	A
M0174-R-DH-CI-3200	UNDER FLOOR DRAINAGE RESERVOIR No 4 LAYOUT PLANSHEET 04 OF 04	A
M0174-R-DH-CI-3201	NOT USED	A
M0174-R-DH-CI-3202	UNDER FLOOR DRAINAGE RESERVOIR No 1 LAYOUT PLANSHEET 01 OF 04	A
M0174-R-DH-CI-3203	UNDER FLOOR DRAINAGE RESERVOIR No 2 LAYOUT PLANSHEET 02 OF 04	A
M0174-R-DH-CI-3204	UNDER FLOOR DRAINAGE RESERVOIR No 3 LAYOUT PLANSHEET 03 OF 04	A
M0174-R-DH-CI-3205	UNDER FLOOR DRAINAGE RESERVOIR No 4 LAYOUT PLANSHEET 04 OF 04	A
M0174-R-DH-CI-3208	UNDER FLOOR DRAINAGE DEEP MANHOLE TYPICAL DETAILS	A
M0174-R-DH-CI-3209	UNDER FLOOR DRAINAGE VERY DEEP MANHOLE TYPICAL DETAILS	A
SERIES 3250 - 3274	OVERFLOW AND FLOOD RELIEF CHANNEL KEY PLAN, LAYOUT PLAN AND SECTIONS	A
M0174-R-DH-CI-3254	OVERFLOW AND FLOOD RELIEF CHANNEL KEY PLAN	A
M0174-R-DH-CI-3251 - 3252	NOT USED	A
M0174-R-DH-CI-3253	OVERFLOW AND FLOOD RELIEF CHANNEL LAYOUT PLAN SHEET 03 OF 18	A
M0174-R-DH-CI-3254	OVERFLOW AND FLOOD RELIEF CHANNEL LAYOUT PLAN SHEET 04 OF 18	A
M0174-R-DH-CI-3255 - 3256	NOT USED	A
M0174-R-DH-CI-3257	OVERFLOW AND FLOOD RELIEF CHANNEL LAYOUT PLAN SHEET 07 OF 18	A
M0174-R-DH-CI-3258	OVERFLOW AND FLOOD RELIEF CHANNEL LAYOUT PLAN SHEET 08 OF 18	A
M0174-R-DH-CI-3259	OVERFLOW AND FLOOD RELIEF CHANNEL LAYOUT PLAN SHEET 09 OF 18	A
M0174-R-DH-CI-3260	OVERFLOW AND FLOOD RELIEF CHANNEL LAYOUT PLAN SHEET 10 OF 18	A
M0174-R-DH-CI-3261 - 3268	NOT USED	A
M0174-R-DH-CI-3269	OVERFLOW AND FLOOD RELIEF CHANNEL CROSS SECTION SHEET 01 OF 03	A
M0174-R-DH-CI-3270	OVERFLOW AND FLOOD RELIEF CHANNEL CROSS SECTION SHEET 02 OF 03	A
M0174-R-DH-CI-3271	OVERFLOW AND FLOOD RELIEF CHANNEL CROSS SECTION SHEET 03 OF 03	A
M0174-R-DH-CI-3272	OVERFLOW AND FLOOD RELIEF CHANNEL LAYOUT PLAN & SECTIONS SHEET 01 OF 03	A
M0174-R-DH-CI-3273	OVERFLOW AND FLOOD RELIEF CHANNEL LAYOUT PLAN & SECTIONS SHEET 02 OF 03	A
M0174-R-DH-CI-3274	OVERFLOW AND FLOOD RELIEF CHANNEL LAYOUT PLAN & SECTIONS SHEET 03 OF 03	A
SERIES 3300 - 3320	OVERINTERCEPTOR SYSTEM LAYOUT PLANSHEET 01 OF 03	A
M0174-R-DH-CI-3300	OVERINTERCEPTOR SYSTEM LAYOUT PLANSHEET 02 OF 03	A
M0174-R-DH-CI-3301	NOT USED	A
M0174-R-DH-CI-3302	OVERINTERCEPTOR SYSTEM LAYOUT PLANSHEET 02 OF 18	A
M0174-R-DH-CI-3303	OVERINTERCEPTOR SYSTEM LAYOUT PLANSHEET 03 OF 18	A
M0174-R-DH-CI-3304	OVERINTERCEPTOR SYSTEM LAYOUT PLANSHEET 04 OF 18	A
M0174-R-DH-CI-3305	OVERINTERCEPTOR SYSTEM LAYOUT PLANSHEET 05 OF 18	A
M0174-R-DH-CI-3306	OVERINTERCEPTOR SYSTEM LAYOUT PLANSHEET 06 OF 18	A
M0174-R-DH-CI-3307 - 3318	TYPICAL OIL INTERCEPTOR SYSTEM MANHOLE DETAILS	A
M0174-R-DH-CI-3319	TYPICAL OIL INTERCEPTOR SYSTEM MANHOLE DETAILS	A
M0174-R-DH-CI-3320	TYPICAL OIL INTERCEPTOR SYSTEM MANHOLE DETAILS	A

DRAWING NO.	DRAWING TITLE	REV. NO.
SERIES 6400 - 6226	RESERVOIRS CIVIL GENERAL ARRANGEMENT DRAWINGS	A
M0174-RH-DH-CI-6000	RESERVOIR No. 1 BASE PLAN DETAIL	A
M0174-RH-DH-CI-6001	RESERVOIR No. 1COP PLAN DETAIL	A
M0174-RH-DH-CI-6002	RESERVOIR No. 1SECTIONAL DETAILS SHEET 01 OF 02	A
M0174-RH-DH-CI-6003	RESERVOIR No. 2BASE PLAN DETAIL	A
M0174-RH-DH-CI-6004	RESERVOIR No. 2COP PLAN DETAIL	A
M0174-RH-DH-CI-6005	RESERVOIR No. 2SECTIONAL DETAILS SHEET 01 OF 02	A
M0174-RH-DH-CI-6006	RESERVOIR No. 2SECTIONAL DETAILS SHEET 02 OF 02	A
M0174-RH-DH-CI-6007	RESERVOIR No. 3BASE PLAN DETAIL	A
M0174-RH-DH-CI-6008	RESERVOIR No. 3COP PLAN DETAIL	A
M0174-RH-DH-CI-6009	RESERVOIR No. 3 & SECTIONAL DETAILS SHEET 01 OF 02	A
M0174-RH-DH-CI-6010	RESERVOIR No. 3 & SECTIONAL DETAILS SHEET 02 OF 02	A
M0174-RH-DH-CI-6011	RESERVOIR No. 3 & SECTIONAL DETAILS SHEET 02 OF 02	A
M0174-RH-DH-CI-6012	RESERVOIR No. 4, 6 & 7 BASE PLAN DETAIL	A
M0174-RH-DH-CI-6013	RESERVOIR No. 4, 6 & 7 BASE PLAN DETAIL	A
M0174-RH-DH-CI-6014	RESERVOIR No. 4, 6 & 7 SECTIONAL DETAILS SHEET 01 OF 02	A
M0174-RH-DH-CI-6015	RESERVOIR No. 4, 6 & 7 SECTIONAL DETAILS SHEET 02 OF 02	A
M0174-RH-DH-CI-6016 - 6019	NOT USED	
M0174-RH-DH-CI-6020	RESERVOIR No. 1& 2 DISTRIBUTION INLET CHAMBER PLAN & SECTIONS	A
M0174-RH-DH-CI-6021	RESERVOIR No. 1& 2 DISTRIBUTION BULLETIN CHAMBER PLAN & SECTIONS	A
M0174-RH-DH-CI-6022	RESERVOIR INLET CHAMBER PLAN & SECTIONS	A
M0174-RH-DH-CI-6023	RESERVOIR OUTLET & INLET CHAMBERS PLANS & SECTIONS SHEET 01 OF 03	A
M0174-RH-DH-CI-6024	RESERVOIR OUTLET & INLET CHAMBERS PLANS & SECTIONS SHEET 02 OF 03	A
M0174-RH-DH-CI-6025	RESERVOIR OUTLET & INLET CHAMBERS PLANS & SECTIONS SHEET 03 OF 03	A
M0174-RH-DH-CI-6026	RESERVOIR OUTLET & INLET CHAMBERS PLANS & SECTIONS	A
M0174-RH-DH-CI-6027	RESERVOIR DISTRIBUTION OVERFLOW CHAMBER PLAN & SECTIONS	A
M0174-RH-DH-CI-6028	RESERVOIR OVERFLOW CHAMBER PLAN & SECTIONS	A
M0174-RH-DH-CI-6029	RESERVOIR TYPICAL DRAWINGS	A
M0174-RH-DH-CI-6030	RESERVOIR TYPICAL UNDER FLOOR DRAINAGE PLAN	A
M0174-RH-DH-CI-6031	RESERVOIR TYPICAL ROOF DRAINAGE AND AIR VENT DETAILS	A
M0174-RH-DH-CI-6032	RESERVOIR OUTSIDE ACCESS STAIRCASE TYPICAL DETAILS	A
M0174-RH-DH-CI-6033	RESERVOIR TO DUE NORTH TOP ACCESS LADDER TYPICAL DETAILS	A
M0174-RH-DH-CI-6034	RESERVOIR TYPICAL UNDER EQUIPMENT ACCESS TYPICAL DETAILS	A
M0174-RH-DH-CI-6035	RESERVOIR SITE PLAN & ELEVATIONS	A
M0174-RH-DH-CI-6036	SITE PLAN	A
M0174-RH-DH-CI-6040	RESERVOIR ELEVATIONS SHEET 01 OF 03	A
M0174-RH-DH-CI-6041	RESERVOIR ELEVATIONS SHEET 02 OF 03	A
M0174-RH-DH-CI-6042	RESERVOIR ELEVATIONS SHEET 03 OF 03	A
M0174-RH-DH-CI-6043	MAIN PUMPING STATION	A
M0174-RH-DH-CI-6200	MAIN PUMPING STATION PLAN AT BASEMENT LEVEL	A
M0174-RH-DH-CI-6201	MAIN PUMPING STATION PLAN AT GROUND LEVEL	A
M0174-RH-DH-CI-6202	MAIN PUMPING STATION SECTIONS SHEET 01 OF 02	A
M0174-RH-DH-CI-6203	MAIN PUMPING STATION SECTIONS SHEET 02 OF 02	A
M0174-RH-DH-CI-6204	MAIN PUMPING STATION DRAIN PUMPING STATION DETAILS & SECTIONS	A
M0174-RH-DH-CI-6205	MAIN PUMPING STATION OVERHEAD GRATE DETAILS	A
M0174-RH-DH-CI-6206	MAIN PUMPING STATION PLATFORMS	A
M0174-RH-DH-CI-6207	MAIN PUMPING STATION PIPE SUPPORTS	A
M0174-RH-DH-CI-6214	MAIN PUMPING STATION STANDARD DETAILS	A
M0174-RH-DH-CI-6210	WELDING STANDARD DETAILS	A
M0174-RH-DH-CI-6211	STEEL STAIRCASE STANDARD DETAILS	A
M0174-RH-DH-CI-6212	STEEL LADDER STANDARD DETAILS	A
M0174-RH-DH-CI-6213	STEEL HANDRAILS STANDARD DETAILS	A
M0174-RH-DH-CI-6214	TYPICAL PIPE SUPPORT DETAILS	A
M0174-RH-DH-CI-6216	COMPRESSOR BUILDING	A
M0174-RH-DH-CI-6218	COMPRESSOR BUILDING SECTION A DETAILS	A
M0174-RH-DH-CI-6220	COMPRESSOR BUILDING SECTION B DETAILS	A
M0174-RH-DH-CI-6221	NOT USED	A
M0174-RH-DH-CI-6223	COMPRESSOR BUILDING SECTION C DETAILS	A
M0174-RH-DH-CI-6224	CUMBERSON BUILDING TANKS PLAN & SECTIONS	A
M0174-RH-DH-CI-6225	BULK FUEL STORAGE TANKS CENTRALIZED TANKA GENERATOR PLANS	A
M0174-RH-DH-CI-6320	BULK FUEL STORAGE TANKS CENTRALIZED TANKB GENERATOR PLANS	A
M0174-RH-DH-CI-6321	BULK FUEL STORAGE TANK 500' 1000' & 500 KVA GENERATORS 1, 2 & 3 PLANS	A
M0174-RH-DH-CI-6322	BULK FUEL STORAGE TANK 500' 1000' & 500 KVA GENERATORS 1, 2 & 3 SECTIONS SHEET 01 OF 02	A
M0174-RH-DH-CI-6323	BULK FUEL STORAGE TANK 500' 1000' & 500 KVA GENERATORS 1, 2 & 3 SECTIONS SHEET 02 OF 02	A

DRAWING No.	DRAWING TITLE	REV No.	DRAWING No.	DRAWING TITLE	REV No.
M0174-R1-DH-CI-6333	AUXILIARY PUMPING STATION	A	M0174-R1-DH-CI-6005	PIPE BEDDING DETAILS	A
M0174-R1-DH-CI-6330	AUXILIARY PUMPING STATION BASE PLATE	A	M0174-R1-DH-CI-8006	VERY DEEP MANHOLE COVER LANDING AND INTERMEDIATE SLABS RE DETAILS	A
M0174-R1-DH-CI-6331	AUXILIARY PUMPING STATION SECTIONS	A	M0174-R1-DH-CI-8007	TO BE ISSUED AT LATER STAGE	
M0174-R1-DH-CI-6332	AUXILIARY PUMPING STATION DOOR PLAN	A	M0174-R1-DH-CI-8008	TYPICAL TRENCH DETAILS FOR PW, IRR AND FF	A
M0174-R1-DH-CI-6333	AUXILIARY PUMPING STATION OPEN MESH FLOORING	A	M0174-R1-DH-CI-8009	TYPICAL DETAILS ROAD CROSSING FOR PW, IRR AND FF	A
M0174-R1-DH-CI-6341	SURGE VESSELS PLAN & SECTIONS	A	M0174-R1-DH-CI-8010	TYPICAL DETAILS WATER MAIN CROSSING FOR PW, AND FF SHEET 01 OF 02	A
M0174-R1-DH-CI-6310	SURGE VESSELS GENERAL ARRANGEMENT PLAN & SECTIONS SHEET 01 OF 02	A	M0174-R1-DH-CI-8011	TYPICAL DETAILS WATER MAIN CROSSING FOR PW, AND FF SHEET 02 OF 02	A
M0174-R1-DH-CI-6341	SURGE VESSELS TYPICAL GENERAL ARRANGEMENT PLAN & SECTIONS SHEET 02 OF 02	A	M0174-R1-DH-CI-8012	TYPICAL DETAILS WATER MAIN CROSSING FOR IRR	A
M0174-R1-DH-CI-6386	EMERGENCY TANKER FILLING PUMPING STATION	A	M0174-R1-DH-CI-8013	TYPICAL DETAILS FOR GRP LADDER WITH SAFETY CAGE FOR PW, IRR AND FF	A
M0174-R1-DH-CI-6380	EMERGENCY TANKER FILLING PUMPING STATION SECTION	A	M0174-R1-DH-CI-8014	TYPICAL TANKING DETAILS FOR PW, IRR AND FF	A
M0174-R1-DH-CI-6381	EMERGENCY TANKER FILLING PUMPING STATION SECTION	A	M0174-R1-DH-CI-8015	STEEL PIPE WORK PIPE JUNCT DETAILS ADJACENT TO STRUCTURE SHEET 01 OF 04	A
M0174-R1-DH-CI-6382	EMERGENCY TANKER FILLING PUMPING STATION SECTIONS	A	M0174-R1-DH-CI-8016	STEEL PIPE WORK PIPE JUNCT DETAILS ADJACENT TO STRUCTURE SHEET 02 OF 04	A
M0174-R1-DH-CI-6393	EMERGENCY TANKER FILLING STATION	A	M0174-R1-DH-CI-8017	STEEL PIPE WORK PIPE JUNCT DETAILS ADJACENT TO STRUCTURE SHEET 03 OF 04	A
M0174-R1-DH-CI-6390	EMERGENCY TANKER FILLING STATION GENERAL ARRANGEMENT PLAN	A	M0174-R1-DH-CI-8018	STEEL PIPE WORK PIPE JUNCT DETAILS ADJACENT TO STRUCTURE SHEET 04 OF 04	A
M0174-R1-DH-CI-6391	VALVE CHAMBER DNGO PIPE PLAN & SECTIONS	A	M0174-R1-DH-CI-9012	PLAN & PROFILES	
M0174-R1-DH-CI-6392	VALVE CHAMBER TYPE 1 DNGO PIPE PLAN & SECTIONS	A	M0174-R1-DH-CI-9006	DN100 CORRIDGE INCORPORATING MAIN PLAN & PROFILE SHEET 01 OF 02	A
M0174-R1-DH-CI-6393	VALVE CHAMBER TYPE 2 DNGO PIPE PLAN & SECTIONS	A	M0174-R1-DH-CI-9011	DN100 CORRIDGE INCORPORATING MAIN PLAN & PROFILE SHEET 02 OF 02	A
M0174-R1-DH-CI-6430	DRAINAGE LAGOONS No 1 & 2	A	M0174-R1-DH-CI-9012	DN1200 INLET RING MAIN PLAN & PROFILE SHEET 01 OF 03	A
M0174-R1-DH-CI-6431	DRAINAGE LAGOON NO 1 GENERAL ARRANGEMENT PLAN	A	M0174-R1-DH-CI-9013	DN1200 INLET RING MAIN PLAN & PROFILE SHEET 02 OF 03	A
M0174-R1-DH-CI-6432	DRAINAGE LAGOON NO 2 GENERAL ARRANGEMENT PLAN	A	M0174-R1-DH-CI-9014	DN1200 SUCCTION RING MAIN PLAN & PROFILE SHEET 03 OF 03	A
M0174-R1-DH-CI-6433	DRAINAGE LAGOON STANDBY GENERAL ARRANGEMENT PLAN	A	M0174-R1-DH-CI-9015	TRANSMISSION SUCTION RING MAIN PLAN & PROFILE SHEET 01 OF 02	A
M0174-R1-DH-CI-6434	DRAINAGE LAGOON NO 1 GENERAL ARRANGEMENT SECTIONS	A	M0174-R1-DH-CI-9016	TRANSMISSION SUCTION RING MAIN PLAN & PROFILE SHEET 02 OF 02	A
M0174-R1-DH-CI-6435	DRAINAGE LAGOON NO 2 GENERAL ARRANGEMENT SECTIONS	A	M0174-R1-DH-CI-9017	DN100 TRANSMISSION PIPE TO AUXILIARY PUMP STATION	A
M0174-R1-DH-CI-6444	UTILITY BUILDING	A	M0174-R1-DH-CI-9018	DN800 SCOUR PIPE PLAN & PROFILE SHEET 01 OF 03	A
M0174-R1-DH-CI-6446	UTILITY BUILDING GENERAL ARRANGEMENT	A	M0174-R1-DH-CI-9019	DN800 SCOUR PIPE PLAN & PROFILE SHEET 02 OF 03	A
M0174-R1-DH-CI-6447	UTILITY BUILDING SECTIONS SHEET 01 OF 04	A	M0174-R1-DH-CI-9111	DRAWDN DRAIN DOWN RETURN PLAN & PROFILE SHEET 01 OF 02	A
M0174-R1-DH-CI-6448	UTILITY BUILDING SECTIONS SHEET 02 OF 04	A	M0174-R1-DH-CI-9112	DRAWDN DRAIN DOWN RETURN PLAN & PROFILE SHEET 02 OF 02	A
M0174-R1-DH-CI-6449	UTILITY BUILDING SECTIONS SHEET 03 OF 04	A	M0174-R1-DH-CI-9113	DRAWDN RECYCULATION PIPE PLAN & PROFILE SHEET 01 OF 02	A
M0174-R1-DH-CI-6450	UTILITY BUILDING SECTIONS SHEET 04 OF 04	A	M0174-R1-DH-CI-9114	DRAWDN RECYCULATION PIPE PLAN & PROFILE SHEET 02 OF 02	A
M0174-R1-DH-CI-6520	VALVE CHAMBERS	A	M0174-R1-DH-CI-9115	OVERFLOW PIPE PLAN & PROFILE	A
M0174-R1-DH-CI-6521	INLEAVING BY-PASS VALVE CHAMBER TYPE 1 PLAN & SECTIONS	A	M0174-R1-DH-CI-9116	DRAWDN OUTGOING TRANSMISSION MAIN PLAN & PROFILE SHEET 01 OF 05	A
M0174-R1-DH-CI-6521	INLEAVING BY-PASS VALVE CHAMBER TYPE 1 PLAN & SECTIONS	A	M0174-R1-DH-CI-9117	DRAWDN OUTGOING TRANSMISSION MAIN PLAN & PROFILE SHEET 02 OF 05	A
M0174-R1-DH-CI-6522	INLEAVING FLOWMETER CHAMBER TYPE 1 PLAN & SECTIONS	A	M0174-R1-DH-CI-9118	DRAWDN OUTGOING TRANSMISSION MAIN PLAN & PROFILE SHEET 03 OF 05	A
M0174-R1-DH-CI-6523	INLEAVING FLOW CONTROL CHAMBER TYPE 1 PLAN & SECTIONS	A	M0174-R1-DH-CI-9119	DRAWDN OUTGOING TRANSMISSION MAIN PLAN & PROFILE SHEET 04 OF 05	A
M0174-R1-DH-CI-6524	VALVE CHAMBER TYPE 1 DN1200 PIPES PLAN & SECTIONS	A	M0174-R1-DH-CI-9120	DRAWDN OUTGOING TRANSMISSION MAIN PLAN & PROFILE SHEET 05 OF 05	A
M0174-R1-DH-CI-6525	VALVE CHAMBER TYPE 2 DN1200 PIPES PLAN & SECTIONS	A	M0174-R1-DH-CI-9121	DRAWDN TS LINE PLAN & PROFILE SHEET 01 OF 02	A
M0174-R1-DH-CI-6526	VALVE CHAMBER TYPE 2 DN1200 PIPES PLAN & SECTIONS	A	M0174-R1-DH-CI-9122	DRAWDN TS LINE PLAN & PROFILE SHEET 02 OF 02	A
M0174-R1-DH-CI-6527	FLOW METER CHAMBER TYPE 1 DN1200 PIPES PLAN & SECTIONS	A	M0174-R1-DH-CI-9123	ROAD LAYOUT DRAWINGS	
M0174-R1-DH-CI-6528	FLOW METER CHAMBER TYPE 2 DN1200 PIPES PLAN & SECTIONS	A	M0174-R1-DH-HW-0001	GENERAL DRAWINGS	
M0174-R1-DH-CI-6529	VALVE CHAMBER TYPE 3 DN1200 PIPES PLAN & SECTIONS	A	M0174-R1-DH-HW-0001	ROADS GENERAL NOTES & LEGENDS	
M0174-R1-DH-CI-6530	FLOW METER CHAMBER TYPE 3 DN1200 PIPES PLAN & SECTIONS	A	M0174-R1-DH-HW-0010	ROAD LAYOUT KEY PLAN AND PLAN & PROFILES	
M0174-R1-DH-CI-6531	FLOW CONTROL COMBINED VALVE CHAMBER TYPE 2 DN1200 PIPE	A	M0174-R1-DH-HW-1000	ROAD LAYOUT KEY PLAN	
M0174-R1-DH-CI-6532	VALVE CHAMBER TYPE 1 DN1200 PIPE PLAN & SECTIONS	A	M0174-R1-DH-HW-1001	ROAD LAYOUT PLAN & PROFILE SHEET 01 OF 10	
M0174-R1-DH-CI-6533	VALVE CHAMBER TYPE 2 DN1200 PIPE PLAN & SECTIONS	A	M0174-R1-DH-HW-1002	ROAD LAYOUT PLAN & PROFILE SHEET 02 OF 10	
M0174-R1-DH-CI-6534	VALVE CHAMBER TYPE 3 DN1200 PIPE PLAN & SECTIONS	A	M0174-R1-DH-HW-1003	ROAD LAYOUT PLAN & PROFILE SHEET 03 OF 10	
M0174-R1-DH-CI-6535	VALVE CHAMBER TYPE 3 DN1200 PIPE PLAN & SECTIONS	A	M0174-R1-DH-HW-1004	ROAD LAYOUT PLAN & PROFILE SHEET 04 OF 10	
M0174-R1-DH-CI-6536	VALVE CHAMBER TYPE 1 DN1200 PIPE PLAN & SECTIONS	A	M0174-R1-DH-HW-1005	ROAD LAYOUT PLAN & PROFILE SHEET 05 OF 10	
M0174-R1-DH-CI-6537	OUTGOING BY-PASS VALVE CHAMBER TYPE 1 PLAN & SECTIONS	A	M0174-R1-DH-HW-1006	ROAD LAYOUT PLAN & PROFILE SHEET 06 OF 10	
M0174-R1-DH-CI-6538	OUTGOING BY-PASS VALVE CHAMBER TYPE 2 PLAN & SECTIONS	A	M0174-R1-DH-HW-1007	ROAD LAYOUT PLAN & PROFILE SHEET 07 OF 10	
M0174-R1-DH-CI-6539	VALVE CHAMBER DN1200 PIPE PLAN & SECTIONS	A	M0174-R1-DH-HW-1008	ROAD LAYOUT PLAN & PROFILE SHEET 08 OF 10	
M0174-R1-DH-CI-6540	VALVE CHAMBER DN1200 PIPE PLAN & SECTIONS	A	M0174-R1-DH-HW-1009	ROAD LAYOUT PLAN & PROFILE SHEET 09 OF 10	
M0174-R1-DH-CI-6541	VALVE CHAMBER DN1200 PIPE PLAN & SECTIONS	A	M0174-R1-DH-HW-1010	ROAD LAYOUT PLAN & PROFILE SHEET 10 OF 10	
M0174-R1-DH-CI-6542	VALVE CHAMBER TYPE 1 DN1200 PIPE PLAN & SECTIONS	A	M0174-R1-DH-HW-1305	SIGNAGE AND MARKING KEY PLAN AND SHEET PLANS	
M0174-R1-DH-CI-6543	VALVE CHAMBER TYPE 2 DN1200 PIPE PLAN & SECTIONS	A	M0174-R1-DH-HW-1306	KEY PLAN AND MARKING	A
M0174-R1-DH-CI-6544	VALVE CHAMBER DN1200 PIPE PLAN & SECTIONS	A	M0174-R1-DH-HW-1301	SIGNAGE AND MARKING SHEET 01 & SHEET 02 OF 10	A
M0174-R1-DH-CI-6545	VALVE CHAMBER DN1200 PIPE PLAN & SECTIONS	A	M0174-R1-DH-HW-1302	SIGNAGE AND MARKING SHEET 03 & SHEET 04 OF 10	A
M0174-R1-DH-CI-6546	FLOW METER CHAMBER TYPE 3 DN1200 PIPE PLAN & SECTIONS	A	M0174-R1-DH-HW-1303	SIGNAGE AND MARKING SHEET 05 & SHEET 06 OF 10	A
M0174-R1-DH-CI-6547	OUTGOING COMBINED VALVE CHAMBER TYPE 2DN1200 & TWIN1200 PIPES PLAN & SECTIONS	A	M0174-R1-DH-HW-1304	SIGNAGE AND MARKING SHEET 07 & SHEET 08 OF 10	A
M0174-R1-DH-CI-6548	VALVE CHAMBER TYPE 1 DN1200 PIPE PLAN & SECTIONS	A	M0174-R1-DH-HW-1305	ROAD STANDARD DETAIL PAVEMENT JOINING DETAILS	
M0174-R1-DH-CI-6549	VALVE CHAMBER DN1200 PIPE PLAN & SECTIONS	A	M0174-R1-DH-HW-1401	ROAD STANDARD DETAIL PAVEMENT JOINING DETAILS	
M0174-R1-DH-CI-6550	VALVE CHAMBER TYPE 2 DN1200 PIPE PLAN & SECTIONS	A	M0174-R1-DH-HW-1402	ROAD STANDARD DETAIL TRAFFIC SIGN MOUNTING	
M0174-R1-DH-CI-6551	VALVE CHAMBER TYPE 3 DN1200 PIPE PLAN & SECTIONS	A	M0174-R1-DH-HW-1403	ROAD STANDARD DETAIL ROAD MARKINGS AND TRAFFIC SIGNS	
M0174-R1-DH-CI-6552	OUTGOING COMBINED VALVE CHAMBER CHAMBER PLAN & SECTIONS	A	M0174-R1-DH-HW-1404	CIVIL DRAWING LIST	
M0174-R1-DH-CI-6553	VALVE CHAMBER TYPE 1 DN1200 PIPE PLAN & SECTIONS	A	M0174-R1-DH-HW-1405	SHEET 04 OF 04	
M0174-R1-DH-CI-6554	VALVE CHAMBER DN1200 PIPE PLAN & SECTIONS	A	M0174-R1-DH-HW-1406	REV A	
M0174-R1-DH-CI-6555	VALVE CHAMBER TYPE 2 DN1200 PIPE PLAN & SECTIONS	A	M0174-R1-DH-HW-1407	REV B	
M0174-R1-DH-CI-6556	VALVE CHAMBER TYPE 3 DN1200 PIPE PLAN & SECTIONS	A	M0174-R1-DH-HW-1408	REV C	
M0174-R1-DH-CI-6557	OUTGOING BY-PASS VALVE CHAMBER TYPE 1 PLAN & SECTIONS	A	M0174-R1-DH-HW-1409	REV D	
M0174-R1-DH-CI-6558	OUTGOING BY-PASS VALVE CHAMBER TYPE 2 PLAN & SECTIONS	A	M0174-R1-DH-HW-1410	REV E	
M0174-R1-DH-CI-6559	VALVE CHAMBER DN1200 PIPE PLAN & SECTIONS	A	M0174-R1-DH-HW-1411	REV F	
M0174-R1-DH-CI-6560	VALVE CHAMBER TYPE 3 DN1200 PIPE PLAN & SECTIONS	A	M0174-R1-DH-HW-1412	REV G	
M0174-R1-DH-CI-6561	OUTGOING COMBINED VALVE CHAMBER TYPE 2DN1200 & TWIN1200 PIPES PLAN & SECTIONS	A	M0174-R1-DH-HW-1413	REV H	
M0174-R1-DH-CI-6562	VALVE CHAMBER TYPE 1 DN1200 PIPE PLAN & SECTIONS	A	M0174-R1-DH-HW-1414	REV I	
M0174-R1-DH-CI-6563	VALVE CHAMBER DN1200 PIPE PLAN & SECTIONS	A	M0174-R1-DH-HW-1415	REV J	
M0174-R1-DH-CI-6564	VALVE CHAMBER TYPE 2 DN1200 PIPE PLAN & SECTIONS	A	M0174-R1-DH-HW-1416	REV K	
M0174-R1-DH-CI-6565	VALVE CHAMBER TYPE 3 DN1200 PIPE PLAN & SECTIONS	A	M0174-R1-DH-HW-1417	REV L	
M0174-R1-DH-CI-6566	OUTGOING BY-PASS VALVE CHAMBER TYPE 1 PLAN & SECTIONS	A	M0174-R1-DH-HW-1418	REV M	
M0174-R1-DH-CI-6567	OUTGOING BY-PASS VALVE CHAMBER TYPE 2 PLAN & SECTIONS	A	M0174-R1-DH-HW-1419	REV N	
M0174-R1-DH-CI-6568	VALVE CHAMBER DN1200 PIPE PLAN & SECTIONS	A	M0174-R1-DH-HW-1420	REV O	
M0174-R1-DH-CI-6569	VALVE CHAMBER TYPE 3 DN1200 PIPE PLAN & SECTIONS	A	M0174-R1-DH-HW-1421	REV P	
M0174-R1-DH-CI-6570	VALVE CHAMBER TYPE 1 DN1200 PIPE PLAN & SECTIONS	A	M0174-R1-DH-HW-1422	REV Q	
M0174-R1-DH-CI-6571	VALVE CHAMBER DN1200 PIPE PLAN & SECTIONS	A	M0174-R1-DH-HW-1423	REV R	
M0174-R1-DH-CI-6572	VALVE CHAMBER TYPE 2 DN1200 PIPE PLAN & SECTIONS	A	M0174-R1-DH-HW-1424	REV S	
M0174-R1-DH-CI-6573	VALVE CHAMBER TYPE 3 DN1200 PIPE PLAN & SECTIONS	A	M0174-R1-DH-HW-1425	REV T	
M0174-R1-DH-CI-6574	OUTGOING COMBINED SAMPLING CHAMBER PLAN & SECTIONS	A	M0174-R1-DH-HW-1426	REV U	
M0174-R1-DH-CI-6575	VALVE CHAMBER DN1200 PIPE PLAN & SECTIONS	A	M0174-R1-DH-HW-1427	REV V	
M0174-R1-DH-CI-6576	VALVE CHAMBER TYPE 1 DN1200 PIPE PLAN & SECTIONS	A	M0174-R1-DH-HW-1428	REV W	
M0174-R1-DH-CI-6577	STANDARD DETAILS FOR GRP LADDER WITH SAFETY CAGE	A	M0174-R1-DH-HW-1429	REV X	
M0174-R1-DH-CI-6578	MANHOLE COVER INSPECTION DETAILS	A	M0174-R1-DH-HW-1430	REV Y	
M0174-R1-DH-CI-6579	SHALLOW AND DEEP COVER SLAB RE DETAILS	A	M0174-R1-DH-HW-1431	REV Z	
M0174-R1-DH-CI-6580	MANHOLE CONSTRUCTION DETAILS	A	M0174-R1-DH-HW-1432	REV A	
M0174-R1-DH-CI-6581	SHALLOW & DEEP COVER SLAB CONSTRUCTION DETAILS	A	M0174-R1-DH-HW-1433	REV B	
M0174-R1-DH-CI-6582	SHALLOW COVER SLAB CONSTRUCTION DETAILS	A	M0174-R1-DH-HW-1434	REV C	
M0174-R1-DH-CI-6583	DEEP COVER SLAB CONSTRUCTION DETAILS	A	M0174-R1-DH-HW-1435	REV D	
M0174-R1-DH-CI-6584	SHALLOW & DEEP COVER SLAB CONSTRUCTION DETAILS	A	M0174-R1-DH-HW-1436	REV E	
M0174-R1-DH-CI-6585	DEEP COVER SLAB CONSTRUCTION DETAILS	A	M0174-R1-DH-HW-1437	REV F	
M0174-R1-DH-CI-6586	SHALLOW & DEEP COVER SLAB CONSTRUCTION DETAILS	A	M0174-R1-DH-HW-1438	REV G	
M0174-R1-DH-CI-6587	DEEP COVER SLAB CONSTRUCTION DETAILS	A	M0174-R1-DH-HW-1439	REV H	
M0174-R1-DH-CI-6588	SHALLOW & DEEP COVER SLAB CONSTRUCTION DETAILS	A	M0174-R1-DH-HW-1440	REV I	
M0174-R1-DH-CI-6589	DEEP COVER SLAB CONSTRUCTION DETAILS	A	M0174-R1-DH-HW-1441	REV J	
M0174-R1-DH-CI-6590	SHALLOW & DEEP COVER SLAB CONSTRUCTION DETAILS	A	M0174-R1-DH-HW-1442	REV K	
M0174-R1-DH-CI-6591	DEEP COVER SLAB CONSTRUCTION DETAILS	A	M0174-R1-DH-HW-1443	REV L	
M0174-R1-DH-CI-6592	SHALLOW & DEEP COVER SLAB CONSTRUCTION DETAILS	A	M0174-R1-DH-HW-1444	REV M	
M0174-R1-DH-CI-6593	DEEP COVER SLAB CONSTRUCTION DETAILS	A	M0174-R1-DH-HW-1445	REV N	
M0174-R1-DH-CI-6594	SHALLOW & DEEP COVER SLAB CONSTRUCTION DETAILS	A	M0174-R1-DH-HW-1446	REV O	
M0174-R1-DH-CI-6595	DEEP COVER SLAB CONSTRUCTION DETAILS	A	M0174-R1-DH-HW-1447	REV P	
M0174-R1-DH-CI-6596	SHALLOW & DEEP COVER SLAB CONSTRUCTION DETAILS	A	M0174-R1-DH-HW-1448	REV Q	
M0174-R1-DH-CI-6597	DEEP COVER SLAB CONSTRUCTION DETAILS	A	M0174-R1-DH-HW-1449	REV R	
M0174-R1-DH-CI-6598	SHALLOW & DEEP COVER SLAB CONSTRUCTION DETAILS	A	M0174-R1-DH-HW-1450	REV S	
M0174-R1-DH-CI-6599	DEEP COVER SLAB CONSTRUCTION DETAILS	A	M0174-R1-DH-HW-1451	REV T	
M0174-R1-DH-CI-6600	SHALLOW & DEEP COVER SLAB CONSTRUCTION DETAILS	A	M0174-R1-DH-HW-1452	REV U	
M0174-R1-DH-CI-6601	DEEP COVER SLAB CONSTRUCTION DETAILS	A	M0174-R1-DH-HW-1453	REV V	
M0174-R1-DH-CI-6602	SHALLOW & DEEP COVER SLAB CONSTRUCTION DETAILS	A	M0174-R1-DH-HW-1454	REV W	
M0174-R1-DH-CI-6603	DEEP COVER SLAB CONSTRUCTION DETAILS	A	M0174-R1-DH-HW-1455	REV X	
M0174-R1-DH-CI-6604	SHALLOW & DEEP COVER SLAB CONSTRUCTION DETAILS	A	M0174-R1-DH-HW-1456	REV Y	
M0174-R1-DH-CI-6605	DEEP COVER SLAB CONSTRUCTION DETAILS	A	M0174-R1-DH-HW-1457	REV Z	
M0174-R1-DH-CI-6606	SHALLOW & DEEP COVER SLAB CONSTRUCTION DETAILS	A	M0174-R1-DH-HW-1458	REV A	
M0174-R1-DH-CI-6607	DEEP COVER SLAB CONSTRUCTION DETAILS	A	M0174-R1-DH-HW-1459	REV B	
M0174-R1-DH-CI-6608	SHALLOW & DEEP COVER SLAB CONSTRUCTION DETAILS	A	M0174-R1-DH-HW-1460	REV C	
M0174-R1-DH-CI-6609	DEEP COVER SLAB CONSTRUCTION DETAILS	A	M0174-R1-DH-HW-1461	REV D	
M0174-R1-DH-CI-6610	SHALLOW & DEEP COVER SLAB CONSTRUCTION DETAILS	A	M0174-R1-DH-HW-1462	REV E	
M0174-R1-DH-CI-6611	DEEP COVER SLAB CONSTRUCTION DETAILS	A	M0174-R1-DH-HW-1463	REV F	



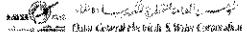






DRAWING No.	REV No	TITLE	DRAWING No.	TITLE	REV No
10174-R1-DH-GE-0020	A	SITE-ELECTRICAL DRAWING LIST SHEET 01 OF 02	10174-R1-DH-SE-3111	GW VOLTAGE RETICULATION LAYOUT - PART PLAN-11	A
10174-R1-DH-GE-0021	A	SITE-ELECTRICAL DRAWING LIST SHEET 02 OF 02	10174-R1-DH-SE-3112	GW VOLTAGE RETICULATION LAYOUT - PART PLAN-12	A
10174-R1-DH-SE-0001	A	ELECTRICAL SYSTEM DRAWING INDEX	10174-R1-DH-SE-3113	GW VOLTAGE RETICULATION LAYOUT - PART PLAN-13	A
10174-R1-DH-SE-0002	A	ELECTRICAL SYSTEM GENERAL NOTES, ABBREVIATIONS, LEGEND AND SYMBOLS	10174-R1-DH-SE-3114	GW VOLTAGE RETICULATION LAYOUT - PART PLAN-14	A
10174-R1-DH-SC-0002	A	TYPICAL DETAILS SHEET 1 OF 2	10174-R1-DH-SE-3115	GW VOLTAGE RETICULATION LAYOUT - PART PLAN-15	A
10174-R1-DH-SC-0003	A	TYPICAL DETAILS SHEET 2 OF 2	10174-R1-DH-SE-3116	GW VOLTAGE RETICULATION LAYOUT - PART PLAN-16	A
10174-R1-DH-SE-2100	A	MEDIUM VOLTAGE RETICULATION LAYOUT - KEY PLAN	10174-R1-DH-SE-3117	GW VOLTAGE RETICULATION LAYOUT - PART PLAN-17	A
10174-R1-DH-SE-2101	A	MEDIUM VOLTAGE RETICULATION LAYOUT - PART PLAN-1	10174-R1-DH-SE-3118	GW VOLTAGE RETICULATION LAYOUT - PART PLAN-18	A
10174-R1-DH-SE-2102	A	MEDIUM VOLTAGE RETICULATION LAYOUT - PART PLAN-2	10174-R1-DH-SE-3119	GW VOLTAGE RETICULATION LAYOUT - PART PLAN-19	A
10174-R1-DH-SE-2103	A	MEDIUM VOLTAGE RETICULATION LAYOUT - PART PLAN-3	10174-R1-DH-SE-3120	GW VOLTAGE RETICULATION LAYOUT - PART PLAN-20	A
10174-R1-DH-SE-2104	A	MEDIUM VOLTAGE RETICULATION LAYOUT - PART PLAN-4	10174-R1-DH-SE-3121	GW VOLTAGE RETICULATION LAYOUT - PART PLAN-21	A
10174-R1-DH-SE-2105	A	MEDIUM VOLTAGE RETICULATION LAYOUT - PART PLAN-5	10174-R1-DH-SE-3122	GW VOLTAGE RETICULATION LAYOUT - PART PLAN-22	A
10174-R1-DH-SE-2106	A	MEDIUM VOLTAGE RETICULATION LAYOUT - PART PLAN-6	10174-R1-DH-SE-3123	GW VOLTAGE RETICULATION LAYOUT - PART PLAN-23	A
10174-R1-DH-SE-2107	A	MEDIUM VOLTAGE RETICULATION LAYOUT - PART PLAN-7	10174-R1-DH-SE-3124	GW VOLTAGE RETICULATION LAYOUT - PART PLAN-24	A
10174-R1-DH-SE-2108	A	MEDIUM VOLTAGE RETICULATION LAYOUT - PART PLAN-8	10174-R1-DH-SE-3125	GW VOLTAGE RETICULATION LAYOUT - PART PLAN-25	A
10174-R1-DH-SE-2109	A	MEDIUM VOLTAGE RETICULATION LAYOUT - PART PLAN-9	10174-R1-DH-SE-3126	GW VOLTAGE RETICULATION LAYOUT - PART PLAN-26	A
10174-R1-DH-SE-2110	A	MEDIUM VOLTAGE RETICULATION LAYOUT - PART PLAN-10	10174-R1-DH-SE-3127	GW VOLTAGE RETICULATION LAYOUT - PART PLAN-27	A
10174-R1-DH-SE-2111	A	MEDIUM VOLTAGE RETICULATION LAYOUT - PART PLAN-11	10174-R1-DH-SE-3128	GW VOLTAGE RETICULATION LAYOUT - PART PLAN-28	A
10174-R1-DH-SE-2112	A	MEDIUM VOLTAGE RETICULATION LAYOUT - PART PLAN-12	10174-R1-DH-SE-3129	GW VOLTAGE RETICULATION LAYOUT - PART PLAN-29	A
10174-R1-DH-SE-2113	A	MEDIUM VOLTAGE RETICULATION LAYOUT - PART PLAN-13	10174-R1-DH-SE-3130	GW VOLTAGE RETICULATION LAYOUT - PART PLAN-30	A
10174-R1-DH-SE-2114	A	MEDIUM VOLTAGE RETICULATION LAYOUT - PART PLAN-14	10174-R1-DH-SE-3131	GW VOLTAGE RETICULATION LAYOUT - PART PLAN-31	A
10174-R1-DH-SE-2115	A	MEDIUM VOLTAGE RETICULATION LAYOUT - PART PLAN-15	10174-R1-DH-SE-3132	GW VOLTAGE RETICULATION LAYOUT - PART PLAN-32	A
10174-R1-DH-SE-2116	A	MEDIUM VOLTAGE RETICULATION LAYOUT - PART PLAN-16	10174-R1-DH-SE-3133	GW VOLTAGE RETICULATION LAYOUT - PART PLAN-33	A
10174-R1-DH-SE-2117	A	MEDIUM VOLTAGE RETICULATION LAYOUT - PART PLAN-17	10174-R1-DH-SE-3134	GW VOLTAGE RETICULATION LAYOUT - PART PLAN-34	A
10174-R1-DH-SE-2118	A	MEDIUM VOLTAGE RETICULATION LAYOUT - PART PLAN-18	10174-R1-DH-SE-3135	GW VOLTAGE RETICULATION LAYOUT - PART PLAN-35	A
10174-R1-DH-SE-2200	A	MEDIUM VOLTAGE SKELETON SCHEMATIC DIAGRAM - KEY PLAN	10174-R1-DH-SE-3136	GW VOLTAGE RETICULATION LAYOUT - PART PLAN-36	A
10174-R1-DH-SE-2201	A	MEDIUM VOLTAGE SKELETON SCHEMATIC DIAGRAM - SHEET 1 OF 6	10174-R1-DH-SE-3137	GW VOLTAGE RETICULATION LAYOUT - PART PLAN-37	A
10174-R1-DH-SE-2202	A	MEDIUM VOLTAGE SKELETON SCHEMATIC DIAGRAM - SHEET 2 OF 6	10174-R1-DH-SE-3138	GW VOLTAGE RETICULATION LAYOUT - PART PLAN-38	A
10174-R1-DH-SE-2203	A	MEDIUM VOLTAGE SKELETON SCHEMATIC DIAGRAM - SHEET 3 OF 6	10174-R1-DH-SE-3139	GW VOLTAGE RETICULATION LAYOUT - PART PLAN-39	A
10174-R1-DH-SE-2204	A	MEDIUM VOLTAGE SKELETON SCHEMATIC DIAGRAM - SHEET 4 OF 6	10174-R1-DH-SE-3140	GW VOLTAGE RETICULATION LAYOUT - PART PLAN-40	A
10174-R1-DH-SE-2205	A	MEDIUM VOLTAGE SKELETON SCHEMATIC DIAGRAM - SHEET 5 OF 6	10174-R1-DH-SE-3141	GW VOLTAGE RETICULATION LAYOUT - PART PLAN-41	A
10174-R1-DH-SE-2206	A	MEDIUM VOLTAGE SKELETON SCHEMATIC DIAGRAM - SHEET 6 OF 6	10174-R1-DH-SE-3142	GW VOLTAGE RETICULATION LAYOUT - PART PLAN-42	A
10174-R1-DH-SE-2300	A	MEDIUM VOLTAGE PROTECTION SCHEMATIC DIAGRAM - KEY PLAN	10174-R1-DH-SE-3143	DISTRIBUTION FEEDER PILAR SCHEMATIC DIAGRAM - SHEET 1 OF 8	A
10174-R1-DH-SE-2301	A	MEDIUM VOLTAGE PROTECTION SCHEMATIC DIAGRAM - SHEET 1 OF 10	10174-R1-DH-SE-3144	DISTRIBUTION FEEDER PILAR SCHEMATIC DIAGRAM - SHEET 2 OF 8	A
10174-R1-DH-SE-2302	A	MEDIUM VOLTAGE PROTECTION SCHEMATIC DIAGRAM - SHEET 2 OF 10	10174-R1-DH-SE-3145	DISTRIBUTION FEEDER PILAR SCHEMATIC DIAGRAM - SHEET 3 OF 8	A
10174-R1-DH-SE-2303	A	MEDIUM VOLTAGE PROTECTION SCHEMATIC DIAGRAM - SHEET 3 OF 10	10174-R1-DH-SE-3146	DISTRIBUTION FEEDER PILAR SCHEMATIC DIAGRAM - SHEET 4 OF 8	A
10174-R1-DH-SE-2304	A	MEDIUM VOLTAGE PROTECTION SCHEMATIC DIAGRAM - SHEET 4 OF 10	10174-R1-DH-SE-3147	DISTRIBUTION FEEDER PILAR SCHEMATIC DIAGRAM - SHEET 5 OF 8	A
10174-R1-DH-SE-2305	A	MEDIUM VOLTAGE PROTECTION SCHEMATIC DIAGRAM - SHEET 5 OF 10	10174-R1-DH-SE-3148	DISTRIBUTION FEEDER PILAR SCHEMATIC DIAGRAM - SHEET 6 OF 8	A
10174-R1-DH-SE-2306	A	MEDIUM VOLTAGE PROTECTION SCHEMATIC DIAGRAM - SHEET 6 OF 10	10174-R1-DH-SE-3149	DISTRIBUTION FEEDER PILAR SCHEMATIC DIAGRAM - SHEET 7 OF 8	A
10174-R1-DH-SE-2307	A	MEDIUM VOLTAGE PROTECTION SCHEMATIC DIAGRAM - SHEET 7 OF 10	10174-R1-DH-SE-3150	DISTRIBUTION FEEDER PILAR SCHEMATIC DIAGRAM - SHEET 8 OF 8	A
10174-R1-DH-SE-2308	A	MEDIUM VOLTAGE PROTECTION SCHEMATIC DIAGRAM - SHEET 8 OF 10	10174-R1-DH-SE-3151	WIDE SECURITY LAYOUT - KEY PLAN	A
10174-R1-DH-SE-2309	A	MEDIUM VOLTAGE PROTECTION SCHEMATIC DIAGRAM - SHEET 9 OF 10	10174-R1-DH-SE-3152	WIDE SECURITY LAYOUT - PART PLAN-1	A
10174-R1-DH-SE-2310	A	MEDIUM VOLTAGE PROTECTION SCHEMATIC DIAGRAM - SHEET 10 OF 10	10174-R1-DH-SE-3153	WIDE SECURITY LAYOUT - PART PLAN-2	A
10174-R1-DH-SE-2311	A	TRANSFORMER PROTECTION SCHEME	10174-R1-DH-SE-3154	WIDE SECURITY LAYOUT - PART PLAN-3	A
10174-R1-DH-SE-2312	A	GENERATOR INCOMER PROTECTION SCHEME	10174-R1-DH-SE-3155	WIDE SECURITY LAYOUT - PART PLAN-4	A
10174-R1-DH-SE-2401	A	MEDIUM VOLTAGE AC/DC CONTROL SOURCE DIAGRAM PART 1	10174-R1-DH-SE-3156	WIDE SECURITY LAYOUT - PART PLAN-5	A
10174-R1-DH-SE-2402	A	MEDIUM VOLTAGE AC/DC CONTROL SOURCE DIAGRAM PART 2	10174-R1-DH-SE-3157	WIDE SECURITY LAYOUT - PART PLAN-6	A
10174-R1-DH-SE-3100	A	LOW VOLTAGE RETICULATION LAYOUT - KEY PLAN	10174-R1-DH-SE-3158	WIDE SECURITY LAYOUT - PART PLAN-7	A
10174-R1-DH-SE-3101	A	LOW VOLTAGE RETICULATION LAYOUT - PART PLAN-1	10174-R1-DH-SE-3159	WIDE SECURITY LAYOUT - PART PLAN-8	A
10174-R1-DH-SE-3102	A	LOW VOLTAGE RETICULATION LAYOUT - PART PLAN-2	10174-R1-DH-SE-3160	WIDE SECURITY LAYOUT - PART PLAN-9	A
10174-R1-DH-SE-3103	A	LOW VOLTAGE RETICULATION LAYOUT - PART PLAN-3	10174-R1-DH-SE-3161	WIDE SECURITY LAYOUT - PART PLAN-10	A
10174-R1-DH-SE-3104	A	LOW VOLTAGE RETICULATION LAYOUT - PART PLAN-4	10174-R1-DH-SE-3162	WIDE SECURITY LAYOUT - PART PLAN-11	A
10174-R1-DH-SE-3105	A	LOW VOLTAGE RETICULATION LAYOUT - PART PLAN-5	10174-R1-DH-SE-3163	WIDE SECURITY LAYOUT - PART PLAN-12	A
10174-R1-DH-SE-3106	A	LOW VOLTAGE RETICULATION LAYOUT - PART PLAN-6	10174-R1-DH-SE-3164	WIDE SECURITY LAYOUT - PART PLAN-13	A
10174-R1-DH-SE-3107	A	LOW VOLTAGE RETICULATION LAYOUT - PART PLAN-7	10174-R1-DH-SE-3165	WIDE SECURITY LAYOUT - PART PLAN-14	A
10174-R1-DH-SE-3108	A	LOW VOLTAGE RETICULATION LAYOUT - PART PLAN-8	10174-R1-DH-SE-3166	WIDE SECURITY LAYOUT - PART PLAN-15	A
10174-R1-DH-SE-3109	A	LOW VOLTAGE RETICULATION LAYOUT - PART PLAN-9	10174-R1-DH-SE-3167	WIDE SECURITY LAYOUT - PART PLAN-16	A
10174-R1-DH-SE-3110	A	LOW VOLTAGE RETICULATION LAYOUT - PART PLAN-10	10174-R1-DH-SE-3168	WIDE SECURITY LAYOUT - PART PLAN-17	A
10174-R1-DH-SE-3111	A	LOW VOLTAGE RETICULATION LAYOUT - PART PLAN-18	10174-R1-DH-SE-3169	WIDE SECURITY LAYOUT - PART PLAN-19	A
Project No.: GTC 626/2014					
Title: SITE - ELECTRICAL DRAWING LIST SHEET 01 OF 02					
Drawing No.: MQ174-R1-DH-SE-3100					
Drawing No.: 10174-R1-DH-SE-3100					
Title: SITE - WATER SECURITY MEGA RESERVOIRS PACKAGE A PRPS 1 - UMM BIRKA					
Drawing No.: 10174-R1-DH-SE-3100					
Title: SITE - ELECTRICAL DRAWING LIST SHEET 01 OF 02					
Drawing No.: MQ174-R1-DH-SE-3100					

DRAWING NO.	TITLE	REV No.
HQ174-R1-DH-SE-7001	SITE WIDE LOAD SCHEDULE SHEET 1 OF 3	A
HQ174-R1-DH-SE-7002	SITE WIDE LOAD SCHEDULE SHEET 2 OF 3	A
HQ174-R1-DH-SE-7003	SITE WIDE LOAD SCHEDULE SHEET 3 OF 3	A
HQ174-R1-DH-SE-7101	HV/GENERATOR BUILDING SUBSTATION	A
HQ174-R1-DH-SE-7102	REMOTE SUBSTATION (RS-1 & RS-2)	A
HQ174-R1-DH-SE-7103	REMOTE SUBSTATION (RS-3 & RS-4)	A
HQ174-R1-DH-SE-7104	REMOTE GENERATOR SET STATION-1 (RG-1)	A
HQ174-R1-DH-SE-7105	SUBSTATION SECTION DETAILS (RS-1 & RS-2)	A
HQ174-R1-DH-SE-7106	SUBSTATION SECTION DETAILS (RS-3 & RS-4)	A
HQ174-R1-DH-SE-7107	SUBSTATION SECTION DETAILS 1 (RG-1)	A
HQ174-R1-DH-SE-7108	SUBSTATION SECTION DETAILS 2 (RG-1)	A
HQ174-R1-DH-SE-7201	SITE WIDE ROAD CROSSING DUCTS TYPICAL DETAILS	A
HQ174-R1-DH-SE-7202	SITE WIDE 11KV DIRECTLY BURIED CABLE TRENCH TYPICAL DETAILS	A
HQ174-R1-DH-SE-7203	SITE WIDE LIGHT FITTING SCHEDULE	A
HQ174-R1-DH-SE-7204	SITE WIDE LIGHTING TYPICAL DETAILS - PART 1	A
HQ174-R1-DH-SE-7205	SITE WIDE LIGHTING TYPICAL DETAILS - PART 2	A
HQ174-R1-DH-SE-7206	SITE WIDE FEEDER PILLAR TYPICAL DETAILS	A
HQ174-R1-DH-SE-7207	SITE WIDE SECURITY SYSTEM TYPICAL DETAILS	A
HQ174-R1-DH-SE-7301	SITE WIDE RESERVOIR NO.1 ROOF LEVEL POWER & CONTAINMENT LAYOUT	A
HQ174-R1-DH-SE-7302	SITE WIDE RESERVOIR NO. 3, 5, & 7 ROOF LEVEL POWER & CONTAINMENT LAYOUT	A
HQ174-R1-DH-SE-7303	SITE WIDE RESERVOIR NO.1 ROOF LEVEL LIGHTNING PROTECTION LAYOUT	A
HQ174-R1-DH-SE-7304	SITE WIDE RESERVOIR NO. 3, 5, & 7 ROOF LEVEL LIGHTNING PROTECTION LAYOUT	A
HQ174-R1-DH-SE-7305	SITE WIDE RESERVOIR NO.1 ROOF LEVEL SECURITY LAYOUT	A
HQ174-R1-DH-SE-7306	SITE WIDE RESERVOIR NO. 3, 5, & 7 ROOF LEVEL SECURITY LAYOUT	A

A. DRAWING	ISSUED FOR TENDER	BS	ML	AN
Rev. Date	Revision Details	Drawn	Check	Appd
Status				
TENDER				
Scale	E300 (A1) E600 (A3)	Current Issue Signature		
Original Size	A1	Drawn	B.SANTOS	
Date	04/04	Checker	M.LINGAD	
Project	UTM - 39N	Approved	A.HARRIS	
File Name	GTC 626/2014			
Client	 <b>Qatari General Electricity &amp; Water Corporation</b>			
Project Code	GTC 626/2014			
Project	WATER SECURITY MEGA RESERVOIRS PACKAGE A PRPS 1 - UMM BIRKA			
Title	SITE - ELECTRICAL DRAWING LIST SHEET 02 OF 02			
Drawing No.	HQ174-R1-DH-GE-0021			No.
				A



Title						
Drawing No.	Rev No.	Drawing No.	Title	REV No.	REV No.	REV No.
MO174-R-1-DH-BP-6520	A	MO174-R-1-DH-BF-2912	MV & GENERATOR GROUND FLOOR FIRE PROTECTION LAYOUT - SHEET 1 OF 2	A	A	A
MO174-R-1-DH-BP-6581	A	MO174-R-1-DH-BF-3510	CHLORINATION GROUND FLOOR FIRE PROTECTION LAYOUT	A	A	A
MO174-R-1-DH-BP-6582	A	MO174-R-1-DH-BF-3510	AUXILIARY PUMP STATION UNDERGROUND LEVEL FIRE PROTECTION LAYOUT	A	A	A
MO174-R-1-DH-BP-6583	A	MO174-R-1-DH-BF-4011	AUXILIARY PUMP STATION GROUND FLOOR FIRE PROTECTION LAYOUT	A	A	A
MO174-R-1-DH-BP-7010	A	MO174-R-1-DH-BF-4110	AUXILIARY PUMP STATION UNDERGROUND LEVEL FIRE PROTECTION LAYOUT	A	A	A
MO174-R-1-DH-BP-7020	A	MO174-R-1-DH-BF-4111	AUXILIARY PUMP STATION GROUND FLOOR FIRE PROTECTION LAYOUT	A	A	A
MO174-R-1-DH-BP-7021	A	MO174-R-1-DH-BF-4110	UTILITY PUMPING STATION AND TANKS GROUND FLOOR FIRE PROTECTION LAYOUT	A	A	A
MO174-R-1-DH-BP-7510	A	MO174-R-1-DH-BF-4211	UTILITY PUMPING STATION AND TANKS ROOF LEVEL FIRE PROTECTION LAYOUT	A	A	A
MO174-R-1-DH-BP-7511	A	MO174-R-1-DH-BF-5510	GUARD HOUSE GROUND FLOOR FIRE PROTECTION LAYOUT	A	A	A
MO174-R-1-DH-BP-7520	A	MO174-R-1-DH-BF-6010	MAINTENANCE CLEANERS & WORKSHOP GROUND FLOOR FIRE PROTECTION LAYOUT	A	A	A
MO174-R-1-DH-BP-7521	A	MO174-R-1-DH-BF-6510	MATERIAL TESTING FACILITY GROUND FLOOR FIRE PROTECTION LAYOUT	A	A	A
MO174-R-1-DH-BP-7610	A	MO174-R-1-DH-BF-7610	REMOTE SUB-STATION 3&4 GROUND FLOOR FIRE PROTECTION LAYOUT	A	A	A
MO174-R-1-DH-BP-7611	A	MO174-R-1-DH-BF-8010	REMOTE GENERATOR 1 GROUND FLOOR FIRE PROTECTION LAYOUT	A	A	A
MO174-R-1-DH-BP-8020	A	MO174-R-1-DH-BF-8010	AIR COMPRESSOR BUILDING GROUND FLOOR FIRE PROTECTION LAYOUT	A	A	A
MO174-R-1-DH-BP-8021	A	MO174-R-1-DH-BF-8510	WATER QUALITY MONITORING GROUND FLOOR FIRE PROTECTION LAYOUT	A	A	A
MO174-R-1-DH-BP-8510	A	MO174-R-1-DH-BF-9510	TISSUE KIOSK BUILDING GROUND FLOOR FIRE PROTECTION LAYOUT	A	A	A
MO174-R-1-DH-BP-9511	A	MO174-R-1-DH-BF-9511	GENERAL NOTES	A	A	A
MO174-R-1-DH-BP-9512	A	MO174-R-1-DH-BM-0002	MECHANICAL LEGEND AND SYMBOLS	A	A	A
MO174-R-1-DH-BP-9513	A	MO174-R-1-DH-BH-0011	TISSUE KIOSK BUILDING ROOF LEVEL DRAINAGE LAYOUT	A	A	A
MO174-R-1-DH-BP-9514	A	MO174-R-1-DH-BH-0102	AIR COMPRESSOR BUILDING ROOF LEVEL DRAINAGE LAYOUT	A	A	A
MO174-R-1-DH-BP-9515	A	MO174-R-1-DH-BH-0103	AIR COMPRESSOR BUILDING GROUND FLOOR WATER LAYOUT	A	A	A
MO174-R-1-DH-BP-9516	A	MO174-R-1-DH-BH-0104	AIR COMPRESSOR BUILDING ROOF LEVEL WATER LAYOUT	A	A	A
MO174-R-1-DH-BP-9517	A	MO174-R-1-DH-BH-0105	REMOTE SUB-STATION 1&2 GROUND FLOOR FIRE PROTECTION LAYOUT	A	A	A
MO174-R-1-DH-BP-9518	A	MO174-R-1-DH-BH-0106	TISSUE KIOSK BUILDING GROUND FLOOR DRAINAGE LAYOUT	A	A	A
MO174-R-1-DH-BP-9519	A	MO174-R-1-DH-BH-0107	AIR COMPRESSOR BUILDING GROUND FLOOR DRAINAGE LAYOUT	A	A	A
MO174-R-1-DH-BP-9520	A	MO174-R-1-DH-BH-0108	AIR COMPRESSOR BUILDING ROOF LEVEL DRAINAGE LAYOUT	A	A	A
MO174-R-1-DH-BP-9521	A	MO174-R-1-DH-BH-0109	AIR COMPRESSOR BUILDING GROUND FLOOR WATER LAYOUT	A	A	A
MO174-R-1-DH-BP-9522	A	MO174-R-1-DH-BH-0110	AIR COMPRESSOR BUILDING ROOF LEVEL WATER LAYOUT	A	A	A
MO174-R-1-DH-BP-9523	A	MO174-R-1-DH-BH-0111	WATER QUALITY MONITORING GROUND FLOOR DRAINAGE LAYOUT	A	A	A
MO174-R-1-DH-BP-9524	A	MO174-R-1-DH-BH-0112	WATER QUALITY MONITORING ROOF LEVEL DRAINAGE LAYOUT	A	A	A
MO174-R-1-DH-BP-9525	A	MO174-R-1-DH-BH-0113	TISSUE KIOSK BUILDING GROUND FLOOR DRAINAGE LAYOUT	A	A	A
MO174-R-1-DH-BP-9526	A	MO174-R-1-DH-BH-0114	TISSUE KIOSK BUILDING ROOF LEVEL DRAINAGE LAYOUT	A	A	A
MO174-R-1-DH-BP-9527	A	MO174-R-1-DH-BH-0115	MAIN PUMP STATION BUILDING BASEMENT FIRE PROTECTION LAYOUT KEYPLAN	A	A	A
MO174-R-1-DH-BP-9528	A	MO174-R-1-DH-BH-0116	MAIN PUMP STATION BUILDING BASEMENT FIRE PROTECTION LAYOUT - SHEET 1 OF 6	A	A	A
MO174-R-1-DH-BP-9529	A	MO174-R-1-DH-BH-0117	MAIN PUMP STATION BUILDING BASEMENT FIRE PROTECTION LAYOUT - SHEET 2 OF 6	A	A	A
MO174-R-1-DH-BP-9530	A	MO174-R-1-DH-BH-0118	MAIN PUMP STATION BUILDING BASEMENT FIRE PROTECTION LAYOUT - SHEET 3 OF 6	A	A	A
MO174-R-1-DH-BP-9531	A	MO174-R-1-DH-BH-0119	MAIN PUMP STATION BUILDING BASEMENT FIRE PROTECTION LAYOUT - SHEET 4 OF 6	A	A	A
MO174-R-1-DH-BP-9532	A	MO174-R-1-DH-BH-0120	MAIN PUMP STATION BUILDING BASEMENT FIRE PROTECTION LAYOUT - SHEET 5 OF 6	A	A	A
MO174-R-1-DH-BP-9533	A	MO174-R-1-DH-BH-0121	MAIN PUMP STATION BUILDING BASEMENT FIRE PROTECTION LAYOUT - SHEET 6 OF 6	A	A	A
MO174-R-1-DH-BP-9534	A	MO174-R-1-DH-BH-0122	MAIN PUMP STATION BUILDING GROUND FLOOR FIRE PROTECTION LAYOUT - SHEET 1 OF 6	A	A	A
MO174-R-1-DH-BP-9535	A	MO174-R-1-DH-BH-0123	MAIN PUMP STATION BUILDING GROUND FLOOR FIRE PROTECTION LAYOUT - SHEET 2 OF 6	A	A	A
MO174-R-1-DH-BP-9536	A	MO174-R-1-DH-BH-0124	MAIN PUMP STATION BUILDING GROUND FLOOR FIRE PROTECTION LAYOUT - SHEET 3 OF 6	A	A	A
MO174-R-1-DH-BP-9537	A	MO174-R-1-DH-BH-0125	MAIN PUMP STATION BUILDING GROUND FLOOR FIRE PROTECTION LAYOUT - SHEET 4 OF 6	A	A	A
MO174-R-1-DH-BP-9538	A	MO174-R-1-DH-BH-0126	MAIN PUMP STATION BUILDING GROUND FLOOR FIRE PROTECTION LAYOUT - SHEET 5 OF 6	A	A	A
MO174-R-1-DH-BP-9539	A	MO174-R-1-DH-BH-0127	MAIN PUMP STATION BUILDING GROUND FLOOR FIRE PROTECTION LAYOUT - SHEET 6 OF 6	A	A	A
MO174-R-1-DH-BP-9540	A	MO174-R-1-DH-BH-0128	MAIN PUMP STATION BUILDING GROUND FLOOR FIRE PROTECTION LAYOUT - SHEET 1 OF 6	A	A	A
MO174-R-1-DH-BP-9541	A	MO174-R-1-DH-BH-0129	MAIN PUMP STATION BUILDING GROUND FLOOR FIRE PROTECTION LAYOUT - SHEET 2 OF 6	A	A	A
MO174-R-1-DH-BP-9542	A	MO174-R-1-DH-BH-0130	MAIN PUMP STATION BUILDING GROUND FLOOR FIRE PROTECTION LAYOUT - SHEET 3 OF 6	A	A	A
MO174-R-1-DH-BP-9543	A	MO174-R-1-DH-BH-0131	MAIN PUMP STATION BUILDING GROUND FLOOR FIRE PROTECTION LAYOUT - SHEET 4 OF 6	A	A	A
MO174-R-1-DH-BP-9544	A	MO174-R-1-DH-BH-0132	MAIN PUMP STATION BUILDING GROUND FLOOR FIRE PROTECTION LAYOUT - SHEET 5 OF 6	A	A	A
MO174-R-1-DH-BP-9545	A	MO174-R-1-DH-BH-0133	MAIN PUMP STATION BUILDING GROUND FLOOR FIRE PROTECTION LAYOUT - SHEET 6 OF 6	A	A	A
MO174-R-1-DH-BP-9546	A	MO174-R-1-DH-BH-0134	MAIN GUARD HOUSE GROUND FLOOR FIRE PROTECTION LAYOUT	A	A	A
MO174-R-1-DH-BP-9547	A	MO174-R-1-DH-BP-2010	MV & GENERATOR GROUND FLOOR FIRE PROTECTION LAYOUT	A	A	A
MO174-R-1-DH-BP-9548	A	MO174-R-1-DH-BP-2510	MV & GENERATOR GROUND FLOOR FIRE PROTECTION LAYOUT	A	A	A
MO174-R-1-DH-BP-9549	A	MO174-R-1-DH-BP-3511	MV & GENERATOR GROUND FLOOR FIRE PROTECTION LAYOUT	A	A	A

DRAWING No.	TITLE	REV No.	DRAWING No.	TITLE	REV No.
MQ174-R1-DH-BM-1313	MAIN PUMP STATION BUILDING LOWER ROOF AC & VENTILATION LAYOUT - SHEET 3 OF 6	A	MQ174-R1-DH-BM-2591	MV & GENERATOR MECHANICAL EQUIPMENT SCHEDULES	A
MQ174-R1-DH-BM-1314	MAIN PUMP STATION BUILDING LOWER ROOF AC & VENTILATION LAYOUT - SHEET 4 OF 6	A	MQ174-R1-DH-BM-3510	CHLORINATION BUILDING GROUND FLOOR AC & VENTILATION LAYOUT	A
MQ174-R1-DH-BM-1315	MAIN PUMP STATION BUILDING LOWER ROOF AC & VENTILATION LAYOUT - SHEET 5 OF 6	A	MQ174-R1-DH-BM-3511	CHLORINATION BUILDING ROOF LEVEL AC & VENTILATION LAYOUT	A
MQ174-R1-DH-BM-1316	MAIN PUMP STATION BUILDING LOWER ROOF AC & VENTILATION LAYOUT - SHEET 6 OF 6	A	MQ174-R1-DH-BM-3591	CHLORINATION BUILDING HOUSE MECHANICAL EQUIPMENT SCHEDULES	A
MQ174-R1-DH-BM-1410	MAIN PUMP STATION BUILDING UPPER ROOF AC & VENTILATION LAYOUT KEYPLAN	A	MQ174-R1-DH-BM-4010	AUXILIARY PUMP STATION UNDERGROUND LEVEL AC & VENTILATION LAYOUT	A
MQ174-R1-DH-BM-1411	MAIN PUMP STATION BUILDING UPPER ROOF AC & VENTILATION LAYOUT - SHEET 1 OF 6	A	MQ174-R1-DH-BM-4011	AUXILIARY PUMP STATION GROUND FLOOR AC & VENTILATION LAYOUT	A
MQ174-R1-DH-BM-1412	MAIN PUMP STATION BUILDING UPPER ROOF AC & VENTILATION LAYOUT - SHEET 2 OF 6	A	MQ174-R1-DH-BM-4012	AUXILIARY PUMP STATION ROOF LEVEL AC & VENTILATION LAYOUT	A
MQ174-R1-DH-BM-1413	MAIN PUMP STATION BUILDING UPPER ROOF AC & VENTILATION LAYOUT - SHEET 3 OF 6	A	MQ174-R1-DH-BM-4082	AUXILIARY PUMP STATION CHILLED WATER SCHEMATICS	A
MQ174-R1-DH-BM-1414	MAIN PUMP STATION BUILDING UPPER ROOF AC & VENTILATION LAYOUT - SHEET 4 OF 6	A	MQ174-R1-DH-BM-4091	AUXILIARY PUMP STATION EQUIPMENT SCHEDULES	A
MQ174-R1-DH-BM-1415	MAIN PUMP STATION BUILDING UPPER ROOF AC & VENTILATION LAYOUT - SHEET 5 OF 6	A	MQ174-R1-DH-BM-4110	UTILITY PUMPING STATION AND TANKS GROUND FLOOR AC&V LAYOUT	A
MQ174-R1-DH-BM-1416	MAIN PUMP STATION BUILDING UPPER ROOF AC & VENTILATION LAYOUT - SHEET 6 OF 6	A	MQ174-R1-DH-BM-4111	UTILITY PUMPING STATION AND TANKS ROOF LEVEL AC&V LAYOUT	A
MQ174-R1-DH-BM-1030	MAIN PUMP STATION BUILDING BASEMENT FLOOR CHILLED WATER LAYOUT KEYPLAN	A	MQ174-R1-DH-BM-4191	UTILITY PUMPING STATION AND TANKS MECHANICAL EQUIPMENT SCHEDULES	A
MQ174-R1-DH-BM-1031	MAIN PUMP STATION BUILDING BASEMENT FLOOR CHILLED WATER LAYOUT - SHEET 1 OF 6	A	MQ174-R1-DH-BM-4510	EMERGENCY TANKER FILLING STATION UNDERGROUND LEVEL AC LAYOUT	A
MQ174-R1-DH-BM-1032	MAIN PUMP STATION BUILDING BASEMENT FLOOR CHILLED WATER LAYOUT - SHEET 2 OF 6	A	MQ174-R1-DH-BM-4511	EMERGENCY TANKER FILLING STATION GROUND FLOOR AC LAYOUT	A
MQ174-R1-DH-BM-1033	MAIN PUMP STATION BUILDING BASEMENT FLOOR CHILLED WATER LAYOUT - SHEET 3 OF 6	A	MQ174-R1-DH-BM-4512	EMERGENCY TANKER FILLING STATION ROOF LEVEL AC LAYOUT	A
MQ174-R1-DH-BM-1034	MAIN PUMP STATION BUILDING BASEMENT FLOOR CHILLED WATER LAYOUT - SHEET 4 OF 6	A	MQ174-R1-DH-BM-4582	EMERGENCY TANKER FILLING STATION VENTILATION SCHEMATIC DIAGRAM	A
MQ174-R1-DH-BM-1035	MAIN PUMP STATION BUILDING BASEMENT FLOOR CHILLED WATER LAYOUT - SHEET 5 OF 6	A	MQ174-R1-DH-BM-4591	EMERGENCY TANKER FILLING STATION MECHANICAL EQUIPMENT SCHEDULES	A
MQ174-R1-DH-BM-1036	MAIN PUMP STATION BUILDING BASEMENT FLOOR CHILLED WATER LAYOUT - SHEET 6 OF 6	A	MQ174-R1-DH-BM-5510	GUARD HOUSE GROUND FLOOR AC & VENTILATION LAYOUT	A
MQ174-R1-DH-BM-1230	MAIN PUMP STATION BUILDING GROUND FLOOR CHILLED WATER LAYOUT KEYPLAN	A	MQ174-R1-DH-BM-5511	GUARD HOUSE ROOF LEVEL AC & VENTILATION LAYOUT	A
MQ174-R1-DH-BM-1231	MAIN PUMP STATION BUILDING GROUND FLOOR CHILLED WATER LAYOUT - SHEET 1 OF 6	A	MQ174-R1-DH-BM-5591	GUARD HOUSE MECHANICAL EQUIPMENT SCHEDULES	A
MQ174-R1-DH-BM-1232	MAIN PUMP STATION BUILDING GROUND FLOOR CHILLED WATER LAYOUT - SHEET 2 OF 6	A	MQ174-R1-DH-BM-6010	MAINTENANCE CLEANERS & WORKSHOP GROUND FLOOR AC & VENTILATION LAYOUT	A
MQ174-R1-DH-BM-1233	MAIN PUMP STATION BUILDING GROUND FLOOR CHILLED WATER LAYOUT - SHEET 3 OF 6	A	MQ174-R1-DH-BM-6011	MAINTENANCE CLEANERS & WORKSHOP ROOF LEVEL AC & VENTILATION LAYOUT	A
MQ174-R1-DH-BM-1234	MAIN PUMP STATION BUILDING GROUND FLOOR CHILLED WATER LAYOUT - SHEET 4 OF 6	A	MQ174-R1-DH-BM-6081	MAINTENANCE CLEANERS & WORKSHOP AC SCHEMATIC DIAGRAM	A
MQ174-R1-DH-BM-1235	MAIN PUMP STATION BUILDING GROUND FLOOR CHILLED WATER LAYOUT - SHEET 5 OF 6	A	MQ174-R1-DH-BM-6082	MAINTENANCE CLEANERS & WORKSHOP VENTILATION SCHEMATIC DIAGRAM	A
MQ174-R1-DH-BM-1236	MAIN PUMP STATION BUILDING GROUND FLOOR CHILLED WATER LAYOUT - SHEET 6 OF 6	A	MQ174-R1-DH-BM-6091	MAINTENANCE CLEANERS & WORKSHOP MECHANICAL EQUIPMENT SCHEDULES	A
MQ174-R1-DH-BM-1331	MAIN PUMP STATION BUILDING LOWER ROOF CHILLED WATER LAYOUT KEYPLAN	A	MQ174-R1-DH-BM-6510	WATER TESTING FACILITY GROUND FLOOR AC & VENTILATION LAYOUT	A
MQ174-R1-DH-BM-1331	MAIN PUMP STATION BUILDING LOWER ROOF CHILLED WATER LAYOUT - SHEET 1 OF 6	A	MQ174-R1-DH-BM-6511	WATER TESTING FACILITY ROOF LEVEL AC & VENTILATION LAYOUT	A
MQ174-R1-DH-BM-1332	MAIN PUMP STATION BUILDING LOWER ROOF CHILLED WATER LAYOUT - SHEET 2 OF 6	A	MQ174-R1-DH-BM-6581	WATER TESTING FACILITY AC & VENTILATION SCHEMATIC DIAGRAM	A
MQ174-R1-DH-BM-1333	MAIN PUMP STATION BUILDING LOWER ROOF CHILLED WATER LAYOUT - SHEET 3 OF 6	A	MQ174-R1-DH-BM-6591	WATER TESTING FACILITY MECHANICAL EQUIPMENT SCHEDULES	A
MQ174-R1-DH-BM-1334	MAIN PUMP STATION BUILDING LOWER ROOF CHILLED WATER LAYOUT - SHEET 4 OF 6	A	MQ174-R1-DH-BM-7010	REMOTE GENERATOR SET GROUND FLOOR AC & VENTILATION LAYOUT	A
MQ174-R1-DH-BM-1335	MAIN PUMP STATION BUILDING LOWER ROOF CHILLED WATER LAYOUT - SHEET 5 OF 6	A	MQ174-R1-DH-BM-7011	REMOTE GENERATOR SET ROOF LEVEL AC & VENTILATION LAYOUT	A
MQ174-R1-DH-BM-1336	MAIN PUMP STATION BUILDING LOWER ROOF CHILLED WATER LAYOUT - SHEET 6 OF 6	A	MQ174-R1-DH-BM-7091	REMOTE GENERATOR SET MECHANICAL EQUIPMENT SCHEDULES	A
MQ174-R1-DH-BM-1802	MAIN PUMP STATION BUILDING VENTILATION SCHEMATIC DIAGRAM - SHEET 1 OF 6	A	MQ174-R1-DH-BM-7510	REMOTE SUB-STATION 1&2 GROUND FLOOR AC & VENTILATION LAYOUT	A
MQ174-R1-DH-BM-1803	MAIN PUMP STATION BUILDING VENTILATION SCHEMATIC DIAGRAM - SHEET 2 OF 6	A	MQ174-R1-DH-BM-7511	REMOTE SUB-STATION 1&2 ROOF LEVEL AC & VENTILATION LAYOUT	A
MQ174-R1-DH-BM-1804	MAIN PUMP STATION BUILDING VENTILATION SCHEMATIC DIAGRAM - SHEET 3 OF 6	A	MQ174-R1-DH-BM-7591	REMOTE SUB-STATION 1&2 MECHANICAL EQUIPMENT SCHEDULES	A
MQ174-R1-DH-BM-1805	MAIN PUMP STATION BUILDING VENTILATION SCHEMATIC DIAGRAM - SHEET 4 OF 6	A	MQ174-R1-DH-BM-1610	REMOTE SUB-STATION 3&4 GROUND FLOOR AC & VENTILATION LAYOUT	A
MQ174-R1-DH-BM-1806	MAIN PUMP STATION BUILDING VENTILATION SCHEMATIC DIAGRAM - SHEET 5 OF 6	A	MQ174-R1-DH-BM-1611	REMOTE SUB-STATION 3&4 ROOF LEVEL AC & VENTILATION LAYOUT	A
MQ174-R1-DH-BM-1807	MAIN PUMP STATION BUILDING VENTILATION SCHEMATIC DIAGRAM - SHEET 6 OF 6	A	MQ174-R1-DH-BM-1691	REMOTE SUB-STATION 3&4 MECHANICAL EQUIPMENT SCHEDULES	A
MQ174-R1-DH-BM-1808	MAIN PUMP STATION BUILDING CHILLED WATER SCHEMATIC DIAGRAM - SHEET 1 OF 5	A	MQ174-R1-DH-BM-8010	AIR COMPRESSOR GROUND FLOOR AC & VENTILATION LAYOUT	A
MQ174-R1-DH-BM-1809	MAIN PUMP STATION BUILDING CHILLED WATER SCHEMATIC DIAGRAM - SHEET 2 OF 5	A	MQ174-R1-DH-BM-8011	AIR COMPRESSOR ROOF LEVEL AC & VENTILATION LAYOUT	A
MQ174-R1-DH-BM-1810	MAIN PUMP STATION BUILDING CHILLED WATER SCHEMATIC DIAGRAM - SHEET 3 OF 5	A	MQ174-R1-DH-BM-8091	AIR COMPRESSOR MECHANICAL EQUIPMENT SCHEDULES	A
MQ174-R1-DH-BM-1811	MAIN PUMP STATION BUILDING CHILLED WATER SCHEMATIC DIAGRAM - SHEET 4 OF 5	A	MQ174-R1-DH-BM-8510	WATER QUALITY MONITORING GROUND FLOOR AC & VENTILATION LAYOUT	A
MQ174-R1-DH-BM-1812	MAIN PUMP STATION BUILDING CHILLED WATER SCHEMATIC DIAGRAM - SHEET 5 OF 5	A	MQ174-R1-DH-BM-8511	WATER QUALITY MONITORING ROOF LEVEL AC & VENTILATION LAYOUT	A
MQ174-R1-DH-BM-1901	MAIN PUMP STATION BUILDING MECHANICAL EQUIPMENT SCHEDULES	A	MQ174-R1-DH-BM-8591	WATER QUALITY MONITORING MECHANICAL EQUIPMENT SCHEDULES	A
MQ174-R1-DH-BM-2010	MAIN GUARD HOUSE GROUND FLOOR AC & VENTILATION LAYOUT	A	MQ174-R1-DH-BM-9510	TYPICAL KIOSK BUILDING GROUND FLOOR AC & VENTILATION LAYOUT	A
MQ174-R1-DH-BM-2011	MAIN GUARD HOUSE ROOF LEVEL AC & VENTILATION LAYOUT	A	MQ174-R1-DH-BM-9511	TYPICAL KIOSK BUILDING ROOF LEVEL AC & VENTILATION LAYOUT	A
MQ174-R1-DH-BM-2081	MAIN GUARD HOUSE AC&V SCHEMATIC DIAGRAM	A	MQ174-R1-DH-BM-9591	TYPICAL KIOSK BUILDING MECHANICAL EQUIPMENT SCHEDULES	A
MQ174-R1-DH-BM-2091	MAIN GUARD HOUSE MECHANICAL EQUIPMENT SCHEDULES	A	MQ174-R1-DH-BE-0001	GENERAL NOTES	A
MQ174-R1-DH-BM-2610	CABLE GALLERY TUNNEL GROUND FLOOR AC & VENTILATION LAYOUT	A	MQ174-R1-DH-BE-0002	LEGEND AND SYMBOLS	A
MQ174-R1-DH-BM-2611	CABLE GALLERY TUNNEL ROOF LEVEL AC & VENTILATION LAYOUT	A	MQ174-R1-DH-BE-0003	LIGHT FITTING SCHEDULES - SHEET 1 OF 3	A
MQ174-R1-DH-BM-2691	CABLE GALLERY TUNNEL MECHANICAL EQUIPMENT SCHEDULES	A	MQ174-R1-DH-BE-0004	LIGHT FITTING SCHEDULES - SHEET 2 OF 3	A
MQ174-R1-DH-BM-2510	MV & GENERATOR BASEMENT LEVEL AC & VENTILATION LAYOUT	A	MQ174-R1-DH-BE-0005	LIGHT FITTING SCHEDULES - SHEET 3 OF 3	A
MQ174-R1-DH-BM-2511	MV & GENERATOR GROUND FLOOR AC & VENTILATION LAYOUT - SHEET 1 OF 2	A			
MQ174-R1-DH-BM-2512	MV & GENERATOR GROUND FLOOR AC & VENTILATION LAYOUT - SHEET 2 OF 2	A			
MQ174-R1-DH-BM-2513	MV & GENERATOR ROOF LEVEL AC & VENTILATION LAYOUT - SHEET 1 OF 2	A			
MQ174-R1-DH-BM-2514	MV & GENERATOR ROOF LEVEL AC & VENTILATION LAYOUT - SHEET 2 OF 2	A			
MQ174-R1-DH-BM-2582	MV & GENERATOR VENTILATION SCHEMATIC DIAGRAM - SHEET 1 OF 4	A			
MQ174-R1-DH-BM-2583	MV & GENERATOR VENTILATION SCHEMATIC DIAGRAM - SHEET 2 OF 4	A			
MQ174-R1-DH-BM-2584	MV & GENERATOR VENTILATION SCHEMATIC DIAGRAM - SHEET 3 OF 4	A			
MQ174-R1-DH-BM-2585	MV & GENERATOR VENTILATION SCHEMATIC DIAGRAM - SHEET 4 OF 4	A			

A-ZONAH ISSUED FOR TENDER	B5	AM
Rev Date	Revision Details	Drawn Check Appraiser
Status		
TENDER		
Scales	1:300 (A1) 1:600 (A3)	Current Issue Signatures Drawn B.SANTOS
Original Size	A1	Checker M.MINGAD
Date	QNHQ	Appraiser AJHARRIS
Projection	UTM - 39N	Date MAR 2016
Filename	Client	
Project Code GTC 626/2014		
Project? WATER SECURITY MEGA RESERVOIRS PACKAGE A PRPS 1 - UMM BIRKA		
Title BUILDING - MEPF DRAWING LIST SHEET 03 OF 07		
Drawing No.	Rev MQ174-R1-DH-GE-0024 A	



DRAWING No.	TITLE	REV No
10174-R1-DH-BE-2085	MAIN GUARD HOUSE FIRE ALARM SCHEMATIC DIAGRAM	A
10174-R1-DH-BE-2081	MAIN GUARD HOUSE DB SCHEDULES	A
10174-R1-DH-BE-2510	HV & GENERATOR BASEMENT LEVEL LIGHTING LAYOUT	A
10174-R1-DH-BE-2526	HV & GENERATOR GROUND FLOOR LIGHTING LAYOUT - SHEET 1 OF 2	A
10174-R1-DH-BE-2530	HV & GENERATOR GROUND FLOOR LIGHTING LAYOUT - SHEET 2 OF 2	A
10174-R1-DH-BE-2532	HV & GENERATOR BASEMENT LEVEL POWER & CONTAINMENT LAYOUT	A
10174-R1-DH-BE-2533	HV & GENERATOR GROUND FLOOR POWER & CONTAINMENT LAYOUT - SHEET 1 OF 2	A
10174-R1-DH-BE-2534	HV & GENERATOR GROUND FLOOR POWER & CONTAINMENT LAYOUT - SHEET 2 OF 2	A
10174-R1-DH-BE-2535	HV & GENERATOR ROOF LEVEL EMERGENCY LIGHTING, FA & PUBLIC ADDRESS LAYOUT	A
10174-R1-DH-BE-2536	HV & GENERATOR ROOF LEVEL EMERGENCY LIGHTING, FA & PUBLIC ADDRESS LAYOUT - SHEET 1 OF 2	A
10174-R1-DH-BE-2537	HV & GENERATOR ROOF LEVEL EMERGENCY LIGHTING, FA & PUBLIC ADDRESS LAYOUT - SHEET 2 OF 2	A
10174-R1-DH-BE-2538	HV & GENERATOR BASEMENT LEVEL TELECOM LAYOUT	A
10174-R1-DH-BE-2539	HV & GENERATOR GROUND FLOOR TELECOM LAYOUT - SHEET 1 OF 2	A
10174-R1-DH-BE-2552	HV & GENERATOR GROUND FLOOR TELECOM LAYOUT - SHEET 2 OF 2	A
10174-R1-DH-BE-2561	HV & GENERATOR FOR GROUND FLOOR LIGHTING PROTECTION LAYOUT - SHEET 1 OF 2	A
10174-R1-DH-BE-2562	HV & GENERATOR FOR GROUND FLOOR LIGHTING PROTECTION LAYOUT - SHEET 2 OF 2	A
10174-R1-DH-BE-2563	HV & GENERATOR ROOF LEVEL LIGHTING PROTECTION LAYOUT - SHEET 1 OF 2	A
10174-R1-DH-BE-2564	HV & GENERATOR ROOF LEVEL LIGHTING PROTECTION LAYOUT - SHEET 2 OF 2	A
10174-R1-DH-BE-2582	HV & GENERATOR FOR FIRE ALARM SCHEMATIC DIAGRAM	A
10174-R1-DH-BE-2585	HV & GENERATOR FOR FIRE ALARM SCHEMATIC DIAGRAM	A
10174-R1-DH-BE-2591	HV & GENERATOR DB SCHEDULES	A
10174-R1-DH-BE-2610	ABLE GALLERY TUNNEL BASEMENT FLOOR LIGHTING LAYOUT	A
10174-R1-DH-BE-2620	ABLE GALLERY TUNNEL BASEMENT FLOOR POWER & CONTAINMENT LAYOUT	A
10174-R1-DH-BE-2621	ABLE GALLERY TUNNEL ROOF LEVEL POWER & CONTAINMENT LAYOUT	A
10174-R1-DH-BE-2630	ABLE GALLERY TUNNEL ROOF LEVEL EMERGENCY LIGHTING, FA & PUBLIC ADDRESS LAYOUT	A
10174-R1-DH-BE-2631	ABLE GALLERY TUNNEL ROOF LEVEL EMERGENCY LIGHTING, FA & PUBLIC ADDRESS LAYOUT	A
10174-R1-DH-BE-2650	ABLE GALLERY TUNNEL BASEMENT FLOOR SECURITY LAYOUT	A
10174-R1-DH-BE-2650	ABLE GALLERY TUNNEL BASEMENT FLOOR TELECOM LAYOUT	A
10174-R1-DH-BE-3110	BULK FUEL STORAGE GROUND FLOOR LIGHTING LAYOUT	A
10174-R1-DH-BE-3120	BULK FUEL STORAGE GROUND FLOOR POWER & CONTAINMENT LAYOUT	A
10174-R1-DH-BE-3130	BULK FUEL STORAGE GROUND FLOOR EMERGENCY LIGHTING, FA & PUBLIC ADDRESS LAYOUT	A
10174-R1-DH-BE-3130	BULK FUEL STORAGE GROUND FLOOR EMERGENCY LIGHTING, FA & PUBLIC ADDRESS LAYOUT	A
10174-R1-DH-BE-3660	BULK FUEL STORAGE GROUND FLOOR LIGHTING AND EARTHING LAYOUT	A
10174-R1-DH-BE-3684	BULK FUEL STORAGE GROUND FLOOR LIGHTING & EARTHING SCHEMATIC DIAGRAM	A
10174-R1-DH-BE-3191	BULK FUEL STORAGE DB SCHEDULES	A
10174-R1-DH-BE-3110	SINGLE BULK FUEL STORE GROUND FLOOR LIGHTING LAYOUT	A
10174-R1-DH-BE-3120	SINGLE BULK FUEL STORE GROUND FLOOR POWER & CONTAINMENT LAYOUT	A
10174-R1-DH-BE-3130	SINGLE BULK FUEL STORE GROUND FLOOR EMERGENCY LIGHTING, FA & PUBLIC ADDRESS LAYOUT	A
10174-R1-DH-BE-3160	SINGLE BULK FUEL STORE GROUND FLOOR LIGHTING AND EARTHING LAYOUT	A
10174-R1-DH-BE-3184	SINGLE BULK FUEL STORE LIGHTING & EARTHING SCHEMATIC DIAGRAM	A
10174-R1-DH-BE-3181	SINGLE BULK FUEL STORAGE DB SCHEDULES	A
10174-R1-DH-BE-3510	FLUORINATION BUILDING GROUND FLOOR TELECOM LAYOUT	A
10174-R1-DH-BE-3510	FLUORINATION BUILDING GROUND FLOOR LIGHTING LAYOUT	A
10174-R1-DH-BE-3521	FLUORINATION BUILDING GROUND FLOOR POWER & CONTAINMENT LAYOUT	A
10174-R1-DH-BE-3521	FLUORINATION BUILDING GROUND FLOOR EMERGENCY LIGHTING, FA & PUBLIC ADDRESS LAYOUT	A
10174-R1-DH-BE-3530	FLUORINATION BUILDING GROUND FLOOR FIRE ALARM SCHEMATIC DIAGRAM	A
10174-R1-DH-BE-3540	FLUORINATION BUILDING GROUND FLOOR SECURITY LAYOUT	A
10174-R1-DH-BE-3550	FLUORINATION BUILDING GROUND FLOOR TELECOM LAYOUT	A
10174-R1-DH-BE-3550	FLUORINATION BUILDING GROUND FLOOR LIGHTING PROJECTION LAYOUT	A
10174-R1-DH-BE-3582	FLUORINATION BUILDING ROOF LEVEL POWER & CONTAINMENT LAYOUT	A
10174-R1-DH-BE-3585	FLUORINATION BUILDING GROUND FLOOR EMERGENCY LIGHTING SCHEMATIC DIAGRAM	A
10174-R1-DH-BE-3591	FLUORINATION BUILDING GROUND FLOOR LIGHTING LAYOUT	A
10174-R1-DH-BE-4010	AUXILIARY PUMP STATION UNDERGROUND LEVEL LIGHTING LAYOUT	A
10174-R1-DH-BE-4011	AUXILIARY PUMP STATION GROUND FLOOR LIGHTING LAYOUT	A

DRAWING No.	TITLE	REV No.	TITLE	REV No.
DRAWING No.	DRAWING No.	REV No.	DRAWING No.	REV No.
MQ174-R1-DH-BE-020	AUXILIARY PUMP STATION UNDERGROUND LEVEL POWER & CONTAINMENT LAYOUT	A	MQ174-RH-DH-BE-5510	WATER TESTING FACILITY GROUND FLOOR LIGHTING LAYOUT
MQ174-R1-DH-BE-021	AUXILIARY PUMP STATION GROUND FLOOR POWER & CONTAINMENT LAYOUT	A	MQ174-RH-DH-BE-5520	WATER TESTING FACILITY GROUND FLOOR POWER & CONTAINMENT LAYOUT
MQ174-R1-DH-BE-022	AUXILIARY PUMP STATION ROOF LEVEL POWER & CONTAINMENT LAYOUT	A	MQ174-RH-DH-BE-5521	WATER TESTING FACILITY ROOF LEVEL POWER & CONTAINMENT LAYOUT
MQ174-R1-DH-BE-030	AUXILIARY PUMP STATION UNDERGROUND FLOOR EMERGENCY LIGHTING, FA & PUBLIC ADDRESS LAYOUT	A	MQ174-RH-DH-BE-5530	WATER TESTING FACILITY GROUND FLOOR EMERGENCY LIGHTING FA & PUBLIC ADDRESS LAYOUT
MQ174-R1-DH-BE-031	AUXILIARY PUMP STATION GROUND FLOOR EMERGENCY LIGHTING, FA & PUBLIC ADDRESS LAYOUT	A	MQ174-RH-DH-BE-5531	WATER TESTING FACILITY ROOF LEVEL EMERGENCY LIGHTING FA & PUBLIC ADDRESS LAYOUT
MQ174-R1-DH-BE-040	AUXILIARY PUMP STATION UNDERGROUND LEVEL SECURITY LAYOUT	A	MQ174-RH-DH-BE-5540	WATER TESTING FACILITY GROUND FLOOR SECURITY LAYOUT
MQ174-R1-DH-BE-130	AUXILIARY PUMP STATION GROUND FLOOR SECURITY LAYOUT	A	MQ174-RH-DH-BE-5550	WATER TESTING FACILITY GROUND FLOOR TELECOM LAYOUT
MQ174-R1-DH-BE-141	AUXILIARY PUMP STATION UNDERGROUND LEVEL TELECOM LAYOUT	A	MQ174-RH-DH-BE-5561	WATER TESTING FACILITY ROOF LEVEL LIGHTING PROTECTION LAYOUT
MQ174-R1-DH-BE-150	AUXILIARY PUMP STATION GROUND FLOOR TELECOM LAYOUT	A	MQ174-RH-DH-BE-5582	WATER TESTING FACILITY EMERGENCY LIGHTING SCHEMATIC DIAGRAM
MQ174-R1-DH-BE-062	AUXILIARY PUMP STATION ROOF LEVEL LIGHTING PROTECTION LAYOUT	A	MQ174-RH-DH-BE-5585	WATER TESTING FACILITY FIRE ALARM SCHEMATIC DIAGRAM
MQ174-R1-DH-BE-085	AUXILIARY PUMP STATION EMERGENCY LIGHTING SCHEMATIC DIAGRAM	A	MQ174-RH-DH-BE-5591	WATER TESTING FACILITY DB SCHEDULES
MQ174-R1-DH-BE-091	AUXILIARY PUMP STATION FIRE ALARM SCHEMATIC DIAGRAM	A	MQ174-RH-DH-BE-7010	REMOTE GENERATOR GROUND FLOOR LIGHTING LAYOUT
MQ174-R1-DH-BE-110	AUXILIARY PUMP STATION GROUND FLOOR LIGHTING LAYOUT	A	MQ174-RH-DH-BE-7020	REMOTE GENERATOR GROUND FLOOR POWER & CONTAINMENT LAYOUT
MQ174-R1-DH-BE-170	UTILITY PUMPING STATION AND TANKS GROUND FLOOR LIGHTING LAYOUT	A	MQ174-RH-DH-BE-7021	REMOTE GENERATOR ROOF LEVEL POWER & CONTAINMENT LAYOUT
MQ174-R1-DH-BE-121	UTILITY PUMPING STATION AND TANKS GROUND FLOOR POWER & CONTAINMENT LAYOUT	A	MQ174-RH-DH-BE-7030	REMOTE GENERATOR GROUND FLOOR EMERGENCY LIGHTING, FA & PUBLIC ADDRESS LAYOUT
MQ174-R1-DH-BE-130	UTILITY PUMPING STATION AND TANKS GROUND FLOOR EMERGENCY LIGHTING, FA & PUBLIC ADDRESS LAYOUT	A	MQ174-RH-DH-BE-7031	REMOTE GENERATOR ROOF LEVEL EMERGENCY LIGHTING, FA & PUBLIC ADDRESS LAYOUT
MQ174-R1-DH-BE-131	UTILITY PUMPING STATION AND TANKS GROUND FLOOR LEVEL ENERGY LIGHTING, FA & PUBLIC ADDRESS LAYOUT	A	MQ174-RH-DH-BE-7040	REMOTE GENERATOR GROUND FLOOR SECURITY LAYOUT
MQ174-R1-DH-BE-4140	UTILITY PUMPING STATION AND TANKS GROUND FLOOR SECURITY LAYOUT	A	MQ174-RH-DH-BE-7050	REMOTE GENERATOR GROUND FLOOR TELECOM LAYOUT
MQ174-R1-DH-BE-150	UTILITY PUMPING STATION AND TANKS GROUND FLOOR TELECOM LAYOUT	A	MQ174-RH-DH-BE-7061	REMOTE GENERATOR ROOF LEVEL LIGHTING PROTECTION LAYOUT
MQ174-R1-DH-BE-161	UTILITY PUMPING STATION AND TANKS GROUND FLOOR LEVEL LIGHTING PROTECTION LAYOUT	A	MQ174-RH-DH-BE-7081	REMOTE GENERATOR LIGHTING & EARTHING SCHEMATIC DIAGRAM
MQ174-R1-DH-BE-186	UTILITY PUMPING STATION AND TANKS GROUND FLOOR LEVEL LIGHTING & EARTHING SCHEMATIC DIAGRAM	A	MQ174-RH-DH-BE-7085	REMOTE GENERATOR T ALARM DEVICE SCHEDULE & FIRE ALARM SCHEMATIC DIAGRAM
MQ174-R1-DH-BE-185	UTILITY PUMPING STATION AND TANKS GROUND FLOOR SECURITY LAYOUT	A	MQ174-RH-DH-BE-7091	REMOTE GENERATOR DB SCHEDULES
MQ174-R1-DH-BE-191	UTILITY PUMPING STATION AND TANKS GROUND FLOOR SECURITY LAYOUT	A	MQ174-RH-DH-BE-7510	REMOTE SUBSTATION 1&2 GROUND FLOOR LIGHTING LAYOUT
MQ174-R1-DH-BE-510	EMERGENCY TANKER PILING STATION UNDERGROUND LEVEL LIGHTING LAYOUT	A	MQ174-RH-DH-BE-7520	REMOTE SUBSTATION 1&2 GROUND FLOOR POWER & CONTAINMENT LAYOUT
MQ174-R1-DH-BE-511	EMERGENCY TANKER PILING STATION GROUND FLOOR LIGHTING LAYOUT	A	MQ174-RH-DH-BE-7521	REMOTE SUBSTATION 1&2 ROOF LEVEL POWER & CONTAINMENT LAYOUT
MQ174-R1-DH-BE-520	EMERGENCY TANKER PILING STATION UNDERGROUND LEVEL POWER & CONTAINMENT LAYOUT	A	MQ174-RH-DH-BE-7530	REMOTE SUBSTATION 1&2 ROOF LEVEL EMERGENCY LIGHTING, FA & PUBLIC ADDRESS LAYOUT
MQ174-R1-DH-BE-1521	EMERGENCY TANKER PILING STATION GROUND FLOOR POWER & CONTAINMENT LAYOUT	A	MQ174-RH-DH-BE-7531	REMOTE SUBSTATION 1&2 ROOF LEVEL EMERGENCY LIGHTING, FA & PUBLIC ADDRESS LAYOUT
MQ174-R1-DH-BE-522	EMERGENCY TANKER PILING STATION GROUND FLOOR POWER & CONTAINMENT LAYOUT	A	MQ174-RH-DH-BE-7540	REMOTE SUBSTATION 1&2 GROUND FLOOR SECURITY LAYOUT
MQ174-R1-DH-BE-530	EMERGENCY TANKER PILING STATION UNDERGROUND LEVEL EMERGENCY LIGHTING, FA & PUBLIC ADDRESS LAYOUT	A	MQ174-RH-DH-BE-7550	REMOTE SUBSTATION 1&2 GROUND FLOOR TELECOM LAYOUT
MQ174-R1-DH-BE-1531	EMERGENCY TANKER PILING STATION GROUND FLOOR EMERGENCY LIGHTING, FA & PUBLIC ADDRESS LAYOUT	A	MQ174-RH-DH-BE-7561	REMOTE SUBSTATION 1&2 ROOF LEVEL LIGHTING PROTECTION LAYOUT
MQ174-R1-DH-BE-540	EMERGENCY TANKER PILING STATION GROUND FLOOR SECURITY LAYOUT	A	MQ174-RH-DH-BE-7581	REMOTE SUBSTATION 1&2 LIGHTING & EARTHING SCHEMATIC DIAGRAM
MQ174-R1-DH-BE-1541	EMERGENCY TANKER PILING STATION GROUND FLOOR SECURITY LAYOUT	A	MQ174-RH-DH-BE-7585	REMOTE SUBSTATION 1&2 ALARM DEVICE SCHEDULE & FIRE ALARM SCHEMATIC DIAGRAM
MQ174-R1-DH-BE-559	EMERGENCY TANKER PILING STATION UNDERGROUND LEVEL TELECOM LAYOUT	A	MQ174-RH-DH-BE-7591	REMOTE SUBSTATION 1&2 DB SCHEDULES
MQ174-R1-DH-BE-1551	EMERGENCY TANKER PILING STATION GROUND FLOOR LIGHTING LAYOUT	A	MQ174-RH-DH-BE-7630	REMOTE SUBSTATION 3&4 GROUND FLOOR EMERGENCY LIGHTING, FA & PUBLIC ADDRESS LAYOUT
MQ174-R1-DH-BE-557	EMERGENCY TANKER PILING STATION ROOF LEVEL LIGHTING AND EARTHING LAYOUT	A	MQ174-RH-DH-BE-7631	REMOTE SUBSTATION 3&4 ROOF LEVEL EMERGENCY LIGHTING, FA & PUBLIC ADDRESS LAYOUT
MQ174-R1-DH-BE-1582	EMERGENCY TANKER PILING STATION EMERGENCY LIGHTING SCHEMATIC DIAGRAM	A	MQ174-RH-DH-BE-7640	REMOTE SUBSTATION 3&4 GROUND FLOOR SECURITY LAYOUT
MQ174-R1-DH-BE-1585	EMERGENCY TANKER PILING STATION FIRE ALARM SCHEMATIC DIAGRAM	A	MQ174-RH-DH-BE-7650	REMOTE SUBSTATION 3&4 GROUND FLOOR TELECOM LAYOUT
MQ174-R1-DH-BE-1591	EMERGENCY TANKER PILING STATION DB SCHEDULES	A	MQ174-RH-DH-BE-7661	REMOTE SUBSTATION 3&4 ROOF LEVEL LIGHTING PROTECTION LAYOUT
MQ174-R1-DH-BE-1591	GUARD HOUSE GROUND FLOOR LIGHTING LAYOUT	A	MQ174-RH-DH-BE-7681	REMOTE SUBSTATION 3&4 LIGHTING & EARTHING SCHEMATIC DIAGRAM
MQ174-R1-DH-BE-1595	GUARD HOUSE GROUND FLOOR SECURITY LAYOUT	A	MQ174-RH-DH-BE-7685	REMOTE SUBSTATION 3&4 ALARM DEVICE SCHEDULE & FIRE ALARM SCHEMATIC DIAGRAM
MQ174-R1-DH-BE-1599	GUARD HOUSE DB SCHEDULES	A	MQ174-RH-DH-BE-7691	REMOTE SUBSTATION 3&4 DB SCHEDULES
MQ174-R1-DH-BE-1599	Maintenance Cleaners & Workshop Ground Floor Lighting Layout	A	MQ174-RH-DH-BE-8010	AIR COMPRESSOR BUILDING GROUND FLOOR LIGHTING LAYOUT
MQ174-R1-DH-BE-5520	Maintenance Cleaners & Workshop Ground Floor Power & Containment Layout	A	MQ174-RH-DH-BE-8020	AIR COMPRESSOR BUILDING GROUND FLOOR POWER & CONTAINMENT LAYOUT
MQ174-R1-DH-BE-5521	Maintenance Cleaners & Workshop Roof Level Power & Containment Layout	A	MQ174-RH-DH-BE-8021	AIR COMPRESSOR BUILDING ROOF LEVEL POWER & CONTAINMENT LAYOUT
MQ174-R1-DH-BE-5520	Maintenance Cleaners & Workshop Roof Level Power & Containment Layout	A	MQ174-RH-DH-BE-8030	AIR COMPRESSOR BUILDING GROUND FLOOR EMERGENCY LIGHTING, FA & PUBLIC ADDRESS LAYOUT
MQ174-R1-DH-BE-5540	Maintenance Cleaners & Workshop Ground Floor Emergency Lighting, FA & Public Address Layout	A	MQ174-RH-DH-BE-8031	AIR COMPRESSOR BUILDING ROOF LEVEL EMERGENCY LIGHTING FA & PUBLIC ADDRESS LAYOUT
MQ174-R1-DH-BE-5550	Maintenance Cleaners & Workshop Ground Floor Emergency Lighting LAYOUT	A	MQ174-RH-DH-BE-8040	Maintenance Cleaners & Workshop Ground Floor Security Layout
MQ174-R1-DH-BE-5561	Maintenance Cleaners & Workshop Ground Floor Protection Layout	A	MQ174-RH-DH-BE-8050	Maintenance Cleaners & Workshop Ground Floor Telecom Layout
MQ174-R1-DH-BE-5582	Maintenance Cleaners & Workshop Ground Floor Emergency Lighting SCHEMATIC DIAGRAM	A	MQ174-RH-DH-BE-8051	Maintenance Cleaners & Workshop Roof Level Lighting Protection Layout
MQ174-R1-DH-BE-5595	Maintenance Cleaners & Workshop Ground Floor Emergency Lighting SCHEMATIC DIAGRAM	A	MQ174-RH-DH-BE-8054	Maintenance Cleaners & Workshop Lighting & Eartthing SCHEMATIC DIAGRAM
MQ174-R1-DH-BE-1599	Maintenance Cleaners & Workshop DB SCHEDULES	A	MQ174-RH-DH-BE-8055	Maintenance Cleaners & Workshop Fire Alarm SCHEMATIC DIAGRAM
MQ174-R1-DH-BE-1601	Maintenance Cleaners & Workshop Ground Floor Lighting Layout	A	MQ174-RH-DH-BE-8056	AIR COMPRESSOR BUILDING ALARM DEVICE SCHEDULE DB SCHEDULES
MQ174-R1-DH-BE-6010	Maintenance Cleaners & Workshop Ground Floor Power & Containment Layout	A	MQ174-RH-DH-BE-8057	AIR COMPRESSOR BUILDING GROUND FLOOR SECURITY LAYOUT
MQ174-R1-DH-BE-6010	Maintenance Cleaners & Workshop Ground Floor Emergency Lighting, FA & Public Address Layout	A	MQ174-RH-DH-BE-8058	Maintenance Cleaners & Workshop Ground Floor Lighting Layout
MQ174-R1-DH-BE-6021	Maintenance Cleaners & Workshop Roof Level Power & Containment Layout	A	MQ174-RH-DH-BE-8059	Maintenance Cleaners & Workshop Roof Level Emergency Lighting, FA & Public Address Layout
MQ174-R1-DH-BE-6030	Maintenance Cleaners & Workshop Ground Floor Emergency Lighting, FA & Public Address Layout	A	MQ174-RH-DH-BE-8060	Maintenance Cleaners & Workshop Ground Floor Protection Layout
MQ174-R1-DH-BE-6031	Maintenance Cleaners & Workshop Power & Containment Layout	A	MQ174-RH-DH-BE-8061	Maintenance Cleaners & Workshop Lighting & Eartthing SCHEMATIC DIAGRAM
MQ174-R1-DH-BE-6040	Maintenance Cleaners & Workshop Ground Floor Security Layout	A	MQ174-RH-DH-BE-8064	Maintenance Cleaners & Workshop Fire Alarm SCHEMATIC DIAGRAM
MQ174-R1-DH-BE-6050	Maintenance Cleaners & Workshop Ground Floor Telecom Layout	A	MQ174-RH-DH-BE-8065	Maintenance Cleaners & Workshop DB SCHEDULES
MQ174-R1-DH-BE-6061	Maintenance Cleaners & Workshop Roof Level Lighting Protection Layout	A	MQ174-RH-DH-BE-8066	Maintenance Cleaners & Workshop Ground Floor Lighting Layout
MQ174-R1-DH-BE-6082	Maintenance Cleaners & Workshop Lighting & Eartthing SCHEMATIC DIAGRAM	A	MQ174-RH-DH-BE-8067	Maintenance Cleaners & Workshop Fire Alarm SCHEMATIC DIAGRAM
MQ174-R1-DH-BE-6095	Maintenance Cleaners & Workshop Fire Alarm SCHEMATIC DIAGRAM	A	MQ174-RH-DH-BE-8068	Maintenance Cleaners & Workshop DB SCHEDULES
MQ174-R1-DH-BE-6091	Maintenance Cleaners & Workshop DB SCHEDULES	A	MQ174-RH-DH-BE-8069	Maintenance Cleaners & Workshop Fire Alarm SCHEMATIC DIAGRAM
Project Code : GTC 626/2016				
Project : WATER SECURITY MEGA RESERVOIRS PACKAGE A PRPS 1 - UMM BIRKA				
Title : BUILDING - MEPC DRAWING LIST SHEET 06 OF 07				
Drawing No : MQ174-R1-DH-BE-0027 A				

DRAWING No.	TITLE	REV No.
MQ174-R1-DH-BE-8516	WATER QUALITY MONITORING GROUND FLOOR LIGHTING LAYOUT	A
MQ174-R1-DH-BE-8520	WATER QUALITY MONITORING GROUND FLOOR POWER & CONTAINMENT LAYOUT	A
MQ174-R1-DH-BE-8521	WATER QUALITY MONITORING ROOF LEVEL POWER & CONTAINMENT LAYOUT	A
MQ174-R1-DH-BE-8530	WATER QUALITY MONITORING GROUND FLOOR EMERGENCY LIGHTING, FA & PUBLIC ADDRESS LAYOUT	A
MQ174-R1-DH-BE-8540	WATER QUALITY MONITORING GROUND FLOOR SECURITY LAYOUT	A
MQ174-R1-DH-BE-8550	WATER QUALITY MONITORING GROUND FLOOR TELECOM LAYOUT	A
MQ174-R1-DH-BE-8564	WATER QUALITY MONITORING LIGHTING & EARTHING SCHEMATIC DIAGRAM	A
MQ174-R1-DH-BE-8585	WATER QUALITY MONITORING DEVICE SCHEDULE & FIRE ALARM SCHEMATIC DIAGRAM	A
MQ174-R1-DH-BE-8591	WATER QUALITY MONITORING DB SCHEDULES 1 OF 3	A
MQ174-R1-DH-BE-9510	TYPICAL KIOSK BUILDING GROUND FLOOR LIGHTING LAYOUT	A
MQ174-R1-DH-BE-9520	TYPICAL KIOSK BUILDING GROUND FLOOR POWER & CONTAINMENT LAYOUT	A
MQ174-R1-DH-BE-9521	TYPICAL KIOSK BUILDING ROOF LEVEL POWER & CONTAINMENT LAYOUT	A
MQ174-R1-DH-BE-9530	TYPICAL KIOSK BUILDING GROUND FLOOR EMERGENCY LIGHTING, FA & PUBLIC ADDRESS LAYOUT	A
MQ174-R1-DH-BE-9540	TYPICAL KIOSK BUILDING GROUND FLOOR SECURITY LAYOUT	A
MQ174-R1-DH-BE-9550	TYPICAL KIOSK BUILDING GROUND FLOOR TELECOM LAYOUT	A
MQ174-R1-DH-BE-9584	TYPICAL KIOSK BUILDING LIGHTING & EARTHING SCHEMATIC DIAGRAM	A
MQ174-R1-DH-BE-9585	TYPICAL KIOSK BUILDING DEVICE SCHEDULE & FIRE ALARM SCHEMATIC DIAGRAM	A
MQ174-R1-DH-BE-9591	TYPICAL KIOSK BUILDING DB SCHEDULES	A

A.	Permit/Status for Drawing	Rev. No.	Alt.
<b>TENDER</b>			
Status : 1306 (A1) Current Issue Standard 1300 (A3) Previous Original Size : A1 Drawn : M.SANTOS Date : 01/09/2014 Approved : MABRI Projection : UTM - 39N Date : MAR 2014 Revision : 01 Reference : <a href="#">Download</a>			

Project Name	GTC 6226/2014
Project	WATER SECURITY MEGA RESERVOIRS PACKAGE A PRPS 1 - UMM BIRKA
Title	BUILDING - MEPP DRAWING LIST SHEET 07 OF 07

Drawing No. MQ174-R1-DH-GE-0028 A Rev. 00

Date	Revised Date	Item / Headings
		<b>TENDER</b>
Start Date		
SEASIDE	NTS	Green tree Sights+ Driveway
Singapore	A1	G. SUDERIA Crater
Singapore	QNHQ	B. DAVID Apteker
Singapore	UTM - 39N	H ALIH HAR 2014
Preparation		
Filename: N0748-BL-DR-001-Bdeg		
Tender No:		
		

P & ID LEGEND  
DRAWING LIST  
SHEET 01 OF 01

Dr. Swings No. MQ174-R1-DH-GE-0011 Rev B

DRAWING NO.	TITLE	REV NO.	DRAWING NO.	TITLE	REV NO.	
M0174-R1-DH-SC-0038	AUTOMATION DRAWING LIST SHEET 01 OF 04	A	M0174-R1-DH-SC-1213	MAIN PUMP STATION BUILDING GROUND FLOOR SCADA LAYOUT SHEET 3 OF 6	A	
M0174-R1-DH-SC-0031	AUTOMATION DRAWING LIST SHEET 02 OF 04	A	M0174-R1-DH-SC-1214	MAIN PUMP STATION BUILDING GROUND FLOOR SCADA LAYOUT SHEET 4 OF 6	A	
M0174-R1-DH-SC-0032	AUTOMATION DRAWING LIST SHEET 03 OF 04	A	M0174-R1-DH-SC-1215	MAIN PUMP STATION BUILDING GROUND FLOOR SCADA LAYOUT SHEET 5 OF 6	A	
M0174-R1-DH-SC-0033	AUTOMATION DRAWING LIST SHEET 04 OF 04	A	M0174-R1-DH-SC-1216	MAIN PUMP STATION BUILDING GROUND FLOOR SCADA LAYOUT SHEET 6 OF 6	A	
			M0174-R1-DH-SC-1217	MAIN PUMP STATION BUILDING ENLARGED CONTROL AND SERVER ROOM SCADA LAYOUT	A	
			M0174-R1-DH-SC-2010	MAIN GUARD HOUSE GROUND FLOOR SCADA LAYOUT	A	
			M0174-R1-DH-SC-2511	HY & GENERATOR GROUND FLOOR SCADA LAYOUT SHEET 1 OF 2	A	
			M0174-R1-DH-SC-2512	HY & GENERATOR GROUND FLOOR SCADA LAYOUT SHEET 2 OF 2	A	
			M0174-R1-DH-SC-2010	BULK FUEL STORAGE GROUND FLOOR SCADA LAYOUT	A	
			M0174-R1-DH-SC-3510	CHORINATION TOWER GROUND FLOOR SCADA LAYOUT	A	
			M0174-R1-DH-SC-4010	AUXILIARY PUMP STATION UNDERGROUND LEVEL SCADA LAYOUT	A	
			M0174-R1-DH-SC-4011	AUXILIARY PUMP STATION GROUND FLOOR SCADA LAYOUT	A	
			M0174-R1-DH-SC-4010	HYDRAULIC PUMPING STATION AND TANKS GROUND LEVEL SCADA LAYOUT	A	
			M0174-R1-DH-SC-4570	TANKER FILMING STATION UNDERGROUND LEVEL SCADA LAYOUT	A	
			M0174-R1-DH-SC-4571	TANKER FILMING STATION GROUND FLOOR SCADA LAYOUT	A	
			M0174-R1-DH-SC-5519	Maintenance Cleaners and Workshop Ground Floor SCADA Layout	A	
			M0174-R1-DH-SC-5610	Maintenance Cleaners and Workshop Ground Floor SCADA Layout	A	
			M0174-R1-DH-SC-6510	WATER TESTING FACILITY GROUND FLOOR SCADA LAYOUT	A	
			M0174-R1-DH-SC-7010	REMOTE GENERATOR 1 GROUND FLOOR SCADA LAYOUT	A	
			M0174-R1-DH-SC-7010	REMOTE SUBSTATION 1 & 2 GROUND FLOOR SCADA LAYOUT	A	
			M0174-R1-DH-SC-7610	REMOTE SUBSTATION 3 & 4 GROUND FLOOR SCADA LAYOUT	A	
			M0174-R1-DH-SC-8010	AIR COMPRESSOR BUILDING GROUND FLOOR SCADA LAYOUT	A	
			M0174-R1-DH-SC-8510	WATER QUALITY MONITORING GROUND FLOOR SCADA LAYOUT	A	
				RING 1 - SCADA RACK DETAILS		
			M0174-R1-DH-SC-2110-01	SSTB PUMPS - SHEET 2 OF 14		
			M0174-R1-DH-SC-2111-01	TRANSFORMER ROOM - SHEET 3 OF 16		
			M0174-R1-DH-SC-2112-01	SSTB PUMPS - SHEET 4 OF 14		
			M0174-R1-DH-SC-2113-01	MECHANICAL PLANT 3 - SHEET 5 OF 14		
			M0174-R1-DH-SC-2114-01	MECHANICAL PLANT 4 - SHEET 6 OF 14		
			M0174-R1-DH-SC-2115-01	MECHANICAL PLANT 1 - SHEET 7 OF 14		
			M0174-R1-DH-SC-2116-01	MECHANICAL PLANT 2 - SHEET 8 OF 14		
			M0174-R1-DH-SC-2117-01	CONTROL ROOM RACK DIAGRAM - SHEET 9 OF 14		
			M0174-R1-DH-SC-2118-01	SERVER ROOM SHEET 1 - SHEET 10 OF 14		
			M0174-R1-DH-SC-2119-01	SERVER ROOM SHEET 2 - SHEET 11 OF 14		
			M0174-R1-DH-SC-2120-01	SERVER ROOM SHEET 3 - SHEET 12 OF 14		
			M0174-R1-DH-SC-2121-01	SERVER ROOM SHEET 4 - SHEET 13 OF 14		
			M0174-R1-DH-SC-2122-01	DATA STORAGE RACKS DIAGRAM - SHEET 14 OF 14		
				RING 2 - SCADA RACK DETAILS		
			M0174-R1-DH-SC-2210-01	MY AND GENERATOR BLDG RACK - SHEET 1 OF 19		
			M0174-R1-DH-SC-2211-01	HY AND GENERATOR BLDG RACK - SHEET 2 OF 19		
			M0174-R1-DH-SC-2212-01	REMOTE SUBSTATION BLDG & LV ROOM RACK - SHEET 3 OF 19		
			M0174-R1-DH-SC-2213-01	HY AND GENERATOR BLDG RACK - SHEET 4 OF 19		
			M0174-R1-DH-SC-2214-01	HY AND GENERATOR BLDG RACK 5 - SHEET 5 OF 19		
			M0174-R1-DH-SC-2215-01	HY AND GENERATOR BLDG RACK 6 - SHEET 6 OF 19		
			M0174-R1-DH-SC-2216-01	Maintenance Cleaners & Workers Building Rack - SHEET 8 OF 19		
			M0174-R1-DH-SC-2217-01	BULK FUEL STORAGE RACK - SHEET 9 OF 19		
			M0174-R1-DH-SC-2218-01	REMOTE SUBSTATION BLDG & LV ROOM RACK - SHEET 10 OF 19		
			M0174-R1-DH-SC-2219-01	TANKER FILMING STATION GUARD HOUSE RACK - SHEET 11 OF 19		
			M0174-R1-DH-SC-2220-01	TANKER FILMING STATION GUARD HOUSE RACK - SHEET 12 OF 19		
			M0174-R1-DH-SC-2221-01	TANKER FILMING STATION GUARD HOUSE RACK - SHEET 13 OF 19		
			M0174-R1-DH-SC-2222-01	TANKER FILMING STATION GUARD HOUSE RACK - SHEET 14 OF 19		
			M0174-R1-DH-SC-2223-01	TANKER FILMING STATION MAIN GUARD HOUSE RACK - SHEET 15 OF 19		
			M0174-R1-DH-SC-2224-01	UTILITY PUMPING STATION RACK - SHEET 16 OF 19		
			M0174-R1-DH-SC-2225-01	AUXILIARY PUMPING STATION RACK 1 - SHEET 17 OF 19		
			M0174-R1-DH-SC-2226-01	AUXILIARY PUMPING STATION RACK 1 - SHEET 18 OF 19		
			M0174-R1-DH-SC-2227-01	AUXILIARY PUMPING STATION RACK 12 - SHEET 19 OF 19		
			M0174-R1-DH-SC-2227-01	AUXILIARY PUMPING STATION RACK 2 - SHEET 19 OF 19		
				AUTOMATION DRAWING LIST SHEET 01 OF 04		
					A	
					PRINTING NO. M0174-R1-DH-SC-1000-0000-A	

DRAWING No.	TITLE	REV No.
MQ174-R1-DH-SC-2310-01	RING 3 - SCADA RACK DETAILS	
MQ174-R1-DH-SC-2311-01	INLET DISTRIBUTION CHAMBER KIOSK 1 RACK - SHEET 2 OF 13	A
MQ174-R1-DH-SC-2311-01	SCOUR DRAIN VALVES KIOSK 1 - SHEET 3 OF 13	A
MQ174-R1-DH-SC-2312-01	WOM1 KIOSK RACKS - SHEET 4 OF 13	A
MQ174-R1-DH-SC-2313-01	INLET CHAMBER KIOSK 2 - SHEET 5 OF 13	A
MQ174-R1-DH-SC-2314-01	SCOUR DRAIN VALVES KIOSK 2 - SHEET 6 OF 13	A
MQ174-R1-DH-SC-2315-01	WOM2 KIOSK RACKS - SHEET 7 OF 13	A
MQ174-R1-DH-SC-2316-01	WOM3 KIOSK RACKS - SHEET 8 OF 13	A
MQ174-R1-DH-SC-2317-01	WOM4 KIOSK RACKS - SHEET 9 OF 13	A
MQ174-R1-DH-SC-2318-01	WOM5 KIOSK RACKS - SHEET 10 OF 13	A
MQ174-R1-DH-SC-2319-01	REMOTE SUBSTATION BUILDING 1 RACK - SHEET 11 OF 13	A
MQ174-R1-DH-SC-2320-01	REMOTE SUBSTATION BUILDING 2 RACK - SHEET 12 OF 13	A
MQ174-R1-DH-SC-2321-01	REMOTE GENERATOR BUILDING RACK - SHEET 13 OF 13	A
MQ174-R1-DH-SC-2410-01	RING 4 - SCADA RACK DETAILS	
MQ174-R1-DH-SC-2410-01	OUTLET VALVE KIOSK RACK - SHEET 2 OF 11	A
MQ174-R1-DH-SC-2310-01	RING 3 - SCADA RACK DETAILS	
MQ174-R1-DH-SC-2311-01	INLET DISTRIBUTION CHAMBER KIOSK 1 RACK - SHEET 2 OF 13	A
MQ174-R1-DH-SC-2312-01	SCOUR DRAIN VALVES KIOSK 1 - SHEET 3 OF 13	A
MQ174-R1-DH-SC-2313-01	WOM1 KIOSK RACKS - SHEET 4 OF 13	A
MQ174-R1-DH-SC-2314-01	INLET CHAMBER KIOSK 2 - SHEET 5 OF 13	A
MQ174-R1-DH-SC-2315-01	SCOUR DRAIN VALVES KIOSK 2 - SHEET 6 OF 13	A
MQ174-R1-DH-SC-2316-01	WOM2 KIOSK RACKS - SHEET 7 OF 13	A
MQ174-R1-DH-SC-2317-01	WOM3 KIOSK RACKS - SHEET 8 OF 13	A
MQ174-R1-DH-SC-2318-01	WOM4 KIOSK RACKS - SHEET 9 OF 13	A
MQ174-R1-DH-SC-2319-01	WOM5 KIOSK RACKS - SHEET 10 OF 13	A
MQ174-R1-DH-SC-2320-01	REMOTE SUBSTATION BUILDING 1 RACK - SHEET 11 OF 13	A
MQ174-R1-DH-SC-2321-01	REMOTE SUBSTATION BUILDING 2 RACK - SHEET 12 OF 13	A
MQ174-R1-DH-SC-2321-01	REMOTE GENERATOR BUILDING RACK - SHEET 13 OF 13	A
MQ174-R1-DH-SC-2410-01	RING 4 - SCADA RACK DETAILS	
MQ174-R1-DH-SC-2410-01	OUTLET VALVE KIOSK RACK - SHEET 2 OF 11	A
MQ174-R1-DH-SC-2411-01	OUTLET VALVE KIOSK RACK - SHEET 3 OF 11	A
MQ174-R1-DH-SC-2412-01	CHLORINATION BLDG RACK 1 (ANALYZER ROOM) - SHEET 4 OF 11	A
MQ174-R1-DH-SC-2413-01	CHLORINATION BLDG RACK 2 (ELECTRICAL ROOM) - SHEET 5 OF 11	A
MQ174-R1-DH-SC-2414-01	CHLORINATION BLDG RACK 3 (CHLORINATION ROOM) - SHEET 6 OF 11	A
MQ174-R1-DH-SC-2415-01	CHLORINATION BLDG RACK 4 (CHLORINE FEED ROOM) - SHEET 7 OF 11	A
MQ174-R1-DH-SC-2416-01	SURGE VESSEL KIOSK 1 RACK - SHEET 8 OF 11	A
MQ174-R1-DH-SC-2417-01	AIR COMPRESSOR BLDG RACK - SHEET 9 OF 11	A
MQ174-R1-DH-SC-2418-01	REMOTE SUBSTATION BLDG 3 RACK - SHEET 10 OF 11	A
MQ174-R1-DH-SC-2419-01	SURGE VESSEL KIOSK 2 RACK - SHEET 11 OF 11	A
MQ174-R1-DH-SC-2190-01	RING 1 - CONTROL LEVEL SCHEMATIC DIAGRAMS	
MQ174-R1-DH-SC-2191-01	COMPUTER ROOM NETWORK DIAGRAM - SHEET 2 OF 22	A
MQ174-R1-DH-SC-2191-01	SITE WIDE CONNECTIVITY DIAGRAM - SHEET 3 OF 22	A
MQ174-R1-DH-SC-2192-01	CONTROL ROOM WIRING DIAGRAM - SHEET 4 OF 22	A
MQ174-R1-DH-SC-2193-01	STORAGE NETWORK DIAGRAM - SHEET 5 OF 22	A
MQ174-R1-DH-SC-2194-01	NETWORK DIAGRAM OVERVIEW - SHEET 1 - SHEET 6 OF 22	A
MQ174-R1-DH-SC-2195-01	NETWORK DIAGRAM OVERVIEW - SHEET 2 - SHEET 7 OF 22	A
MQ174-R1-DH-SC-2196-01	PUMPS RACK 1-1 NETWORK DIAGRAM - SHEET 8 OF 22	A
MQ174-R1-DH-SC-2197-01	PUMPS RACK 1-2 NETWORK DIAGRAM - SHEET 9 OF 22	A
MQ174-R1-DH-SC-2198-01	PUMPS RACK 1-3 NETWORK DIAGRAM - SHEET 10 OF 22	A
MQ174-R1-DH-SC-2199-01	TRANSFORMER ROOM RACK - SHEET 11 OF 22	A
MQ174-R1-DH-SC-2200-01	PUMPS RACK 2-1 NETWORK DIAGRAM - SHEET 12 OF 22	A
MQ174-R1-DH-SC-2201-01	PUMPS RACK 2-2 NETWORK DIAGRAM - SHEET 13 OF 22	A
MQ174-R1-DH-SC-2202-01	PUMPS RACK 2-3 NETWORK DIAGRAM - SHEET 14 OF 22	A
MQ174-R1-DH-SC-2203-01	MECHANICAL PLANT 3 RACK - SHEET 15 OF 22	A
MQ174-R1-DH-SC-2204-01	MECHANICAL PLANT 4 RACK - SHEET 16 OF 22	A
MQ174-R1-DH-SC-2205-01	MECHANICAL PLANT 1 RACK - SHEET 17 OF 22	A
MQ174-R1-DH-SC-2206-01	MECHANICAL PLANT 2 RACK - SHEET 18 OF 22	A
MQ174-R1-DH-SC-2167-01	FIELD RACK POWER SUPPLY - SHEET 19 OF 22	A
MQ174-R1-DH-SC-2168-01	CONTROL ROOM POWER SUPPLY MASTER PLC UPS - SHEET 20 OF 22	A
MQ174-R1-DH-SC-2169-01	RACK TO RACK NETWORK DIAGRAM - SHEET 21 OF 22	A
MQ174-R1-DH-SC-2170-01	RACK TO RACK NETWORK DIAGRAM - SHEET 22 OF 22	A

DRAWING No.	TITLE	REV No.
MQ174-R1-DH-SC-2230-01	RING 2 - CONTROL LEVEL SCHEMATIC DIAGRAMS	
MQ174-R1-DH-SC-2231-01	NETWORK DIAGRAM OVERVIEW - SHEET 1 - SHEET 2 OF 21	A
MQ174-R1-DH-SC-2232-01	NETWORK DIAGRAM OVERVIEW - SHEET 2 - SHEET 3 OF 21	A
MQ174-R1-DH-SC-2233-01	MV AND GENERATOR BLDG (SWITCHGEAR ROOM) - SHEET 4 OF 21	A
MQ174-R1-DH-SC-2234-01	MV AND GENERATOR BLDG (GMDB ROOM) - SHEET 5 OF 21	A
MQ174-R1-DH-SC-2234-01	MV AND GENERATOR BLDG (SWITCHGEAR LVI) - SHEET 6 OF 21	A
MQ174-R1-DH-SC-2235-01	MV AND GENERATOR BLDG (GENSET ROOM) - SHEET 7 OF 21	A
MQ174-R1-DH-SC-2236-01	MV AND GENERATOR BLDG (SWITCHGEAR ROOM) - SHEET 8 OF 21	A
MQ174-R1-DH-SC-2237-01	MV AND GENERATOR BLDG (GENSET CONTROL ROOM) - SHEET 9 OF 21	A
MQ174-R1-DH-SC-2238-01	MAINTENANCE/CLEANERS/WORKERS BUILDING - SHEET 10 OF 21	A
MQ174-R1-DH-SC-2239-01	BULK FUEL STORAGE KIOSK - SHEET 11 OF 21	A
MQ174-R1-DH-SC-2240-01	REMOTE SUBSTATION BUILDING 4 LV ROOM - SHEET 12 OF 21	A
MQ174-R1-DH-SC-2241-01	REMOTE SUBSTATION BUILDING 4 MV ROOM - SHEET 13 OF 21	A
MQ174-R1-DH-SC-2242-01	TANKER FILLING STATION GUARD HOUSE 1 - SHEET 14 OF 21	A
MQ174-R1-DH-SC-2243-01	TANKER FILLING STATION CONTROL ROOM - SHEET 15 OF 21	A
MQ174-R1-DH-SC-2244-01	TANKER FILLING STATION GUARD HOUSE 2 - SHEET 16 OF 21	A
MQ174-R1-DH-SC-2245-01	TANKER FILLING STATION MAIN GUARD HOUSE - SHEET 17 OF 21	A
MQ174-R1-DH-SC-2246-01	WATER TESTING FACILITY - SHEET 18 OF 21	A
MQ174-R1-DH-SC-2247-01	UTILITY PUMPING STATION - SHEET 19 OF 21	A
MQ174-R1-DH-SC-2248-01	AUXILIARY PUMPING STATION RACK 1 - SHEET 20 OF 21	A
MQ174-R1-DH-SC-2249-01	AUXILIARY PUMPING STATION RACK 2 - SHEET 21 OF 21	A
MQ174-R1-DH-SC-2330-01	RING 3 - CONTROL LEVEL SCHEMATIC DIAGRAMS	
MQ174-R1-DH-SC-2331-01	NETWORK DIAGRAM OVERVIEW - SHEET1 - SHEET 2 OF 15	A
MQ174-R1-DH-SC-2332-01	INLET CHAMBER KIOSK 1 - SHEET 4 OF 15	A
MQ174-R1-DH-SC-2333-01	SCOUR DRAIN VALVES KIOSK 1 - SHEET 5 OF 15	A
MQ174-R1-DH-SC-2334-01	WOM1 KIOSK RACK - SHEET 6 OF 15	A
MQ174-R1-DH-SC-2335-01	INLET CHAMBER KIOSK 2 - SHEET 7 OF 15	A
MQ174-R1-DH-SC-2336-01	SCOUR DRAIN VALVES KIOSK 2 - SHEET 8 OF 15	A
MQ174-R1-DH-SC-2337-01	WOM6 KIOSK RACK - SHEET 9 OF 15	A
MQ174-R1-DH-SC-2338-01	WOM3 KIOSK RACK - SHEET 10 OF 15	A
MQ174-R1-DH-SC-2339-01	WOM5 KIOSK RACK - SHEET 11 OF 15	A
MQ174-R1-DH-SC-2340-01	WOM5 KIOSK RACK - SHEET 12 OF 15	A
MQ174-R1-DH-SC-2341-01	REMOTE SUBSTATION BUILDING 1 - SHEET 13 OF 15	A
MQ174-R1-DH-SC-2342-01	REMOTE SUBSTATION BUILDING 2 - SHEET 14 OF 15	A
MQ174-R1-DH-SC-2343-01	REMOTE GENERATOR BUILDING 1 - SHEET 15 OF 15	A
MQ174-R1-DH-SC-2430-01	RING 4 - CONTROL LEVEL SCHEMATIC DIAGRAMS	
MQ174-R1-DH-SC-2431-01	NETWORK DIAGRAM OVERVIEW - SHEET 2 OF 13	A
MQ174-R1-DH-SC-2432-01	OUTLET VALVE KIOSK RACK 1 - SHEET 3 OF 13	A
MQ174-R1-DH-SC-2433-01	OUTLET VALVE KIOSK RACK 2 - SHEET 4 OF 13	A
MQ174-R1-DH-SC-2434-01	CHLORINATION BUILDING RACK 1 (ANALYZER'S ROOM) - SHEET 5 OF 13	A
MQ174-R1-DH-SC-2434-01	CHLORINATION BUILDING RACK 2 (ELECTRICAL ROOM) - SHEET 6 OF 13	A
MQ174-R1-DH-SC-2435-01	CHLORINATION BUILDING RACK 3 (CHLORINATION ROOM) - SHEET 7 OF 13	A
MQ174-R1-DH-SC-2436-01	CHLORINATION BUILDING RACK 4 (CHLORINE FEED ROOM) - SHEET 8 OF 13	A
MQ174-R1-DH-SC-2437-01	SURGE VESSEL KIOSK 1 - SHEET 9 OF 13	A
MQ174-R1-DH-SC-2438-01	AIR COMPRESSOR BUILDING RACK - SHEET 10 OF 13	A
MQ174-R1-DH-SC-2439-01	REMOTE SUBSTATION BUILDING 3 (LV ROOM) - SHEET 11 OF 13	A
MQ174-R1-DH-SC-2440-01	REMOTE SUBSTATION BUILDING 3 RACK (MV ROOM) - SHEET 12 OF 13	A
MQ174-R1-DH-SC-2441-01	SURGE VESSEL KIOSK 2 - SHEET 13 OF 13	A
MQ174-R1-DH-SC-2160-01	RING 1 - FIELD LEVEL SCADA SCHEMATIC DIAGRAMS	
MQ174-R1-DH-SC-2161-01	PLC-MPS-10/1 SS1A PUMPS - SHEET 2 OF 8	A
MQ174-R1-DH-SC-2162-01	PLC-MPS-10/2 SS1B PUMPS - SHEET 3 OF 8	A
MQ174-R1-DH-SC-2162-01	PLC-MPS-3B/1 SS1A PUMPS - SHEET 4 OF 8	A
MQ174-R1-DH-SC-2163-01	PLC-MPS-4/3 SS1A INLET VALVES - SHEET 5 OF 8	A
MQ174-R1-DH-SC-2164-01	PLC-MPS-5/3 SS1A OUTLET VALVES - SHEET 6 OF 8	A
MQ174-R1-DH-SC-2165-01	PLC-MPS-6/3 SS1B OUTLET VALVES - SHEET 7 OF 8	A
MQ174-R1-DH-SC-2166-01	PLC-MPS-7B/1 SS1B INLET VALVES - SHEET 8 OF 8	A
MQ174-R1-DH-SC-2260-01	RING 2 - FIELD LEVEL SCADA SCHEMATIC DIAGRAMS	
MQ174-R1-DH-SC-2261-01	PLC-TFS-1A/1 EMERGENCY TANKER STATION - SHEET 2 OF 10	A
MQ174-R1-DH-SC-2261-01	PLC-TFS-1A/2 EMERGENCY TANKER STATION - SHEET 3 OF 10	A
MQ174-R1-DH-SC-2262-01	PLC-TFS-1A/3 FIRE FIGHTING NETWORK - SHEET 4 OF 10	A
MQ174-R1-DH-SC-2263-01	PLC-TFS-1B/1 IRRIGATION NETWORK - SHEET 5 OF 10	A

ISSUED FOR TENDER	BS	DM	LS
Start Date	Revision Details	Dra	Chk App
Status			
TENDER			
Scale	NTS (A1) NTS (A3)	Current Issue Signatures	
Original Size	A1	Drawer	B.SANTOS
Date	QHND	Approver	L STEPHENS
Project	UTM - 39N	Date	HAR 2014
File Name	MQ174-R1-DH-SC-0031-K01.xls		
Client	 KAHRWA MAA - 1st Phase Construction Project - KSA		
Project Code	GTC 626/2014		
Project	WATER SECURITY MEGA RESERVOIRS PACKAGE A PRPS 1 - UMM BIRKA		
Title	AUTOMATION DRAWING LIST SHEET 02 OF 04		
Drawing No.	MQ174-R1 - DH - GE - 0031		
Rev	A		

DRAWING No.	TITLE	DRAWING No.	TITLE	REV No.
MA0174-R-DH-SC-2264-01	PIC-TFS-IC/1 PORTABLE WATER NETWORK - SHEET 6 OF 10	MA0174-R-DH-SC-2264-01	RING 3 - HYAC SCADA SCHEMATIC DIAGRAMS	A
MA0174-R-DH-SC-2265-01	PIC-LPS-1/UTILITY PUMPING STATION - SHEET 1 OF 10	MA0174-R-DH-SC-2265-01	PLC-ICR-1A/3 INLET DISTRIBUTION CHAMBER KIOSK 1 - SHEET 1 OF 13	A
MA0174-R-DH-SC-2265-01	PIC-APS-1A/1 DRAIN DOWN PUMPS - SHEET 8 OF 10	MA0174-R-DH-SC-2265-01	PLC-SDVK-1A/2 SCOUR DRAIN VALVE KIOSK 1 - SHEET 1 OF 13	A
MA0174-R-DH-SC-2265-01	PIC-APS-2A/1 RECYCLING PUMP - SHEET 10 OF 10	MA0174-R-DH-SC-2265-01	PLC-IEK-1A/3 INLET CHAMBER KIOSK 2 - SHEET 5 OF 13	A
RING 3 - FIELD LEVEL SCADA SCHEMATIC DIAGRAMS				
MA0174-R-DH-SC-2360-01	PIC-LCK-1A/1 INLET DISTRIBUTION CHAMBER - SHEET 2 OF 21	MA0174-R-DH-SC-2360-01	PLC-SDVK-1A/2 SCOUR DRAIN VALVE KIOSK 2 - SHEET 6 OF 13	A
MA0174-R-DH-SC-2361-01	PIC-SVX-1B/2 SURFACE VESSEL VALVES KIOSK 1 - SHEET 1 OF 21	MA0174-R-DH-SC-2361-01	PLC-WORK-1A/2 WATER DUALITY MONITORING KIOSK 2 - SHEET 7 OF 13	A
MA0174-R-DH-SC-2361-01	PIC-WORK-1C/2 RESERVOIR 1 CELL 1 - SHEET 6 OF 21	MA0174-R-DH-SC-2361-01	PLC-WORK-1A/2 WATER DUALITY MONITORING KIOSK 3 - SHEET 8 OF 13	A
MA0174-R-DH-SC-2361-01	PIC-WORK-1C/2 RESERVOIR 1 CELL 2 - SHEET 5 OF 21	MA0174-R-DH-SC-2361-01	PLC-WORK-1A/2 WATER DUALITY MONITORING KIOSK 4 - SHEET 9 OF 13	A
MA0174-R-DH-SC-2361-01	PIC-WORK-1C/3 RESERVOIR 1 CELL 3 - SHEET 6 OF 21	MA0174-R-DH-SC-2361-01	PLC-WORK-1A/2 WATER DUALITY MONITORING KIOSK 5 - SHEET 10 OF 13	A
MA0174-R-DH-SC-2361-01	PIC-LCK-1A/1 INLET DISTRIBUTION CHAMBER 1 - SHEET 1 OF 21	MA0174-R-DH-SC-2361-01	PLC-SDVK-1B/2 SURFACE VESSEL VALVES KIOSK 1 - SHEET 11 OF 13	A
MA0174-R-DH-SC-2361-01	PIC-SVX-1B/2 SURFACE VESSEL VALVES KIOSK 2 - SHEET 8 OF 21	MA0174-R-DH-SC-2361-01	PLC-SDVK-1B/2 SURFACE VESSEL VALVES KIOSK 3 - SHEET 12 OF 13	A
MA0174-R-DH-SC-2361-01	PIC-SVX-1B/2 SURFACE VESSEL VALVES KIOSK 4 - SHEET 13 OF 13	MA0174-R-DH-SC-2361-01	PLC-SDVK-1B/2 SURFACE VESSEL VALVES KIOSK 5 - SHEET 14 OF 13	A
RING 4 - HVAC SCADA SCHEMATIC DIAGRAMS				
MA0174-R-DH-SC-2362-01	PIC-LCK-1B/2 SCOUR DRAIN VALVE KIOSK 2 - SHEET 9 OF 21	MA0174-R-DH-SC-2362-01	PLC-DWV-2A/2 OUTLET VALVE KIOSK - SHEET 1 OF 6	A
MA0174-R-DH-SC-2362-01	PIC-WORK-1D/2 RESERVOIR 2 CELL 1 - SHEET 10 OF 21	MA0174-R-DH-SC-2362-01	PLC-CH-2B/2 CHLORINATION BUILDING KIOSK 2 - SHEET 3 OF 8	A
MA0174-R-DH-SC-2362-01	PIC-WORK-1D/2 RESERVOIR 2 CELL 2 - SHEET 11 OF 21	MA0174-R-DH-SC-2362-01	PLC-SVX-1B/1 SURFACE VESSEL VALVE KIOSK 1 - SHEET 4 OF 8	A
MA0174-R-DH-SC-2370-01	PIC-WORK-1C/3 RESERVOIR 2 CELL 3 - SHEET 12 OF 21	MA0174-R-DH-SC-2370-01	PLC-LCK-1A/1 AIR COMPRESSOR BUILDING RACK - SHEET 5 OF 8	A
MA0174-R-DH-SC-2370-01	PIC-WORK-1C/3 RESERVOIR 3 CELL 1 - SHEET 13 OF 21	MA0174-R-DH-SC-2370-01	PLC-PS-1B/1 AIR COMPRESSOR SUBSTATION BUILDING 3 - SHEET 1 OF 8	A
MA0174-R-DH-SC-2370-01	PIC-WORK-1C/2 RESERVOIR 3 CELL 2 - SHEET 14 OF 21	MA0174-R-DH-SC-2370-01	PLC-HPS-1B/1 REMOTE SUBSTATION BUILDING 4 & RV ROOM - SHEET 1 OF 8	A
MA0174-R-DH-SC-2370-01	PIC-WORK-1C/3 RESERVOIR 3 CELL 3 - SHEET 15 OF 21	MA0174-R-DH-SC-2370-01	PLC-SVX-2B/1 SURFACE VESSEL VALVE KIOSK 2 - SHEET 8 OF 8	A
MA0174-R-DH-SC-2370-01	PIC-WORK-1C/2 RESERVOIR 4 CELL 1 - SHEET 16 OF 21	MA0174-R-DH-SC-2370-01	PIC-LCK-1C/2 SURFACE VESSEL VALVE KIOSK 1 - SHEET 17 OF 21	A
MA0174-R-DH-SC-2370-01	PIC-WORK-1C/3 RESERVOIR 4 CELL 2 - SHEET 17 OF 21	MA0174-R-DH-SC-2370-01	PIC-LCK-1C/3 SURFACE VESSEL VALVE KIOSK 2 - SHEET 18 OF 21	A
MA0174-R-DH-SC-2370-01	PIC-WORK-1C/4 RESERVOIR 5 CELL 1 - SHEET 19 OF 21	MA0174-R-DH-SC-2370-01	PIC-LCK-1C/4 SURFACE VESSEL VALVE KIOSK 3 - SHEET 20 OF 21	A
MA0174-R-DH-SC-2370-01	PIC-WORK-1C/5 RESERVOIR 5 CELL 2 - SHEET 21 OF 21	MA0174-R-DH-SC-2370-01	PIC-LCK-1C/5 SURFACE VESSEL VALVE KIOSK 4 - SHEET 21 OF 21	A
RING 5 - FIELD LEVEL SCADA SCHEMATIC DIAGRAMS				
MA0174-R-DH-SC-2460-01	PIC-LCK-1A/1 OUTLET VALVE KIOSK PUMPS - SHEET 2 OF 13	MA0174-R-DH-SC-2460-01	PLC-PS-2A/2 MAIN PUMPING STATION - SHEET 1 OF 13	A
MA0174-R-DH-SC-2460-01	PIC-LCK-1A/2 OUTLET VALVE KIOSK PUMPS - SHEET 3 OF 13	MA0174-R-DH-SC-2460-01	PLC-PS-2A/3 MAIN PUMPING STATION - SHEET 2 OF 13	A
MA0174-R-DH-SC-2462-01	PIC-LCK-1A/3 OUTLET VALVE KIOSK PUMPS - SHEET 4 OF 13	MA0174-R-DH-SC-2462-01	PLC-PS-2A/4 MAIN PUMPING STATION - SHEET 3 OF 13	A
MA0174-R-DH-SC-2463-01	PIC-LCK-1B/1 OUTLET VALVE KIOSK PUMPS - SHEET 5 OF 13	MA0174-R-DH-SC-2463-01	PLC-PS-2A/5 MAIN PUMPING STATION - SHEET 4 OF 13	A
MA0174-R-DH-SC-2463-01	PIC-LCK-1B/2 OUTLET VALVE KIOSK PUMPS - SHEET 6 OF 13	MA0174-R-DH-SC-2463-01	PLC-PS-2A/6 MAIN PUMPING STATION - SHEET 5 OF 13	A
MA0174-R-DH-SC-2464-01	PIC-LCK-1B/3 OUTLET VALVE KIOSK PUMPS - SHEET 7 OF 13	MA0174-R-DH-SC-2464-01	PLC-PS-2A/7 MAIN PUMPING STATION - SHEET 6 OF 13	A
MA0174-R-DH-SC-2464-01	PIC-LCK-1B/4 OUTLET VALVE KIOSK PUMPS - SHEET 8 OF 13	MA0174-R-DH-SC-2464-01	PLC-PS-2A/8 MAIN PUMPING STATION - SHEET 7 OF 13	A
MA0174-R-DH-SC-2464-01	PIC-LCK-1B/5 OUTLET VALVE KIOSK PUMPS - SHEET 9 OF 13	MA0174-R-DH-SC-2464-01	PLC-PS-2A/9 MAIN PUMPING STATION - SHEET 8 OF 13	A
MA0174-R-DH-SC-2465-01	PIC-LCK-1C/1 CHLORINATION PLANT - SHEET 1 OF 13	MA0174-R-DH-SC-2465-01	PLC-PS-2A/10 MAIN PUMPING STATION - SHEET 9 OF 13	A
MA0174-R-DH-SC-2465-01	PIC-LCK-1C/2 SURFACE VESSEL VALVE KIOSK 1 - SHEET 10 OF 13	MA0174-R-DH-SC-2465-01	PLC-PS-2A/11 MAIN PUMPING STATION - SHEET 10 OF 13	A
MA0174-R-DH-SC-2465-01	PIC-SVX-1A/2 SURFACE VESSEL VALVE KIOSK 1 - SHEET 11 OF 13	MA0174-R-DH-SC-2465-01	PLC-PS-2A/12 MAIN PUMPING STATION - SHEET 11 OF 13	A
MA0174-R-DH-SC-2465-01	PIC-AB-1A/2 AIR COMPRESSOR BUILDING - SHEET 12 OF 13	MA0174-R-DH-SC-2465-01	PLC-PS-2A/13 SURFACE VESSEL VALVE KIOSK 2 - SHEET 12 OF 13	A
MA0174-R-DH-SC-2465-01	PIC-SVX-2A/2 SURFACE VESSEL VALVE KIOSK 2 - SHEET 13 OF 13	MA0174-R-DH-SC-2465-01	PLC-CH-3A/1 MAINTENANCE CLEANERS WORKSHOP BUILDING - SHEET 13 OF 21	A
RING 1-HVAC SCADA SCHEMATIC DIAGRAMS				
MA0174-R-DH-SC-2467-01	PLC-LPS-2B TRANSFORMER RACK 01 - SHEET 1 OF 8	MA0174-R-DH-SC-2467-01	PLC-HVGS-5A/1 HV AND GENERATOR BLDG SWITCHGEAR RLY - SHEET 1 OF 21	A
MA0174-R-DH-SC-2468-01	PLC-SVX-1A/2 PUMPS RACK 1 - SHEET 1 OF 8	MA0174-R-DH-SC-2468-01	PLC-HVGS-5A/1 HV AND GENERATOR BLDG SWITCHGEAR ROOM - SHEET 6 OF 21	A
MA0174-R-DH-SC-2469-01	PLC-SVX-1A/2 SURFACE VESSEL VALVE KIOSK 1 - SHEET 1 OF 13	MA0174-R-DH-SC-2469-01	PLC-HVGS-5A/2 HV AND GENERATOR BLDG SWITCHGEAR ROOM - SHEET 7 OF 21	A
MA0174-R-DH-SC-2470-01	PLC-AB-1A/2 AIR COMPRESSOR BUILDING - SHEET 12 OF 13	MA0174-R-DH-SC-2470-01	PLC-HVGS-5A/3 HV AND GENERATOR BLDG GEYSSET CONTROL ROOM - SHEET 8 OF 21	A
MA0174-R-DH-SC-2471-01	PLC-SVX-2A/2 SURFACE VESSEL VALVE KIOSK 2 - SHEET 13 OF 13	MA0174-R-DH-SC-2471-01	PLC-HVGS-5A/4 HV AND GENERATOR BLDG GEYSSET ROOM - SHEET 9 OF 21	A
RING 2 - ELECTRICAL SCADA SCHEMATIC DIAGRAMS				
MA0174-R-DH-SC-2210-01	PLC-LPS-2A/1 SWITCHGEAR ROOM - SHEET 1 OF 21	MA0174-R-DH-SC-2210-01	PLC-HVGS-5A/5 HV AND GENERATOR BLDG SWITCHGEAR ROOM - SHEET 10 OF 21	A
MA0174-R-DH-SC-2210-01	PLC-LPS-2A/2 SWITCHGEAR ROOM - SHEET 2 OF 21	MA0174-R-DH-SC-2210-01	PLC-HVGS-5A/6 HV AND GENERATOR BLDG SWITCHGEAR ROOM - SHEET 11 OF 21	A
MA0174-R-DH-SC-2210-01	PLC-LPS-2A/3 SWITCHGEAR ROOM - SHEET 3 OF 21	MA0174-R-DH-SC-2210-01	PLC-HVGS-5A/7 HV AND GENERATOR BLDG SWITCHGEAR ROOM - SHEET 12 OF 21	A
MA0174-R-DH-SC-2210-01	PLC-LPS-2A/4 SWITCHGEAR ROOM - SHEET 4 OF 21	MA0174-R-DH-SC-2210-01	PLC-HVGS-5A/8 HV AND GENERATOR BLDG SWITCHGEAR ROOM - SHEET 13 OF 21	A
MA0174-R-DH-SC-2210-01	PLC-LPS-2A/5 SWITCHGEAR ROOM - SHEET 5 OF 21	MA0174-R-DH-SC-2210-01	PLC-HVGS-5A/9 HV AND GENERATOR BLDG SWITCHGEAR ROOM - SHEET 14 OF 21	A
MA0174-R-DH-SC-2210-01	PLC-LPS-2A/6 SWITCHGEAR ROOM - SHEET 6 OF 21	MA0174-R-DH-SC-2210-01	PLC-HVGS-5A/10 HV AND GENERATOR BLDG SWITCHGEAR ROOM - SHEET 15 OF 21	A
RING 3 - ELECTRICAL SCADA SCHEMATIC DIAGRAMS				
MA0174-R-DH-SC-2210-01	PLC-ICR-1A/2 INLET DISTRIBUTION CHAMBER KIOSK 1 - SHEET 2 OF 15	MA0174-R-DH-SC-2210-01	PLC-HVGS-5A/11 HV AND SURFACE VESSEL VALVE KIOSK 1 - SHEET 1 OF 15	A
MA0174-R-DH-SC-2210-01	PLC-ICR-1A/3 INLET DISTRIBUTION CHAMBER KIOSK 2 - SHEET 3 OF 15	MA0174-R-DH-SC-2210-01	PLC-HVGS-5A/12 HV AND SURFACE VESSEL VALVE KIOSK 2 - SHEET 2 OF 15	A
MA0174-R-DH-SC-2210-01	PLC-ICR-1A/4 INLET DISTRIBUTION CHAMBER KIOSK 3 - SHEET 4 OF 15	MA0174-R-DH-SC-2210-01	PLC-HVGS-5A/13 HV AND SURFACE VESSEL VALVE KIOSK 3 - SHEET 3 OF 15	A
MA0174-R-DH-SC-2210-01	PLC-ICR-1A/5 INLET DISTRIBUTION CHAMBER KIOSK 4 - SHEET 5 OF 15	MA0174-R-DH-SC-2210-01	PLC-HVGS-5A/14 HV AND SURFACE VESSEL VALVE KIOSK 4 - SHEET 4 OF 15	A
MA0174-R-DH-SC-2210-01	PLC-ICR-1A/6 INLET DISTRIBUTION CHAMBER KIOSK 5 - SHEET 6 OF 15	MA0174-R-DH-SC-2210-01	PLC-HVGS-5A/15 HV AND SURFACE VESSEL VALVE KIOSK 5 - SHEET 5 OF 15	A
RING 4 - HVAC SCADA SCHEMATIC DIAGRAMS				
MA0174-R-DH-SC-2210-01	PLC-LPS-2A/1 TANKER FILING STATION - SHEET 1 OF 21	MA0174-R-DH-SC-2210-01	PLC-HPS-1A/1 TANKER FILING STATION - SHEET 17 OF 21	A
MA0174-R-DH-SC-2210-01	PLC-LPS-2A/2 TANKER FILING STATION - SHEET 2 OF 21	MA0174-R-DH-SC-2210-01	PLC-HPS-1A/2 TANKER FILING STATION - SHEET 18 OF 21	A
MA0174-R-DH-SC-2210-01	PLC-LPS-2A/3 TANKER FILING STATION - SHEET 3 OF 21	MA0174-R-DH-SC-2210-01	PLC-HPS-1A/3 TANKER FILING STATION - SHEET 19 OF 21	A
MA0174-R-DH-SC-2210-01	PLC-LPS-2A/4 TANKER FILING STATION - SHEET 4 OF 21	MA0174-R-DH-SC-2210-01	PLC-HPS-1A/4 TANKER FILING STATION - SHEET 20 OF 21	A
MA0174-R-DH-SC-2210-01	PLC-LPS-2A/5 TANKER FILING STATION - SHEET 5 OF 21	MA0174-R-DH-SC-2210-01	PLC-HPS-1A/5 TANKER FILING STATION - SHEET 21 OF 21	A
RING 5 - ELECTRICAL SCADA SCHEMATIC DIAGRAMS				
MA0174-R-DH-SC-2210-01	PLC-ICR-1A/2 INLET DISTRIBUTION CHAMBER KIOSK 1 - SHEET 2 OF 15	MA0174-R-DH-SC-2210-01	PLC-HPS-1A/6 TANKER FILING STATION - SHEET 1 OF 21	A
MA0174-R-DH-SC-2210-01	PLC-ICR-1A/3 INLET DISTRIBUTION CHAMBER KIOSK 2 - SHEET 3 OF 15	MA0174-R-DH-SC-2210-01	PLC-HPS-1A/7 TANKER FILING STATION - SHEET 2 OF 21	A
MA0174-R-DH-SC-2210-01	PLC-ICR-1A/4 INLET DISTRIBUTION CHAMBER KIOSK 3 - SHEET 4 OF 15	MA0174-R-DH-SC-2210-01	PLC-HPS-1A/8 TANKER FILING STATION - SHEET 3 OF 21	A
MA0174-R-DH-SC-2210-01	PLC-ICR-1A/5 INLET DISTRIBUTION CHAMBER KIOSK 4 - SHEET 5 OF 15	MA0174-R-DH-SC-2210-01	PLC-HPS-1A/9 TANKER FILING STATION - SHEET 4 OF 21	A
MA0174-R-DH-SC-2210-01	PLC-ICR-1A/6 INLET DISTRIBUTION CHAMBER KIOSK 5 - SHEET 6 OF 15	MA0174-R-DH-SC-2210-01	PLC-HPS-1A/10 TANKER FILING STATION - SHEET 5 OF 21	A
RING 6 - HVAC SCADA SCHEMATIC DIAGRAMS				
MA0174-R-DH-SC-2210-01	PLC-LPS-2A/1 TANKER FILING STATION - SHEET 1 OF 21	MA0174-R-DH-SC-2210-01	PLC-HPS-1A/11 TANKER FILING STATION - SHEET 6 OF 21	A
MA0174-R-DH-SC-2210-01	PLC-LPS-2A/2 TANKER FILING STATION - SHEET 2 OF 21	MA0174-R-DH-SC-2210-01	PLC-HPS-1A/12 TANKER FILING STATION - SHEET 7 OF 21	A
MA0174-R-DH-SC-2210-01	PLC-LPS-2A/3 TANKER FILING STATION - SHEET 3 OF 21	MA0174-R-DH-SC-2210-01	PLC-HPS-1A/13 TANKER FILING STATION - SHEET 8 OF 21	A
MA0174-R-DH-SC-2210-01	PLC-LPS-2A/4 TANKER FILING STATION - SHEET 4 OF 21	MA0174-R-DH-SC-2210-01	PLC-HPS-1A/14 TANKER FILING STATION - SHEET 9 OF 21	A
MA0174-R-DH-SC-2210-01	PLC-LPS-2A/5 TANKER FILING STATION - SHEET 5 OF 21	MA0174-R-DH-SC-2210-01	PLC-HPS-1A/15 TANKER FILING STATION - SHEET 10 OF 21	A
MA0174-R-DH-SC-2210-01	PLC-LPS-2A/6 TANKER FILING STATION - SHEET 6 OF 21	MA0174-R-DH-SC-2210-01	PLC-HPS-1A/16 TANKER FILING STATION - SHEET 11 OF 21	A
MA0174-R-DH-SC-2210-01	PLC-LPS-2A/7 TANKER FILING STATION - SHEET 7 OF 21	MA0174-R-DH-SC-2210-01	PLC-HPS-1A/17 TANKER FILING STATION - SHEET 12 OF 21	A
MA0174-R-DH-SC-2210-01	PLC-LPS-2A/8 TANKER FILING STATION - SHEET 8 OF 21	MA0174-R-DH-SC-2210-01	PLC-HPS-1A/18 TANKER FILING STATION - SHEET 13 OF 21	A
MA0174-R-DH-SC-2210-01	PLC-LPS-2A/9 TANKER FILING STATION - SHEET 9 OF 21	MA0174-R-DH-SC-2210-01	PLC-HPS-1A/19 TANKER FILING STATION - SHEET 14 OF 21	A
MA0174-R-DH-SC-2210-01	PLC-LPS-2A/10 TANKER FILING STATION - SHEET 10 OF 21	MA0174-R-DH-SC-2210-01	PLC-HPS-1A/20 TANKER FILING STATION - SHEET 15 OF 21	A
MA0174-R-DH-SC-2210-01	PLC-LPS-2A/11 TANKER FILING STATION - SHEET 11 OF 21	MA0174-R-DH-SC-2210-01	PLC-HPS-1A/21 TANKER FILING STATION - SHEET 16 OF 21	A
MA0174-R-DH-SC-2210-01	PLC-LPS-2A/12 TANKER FILING STATION - SHEET 12 OF 21	MA0174-R-DH-SC-2210-01	PLC-HPS-1A/22 TANKER FILING STATION - SHEET 17 OF 21	A
MA0174-R-DH-SC-2210-01	PLC-LPS-2A/13 TANKER FILING STATION - SHEET 13 OF 21	MA0174-R-DH-SC-2210-01	PLC-HPS-1A/23 TANKER FILING STATION - SHEET 18 OF 21	A
MA0174-R-DH-SC-2210-01	PLC-LPS-2A/14 TANKER FILING STATION - SHEET 14 OF 21	MA0174-R-DH-SC-2210-01	PLC-HPS-1A/24 TANKER FILING STATION - SHEET 19 OF 21	A
MA0174-R-DH-SC-2210-01	PLC-LPS-2A/15 TANKER FILING STATION - SHEET 15 OF 21	MA0174-R-DH-SC-2210-01	PLC-HPS-1A/25 TANKER FILING STATION - SHEET 20 OF 21	A
MA0174-R-DH-SC-2210-01	PLC-LPS-2A/16 TANKER FILING STATION - SHEET 16 OF 21	MA0174-R-DH-SC-2210-01	PLC-HPS-1A/26 TANKER FILING STATION - SHEET 21 OF 21	A

DRAWING No.	TITLE	REV No.
HQ174-R1-DH-SC-23105-01	PLC-WQM2-1A/1 WATER QUALITY MONITORING 2 - SHEET 7 OF 15	A
HQ174-R1-DH-SC-23106-01	PLC-WQM3-1A/1 WATER QUALITY MONITORING 3 - SHEET 8 OF 15	A
HQ174-R1-DH-SC-23107-01	PLC-WQM4-1A/1 WATER QUALITY MONITORING 4 - SHEET 9 OF 15	A
HQ174-R1-DH-SC-23108-01	PLC-WQM5-1A/1 WATER QUALITY MONITORING 5 - SHEET 10 OF 15	A
HQ174-R1-DH-SC-23109-01	PLC-RS1-1A/1 REMOTE SUBSTATION 1 SHEET 1 - SHEET 11 OF 15	A
HQ174-R1-DH-SC-23110-01	PLC-RS1-1A/2 REMOTE SUBSTATION 1 SHEET 2 - SHEET 12 OF 15	A
HQ174-R1-DH-SC-23111-01	PLC-RS2-1A/1 REMOTE SUBSTATION 2 - SHEET 13 OF 15	A
HQ174-R1-DH-SC-23112-01	PLC-RS2-1A/2 REMOTE SUBSTATION 2 - SHEET 14 OF 15	A
HQ174-R1-DH-SC-23113-01	PLC-RG1-1A/1 REMOTE GENERATOR BUILDING 1 - SHEET 15 OF 15	A
RING A - ELECTRICAL SCADA SCHEMATIC DIAGRAMS		
HQ174-R1-DH-SC-24100-01	PLC-OVK-2/1 OUTLET VALVE KIOSK - SHEET 2 OF 9	A
HQ174-R1-DH-SC-24101-01	PLC-CHL-2/1 CHLORINATION BUILDING - SHEET 3 OF 9	A
HQ174-R1-DH-SC-24102-01	PLC-SVK1-1B/2 SURGE VESSEL KIOSK 1 - SHEET 4 OF 9	A
HQ174-R1-DH-SC-24103-01	PLC-ACB-1B/1 AIR COMPRESSOR BUILDING - SHEET 5 OF 9	A
HQ174-R1-DH-SC-24104-01	PLC-ACB-1B/2 AIR COMPRESSOR BUILDING - SHEETS 6 OF 9	A
HQ174-R1-DH-SC-24105-01	PLC-RS3-1A/1 REMOTE SUBSTATION 3 - SHEET 7 OF 9	A
HQ174-R1-DH-SC-24106-01	PLC-RS3-1A/2 REMOTE SUBSTATION 3 - SHEET 8 OF 9	A
HQ174-R1-DH-SC-24107-01	PLC-SVK2-1A/1 SURGE VESSEL KIOSK 2 - SHEET 9 OF 9	A

A ROMANA	ISSUED FOR TENDER	BS	DM	LS
Rev. Date	Review Details	Drawn	Checkd	Appd
Status				
TENDER				
Scale	NTS (A1) NTS (A3)	Current Issue Signatures		
Original Size	A1	Drawn	B.SANTOS	
Date	QHHD	Checker	D.MONTERO	
Projection	UTM - 39N	Approver	L.STEPHENS	
PlanRef:	HQ174-R1-DH-SC-0033-A.dwg			
Client:	 KAHRMA General Contracting Company Doha, Qatar			
Project Code				
GTC 626/2014				
Project				
WATER SECURITY MEGA RESERVOIRS PACKAGE A PRPS 1 - UMM BIRKA				
Title				
AUTOMATION DRAWING LIST SHEET 04 OF 04				
Drawing No.				Rev
HQ174-R1-DH-SC-0033-A.dwg				A

## **SECTION 15: APPENDIX G**

### **MATERIALS EQUIPMENT SUPPLIED BY KAHRAMAA**



**Qatar General Electricity & Water Corporation**  
Tender NO. GTC 626/2014  
**Construction of Mega Reservoir PRPSs**  
**(Packages A, B, C, D & E)**

## **APPENDIX G**

### **MATERIALS SUPPLIED BY** **KAHRAMAA** **(NOT APPLICABLE)**

## SECTION 16: APPENDIX H CONTRACT EXECUTION PLAN



**Qatar General Electricity & Water Corporation**  
Tender NO. GTC 626/2014  
**Construction of Mega Reservoir PRPSs**  
**(Packages A, B, C, D & E)**

## **APPENDIX H**

## **CONTRACT EXECUTION PLAN**





## **APPENDIX - H**

### **CONTRACT EXECUTION PLAN**

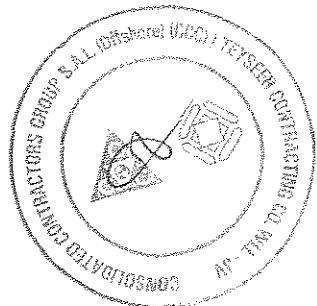
In this **Appendix**, Tenderer shall provide all details required in the prescribed format. Initially for tender purposes and due to tentative nature of the EFFECTIVE DATE of CONTRACT, the CONTRACT EXECUTION PROGRAM, Histogram and progress S-curve shall be calibrated in week or month numbers rather than dates, (i.e. EFFECTIVE DATE of CONTRACT....week/month 1...2...3 etc.). Similarly the Cash flow S-curves shall be calibrated in week or month numbers. All references to dates must be avoided.

For the avoidance of doubt, the EFFECTIVE DATE of CONTRACT, as entered on the Form of Agreement, shall be determined at the sole discretion of KAHRAMAA.

#### **Reference Article 9 of General Conditions of Contract**

Under this Attachment, CONTRACTOR has included the following annexure highlighting the method of execution and programme for the WORK.

- Annexure 1: EXECUTION PROGRAMME, Manpower Histogram and Progress & cash flow S-Curves.
- Annexure 2: CONTRACTOR Method Statement





## **APPENDIX - H**

### **ANNEXURE (1) EXECUTION PROGRAMME, MANPOWER HISTOGRAM AND PROGRESS & CASH FLOW S-CURVES**

EXECUTION PROGRAMME shall be in a bar chart showing the sequence and duration of major activities and the planned Progress & cash flow S-Curves are annexed herewith.

EXECUTION PROGRAMME shall include the phasing of the WORK defined in Appendix A, and shall be prepared based on the following dates:-

EFFECTIVE DATE : -----

MILESTONES (ARTICLE 1.2 APPENDIX A1) : -----

SCHEDULED COMPLETION DATE : -----

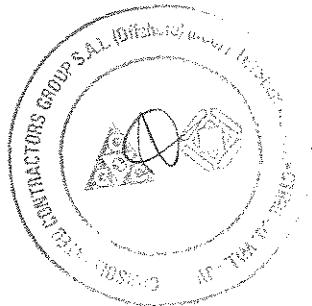
The planned Progress S-curve is related to the EXECUTION PROGRAMME and indicates the planned percentage progress to be achieved during ***each week/month*** of the CONTRACT.

The planned cash flow S-curve is related to the EXECUTION PROGRAMME and indicates the planned monthly accumulative payments in accordance with the Terms of Payments. Cash flow S-curve shall be presented as a percentage without mentioning the offer value.

The contractor to consider in his submitted program, adding dates for main tasks described in Appendix-A like studies, demolishing, transfer of staff, design, approvals etc.

Please find enclosed herein the following:

1. Proposed Overall & Detail Execution Programme
2. Manpower & Concrete Histograms
3. Progress Cash Flow & S-Curves



**SECTION 16: APPENDIX H**  
**CONTRACT EXECUTION PLAN**  
**1. Programme of Work**



**Consolidated Contractors Group SAL (Offshore)  
(CCC) / Teyseer Contracting Company WLL J.V.  
Construction of Mega Reservoir PRPSs (Package A) Project  
PO Box 22056 Doha, Qatar; Tel: 4419-3555; Fax: 4419-3523**



Date : 25<sup>th</sup> April 2015  
Our Ref. : WMR-CTJ-PR1-LTR-15-0004

To : Qatar General Electricity & Water Corporation (Kahramaa)  
Technical Affairs

Attn: Mr. Jabr Rashid Al Nuaimi,  
Head of Main Water Projects Section, TWM

Project: **GTC 626/2014A, PACKAGE A  
CONSTRUCTION OF MEGA RESERVOIR PRPS 1 – UMM - BIRKA**

Subject: **PRELIMINARY EXECUTION PROGRAM**

Dear Sir,

Pursuant to Sub-article 9.4 of General Conditions of Contract (GCC), we enclose herewith the Preliminary Execution Program, for Kahramaa's review and approval.

Please be assured of our continued support & co-operation.

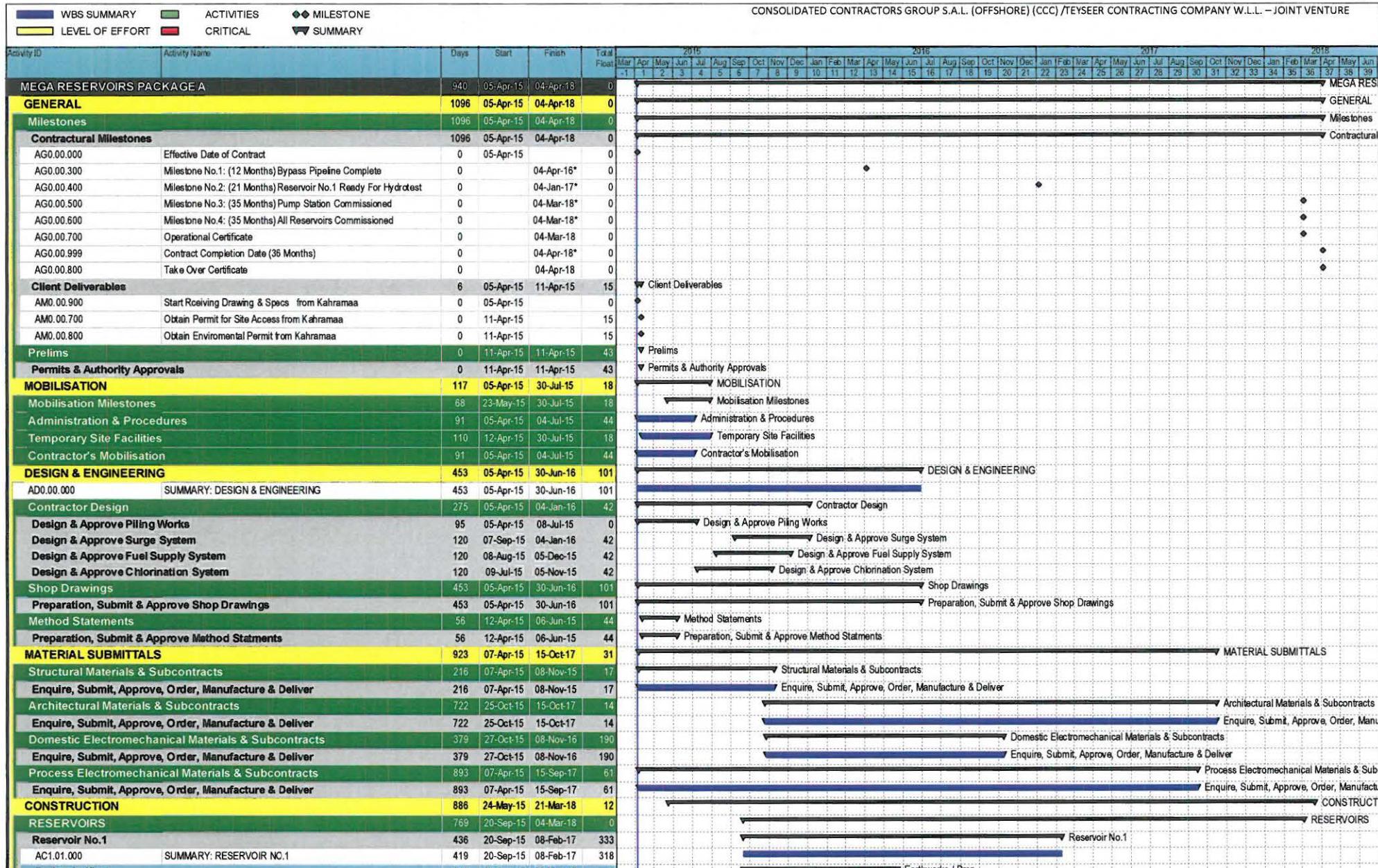
Yours very truly,  
For CCC/TCC J.V.

**ANAN AL AMAD**  
Project Director

Encl : As above

cc: Energoprojekt Entel Ltd.  
Mr. Darko Jovicic  
Project Manager

cc: Hyder Consulting Middle East Ltd.  
Ms. Helen Bali  
Team Leader



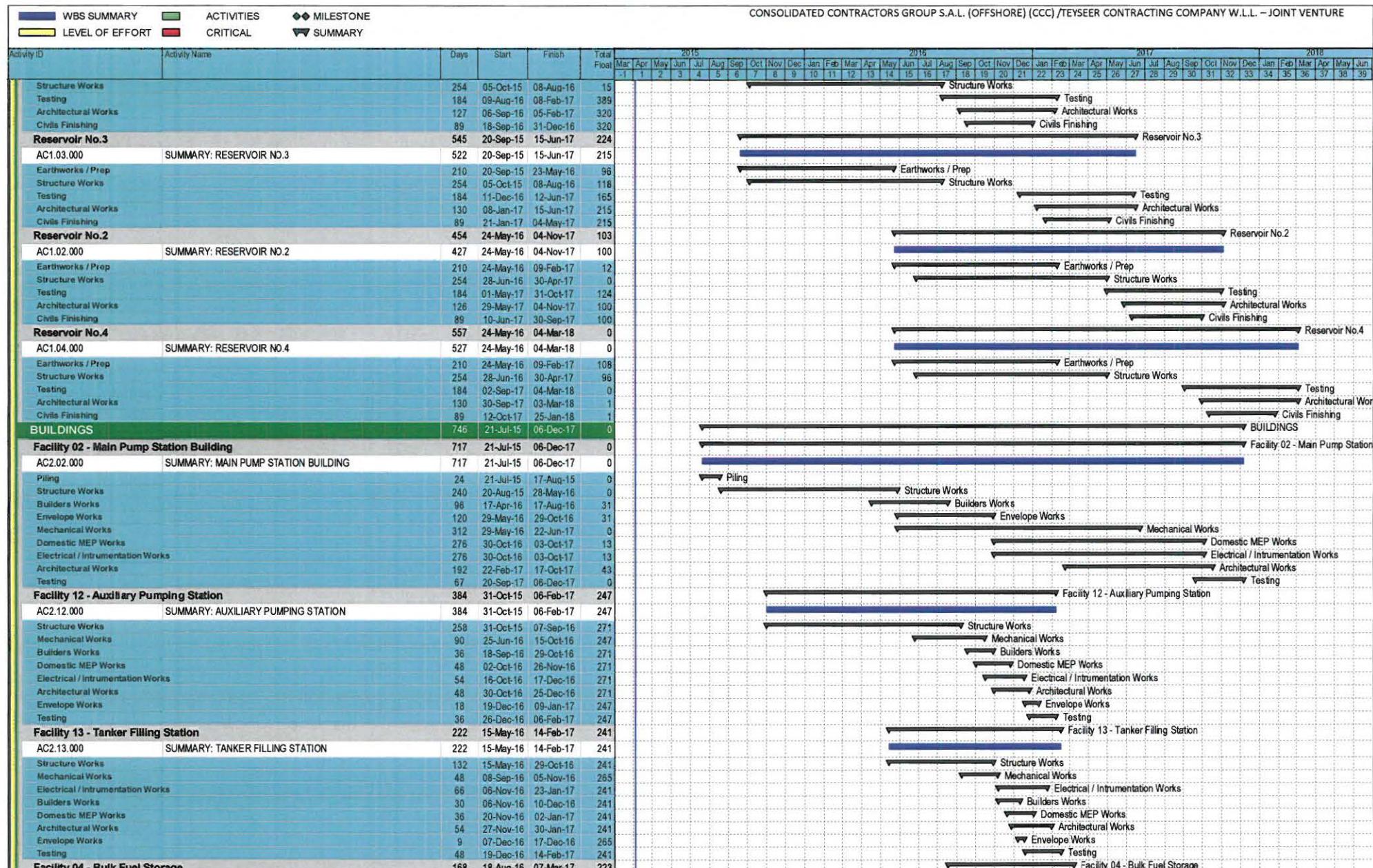
### CONSTRUCTION OF MEGA RESERVOIR PRPSs - PACKAGE A - QATAR

#### HIGH LEVEL SCHEDULE

Primavera P6 Project Reference: MWR-A

Run Date & Time: 25-Apr-15 @ 08:57

Checked: NG Page 1 of 7



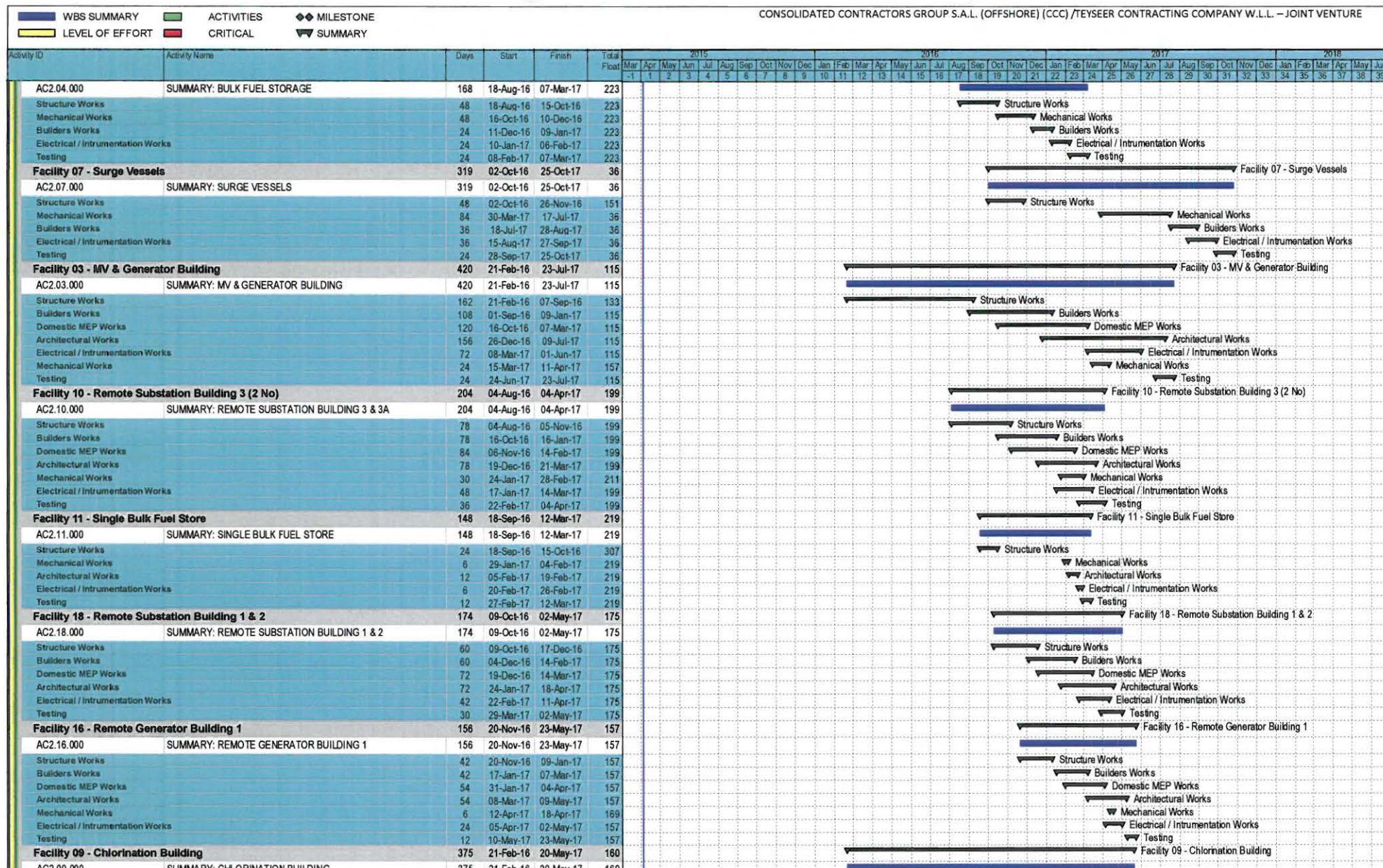
CONSTRUCTION OF MEGA RESERVOIR PRPSs - PACKAGE A - QATAR

Primavera P6 Project Reference: MWR-A

Run Date & Time: 25-Apr-15 @ 08:57

Checked: NG

Page 2 of 7



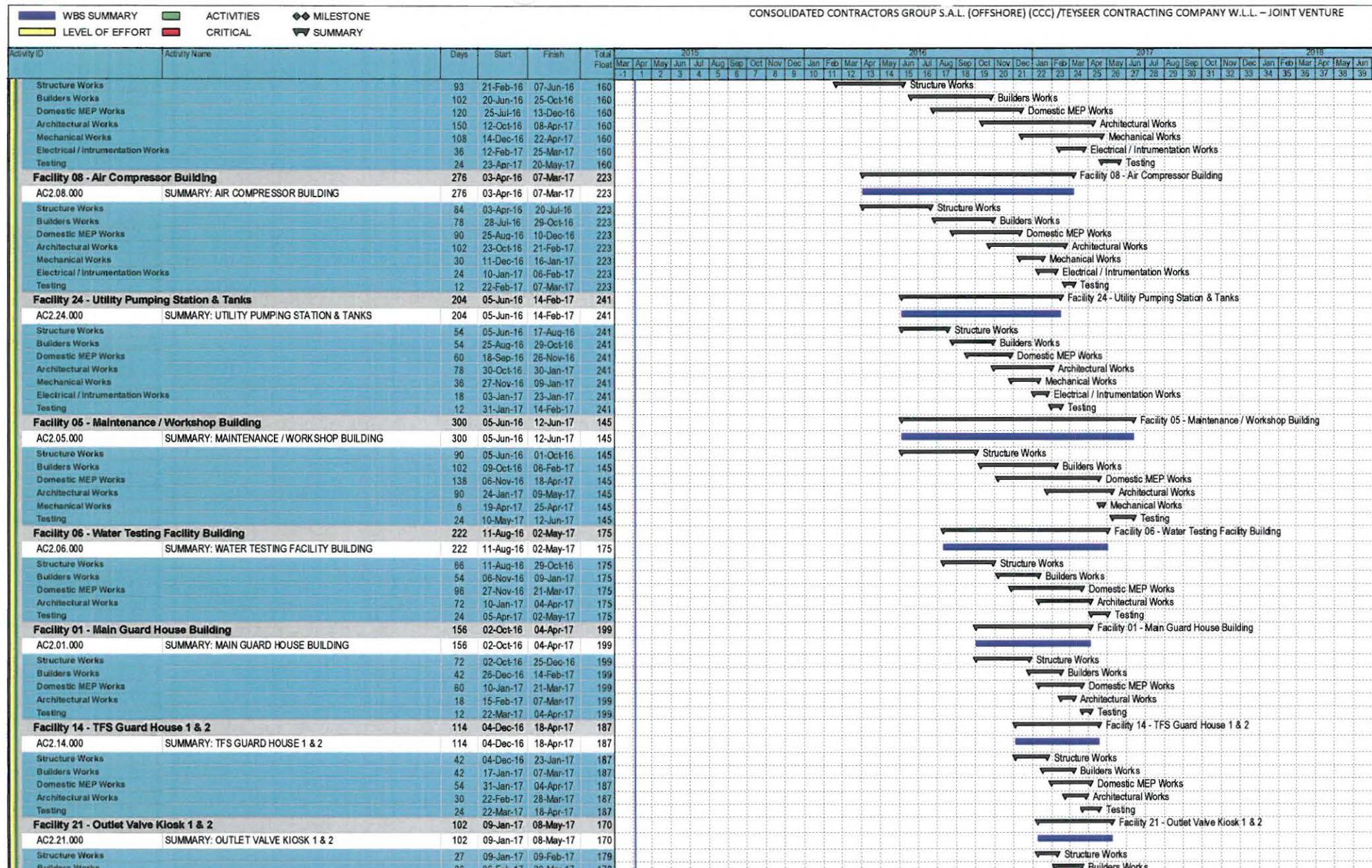
CONSTRUCTION OF MEGA RESERVOIR PRPSs - PACKAGE A - QATAR

Primavera P6 Project Reference: MWR-A

Run Date & Time: 25-Apr-15 @ 08:57

Checked: NG

Page 3 of 7



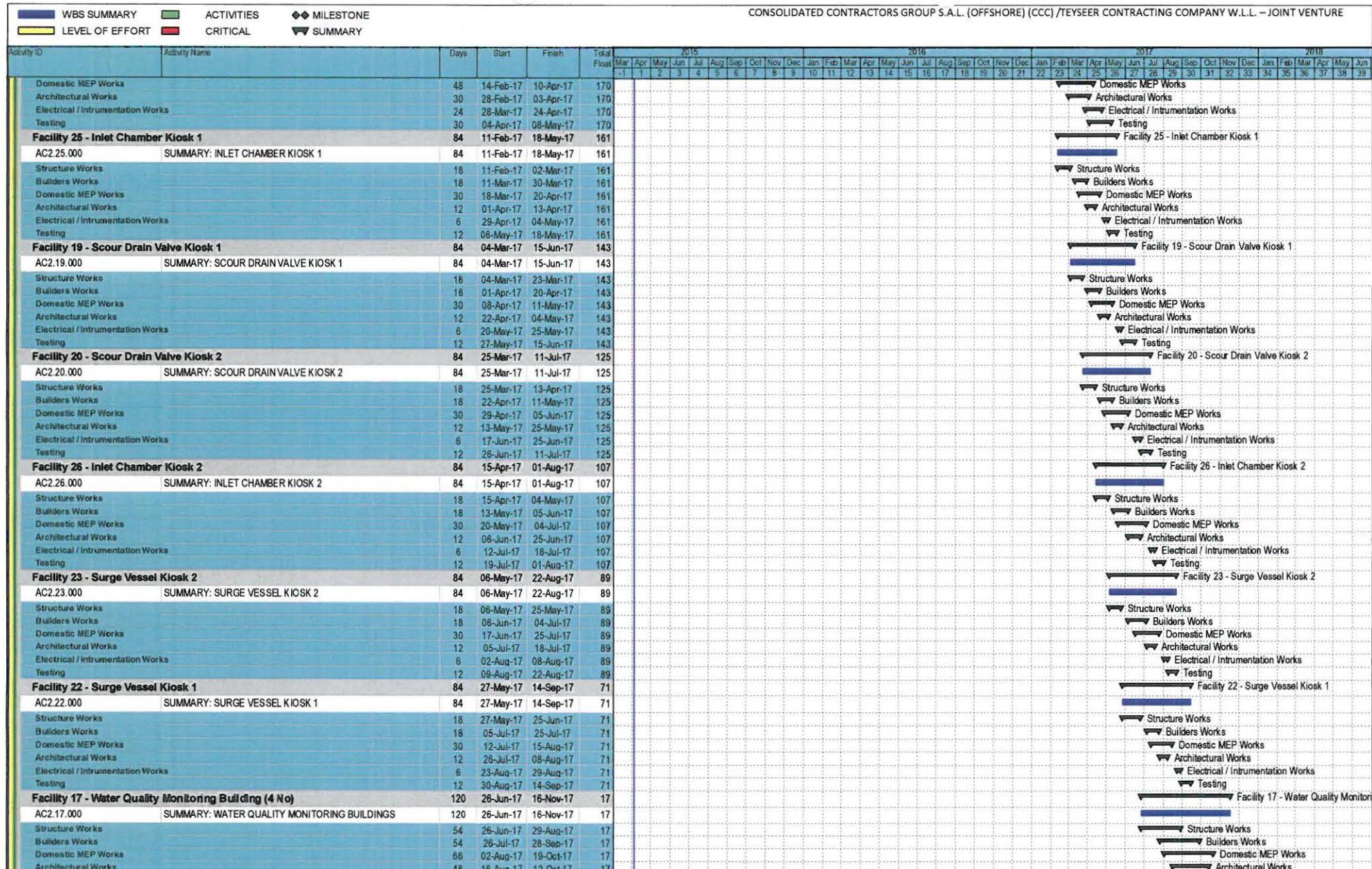
CONSTRUCTION OF MEGA RESERVOIR PRPSs - PACKAGE A - QATAR

Primavera P6 Project Reference: MWR-A

Run Date & Time: 25-Apr-15 @ 08:57

Checked: NG

Page 4 of 7



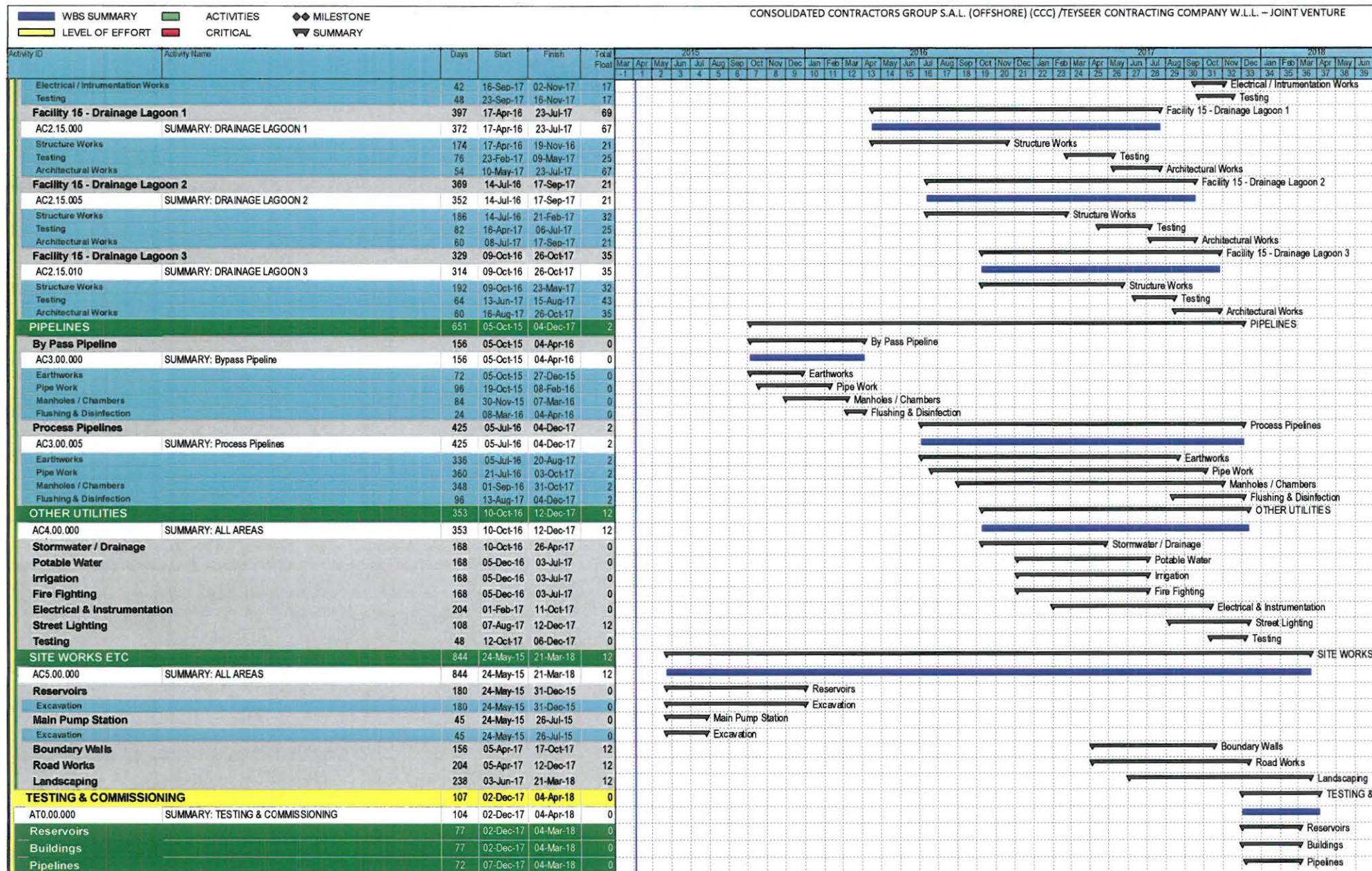
CONSTRUCTION OF MEGA RESERVOIR PRPSs - PACKAGE A - QATAR

## HIGH LEVEL SCHEDULE

Primavera P6 Project Reference: MWR-A

Run Date & Time: 25-Apr-15 @ 08:57

Checked: NG



CONSTRUCTION OF MEGA RESERVOIR PRPSs - PACKAGE A - QATAR

Primavera P6 Project Reference: MWR-A

Run Date & Time: 25-Apr-15 @ 08:57

Checked: NG



CONSOLIDATED CONTRACTORS GROUP S.A.L. (OFFSHORE) (CCC) / TEYSEER CONTRACTING COMPANY W.L.L. – JOINT VENTURE

CONSTRUCTION OF MEGA RESERVOIR PRPSs - PACKAGE A - QATAR

## HIGH LEVEL SCHEDULE

Primavera P6 Project Reference: MWR-A

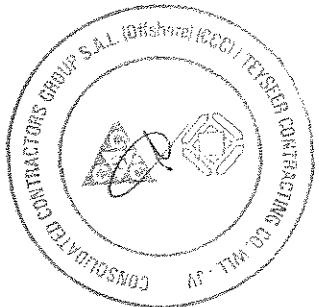
Run Date & Time: 25-Apr-15 @ 08:57

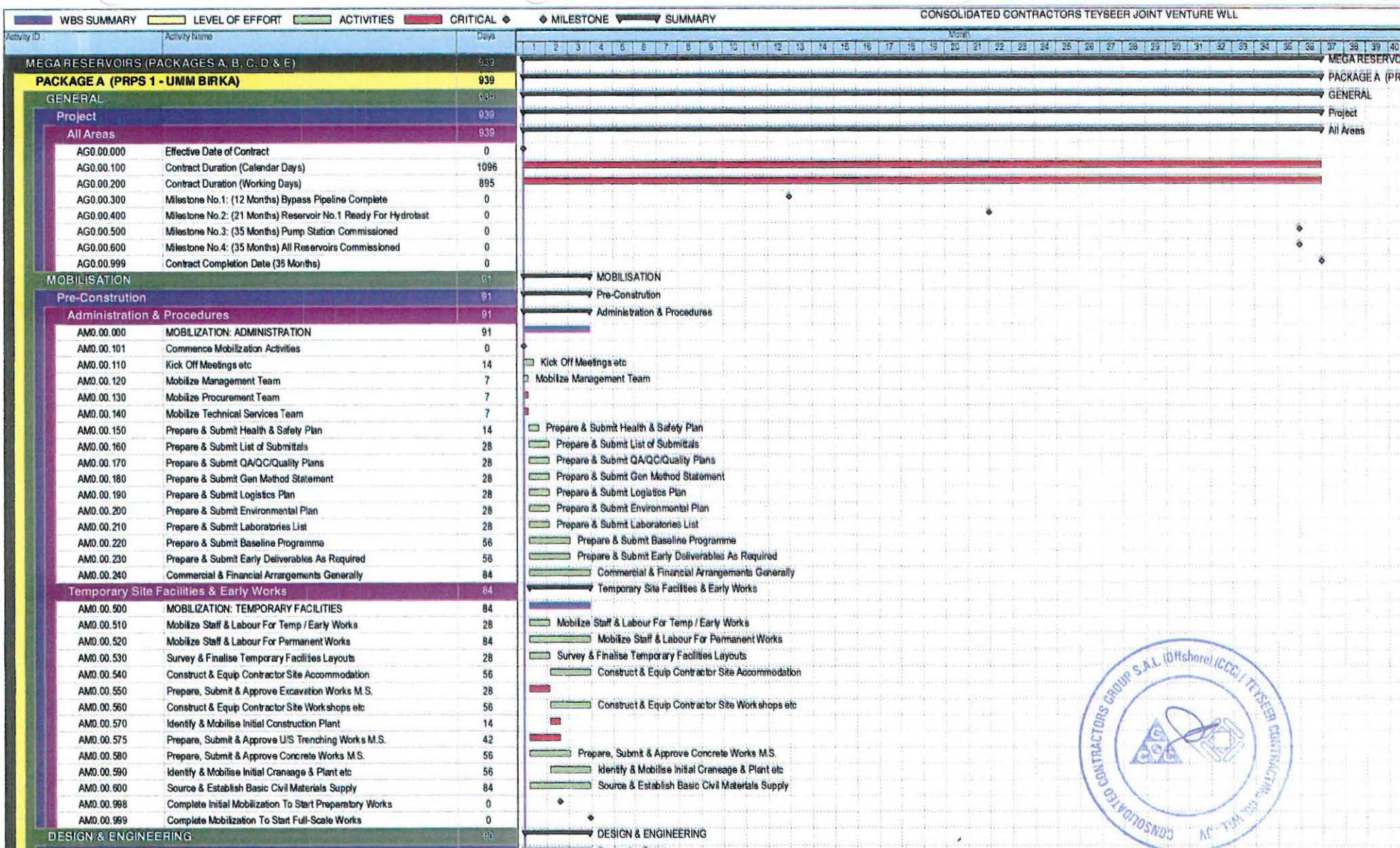
Checked: NG

Page 7 of 7

## **APPENDIX H – ANNEXURE 1**

### **PROPOSED OVERALL & DETAIL EXECUTION PROGRAMME**





QATAR GENERAL ELECTRICITY & WATER CORPORATION - TENDER No GTC 626/2014

CONSTRUCTION OF MEGA RESERVOIR PRPSs - PACKAGES A, B, C, D & E

PRELIMINARY (TENDER) SCHEDULE - PACKAGE A, PRPS 1

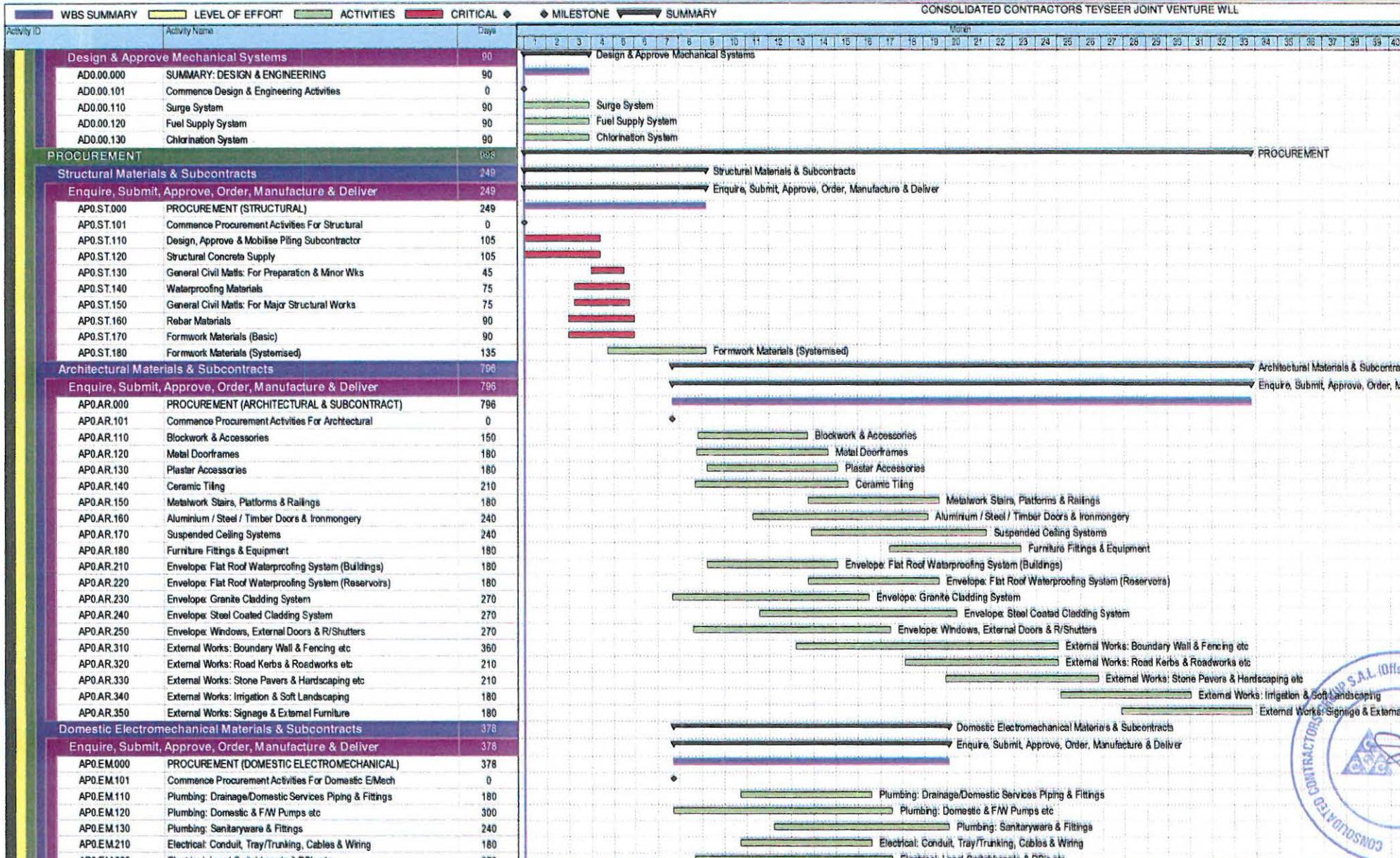
Primavera P6 Project Reference: 4857.0.Submit

Run Date & Time: 14-Sep-14 @ 16:00

Checked: DW

Page 1 of 15





QATAR GENERAL ELECTRICITY & WATER CORPORATION - TENDER No GTC 626/2014

Primavera P6 Project Reference: 4857.0.Submit

CONSTRUCTION OF MEGA RESERVOIR PRPS - PACKAGES A, B, C, D & E

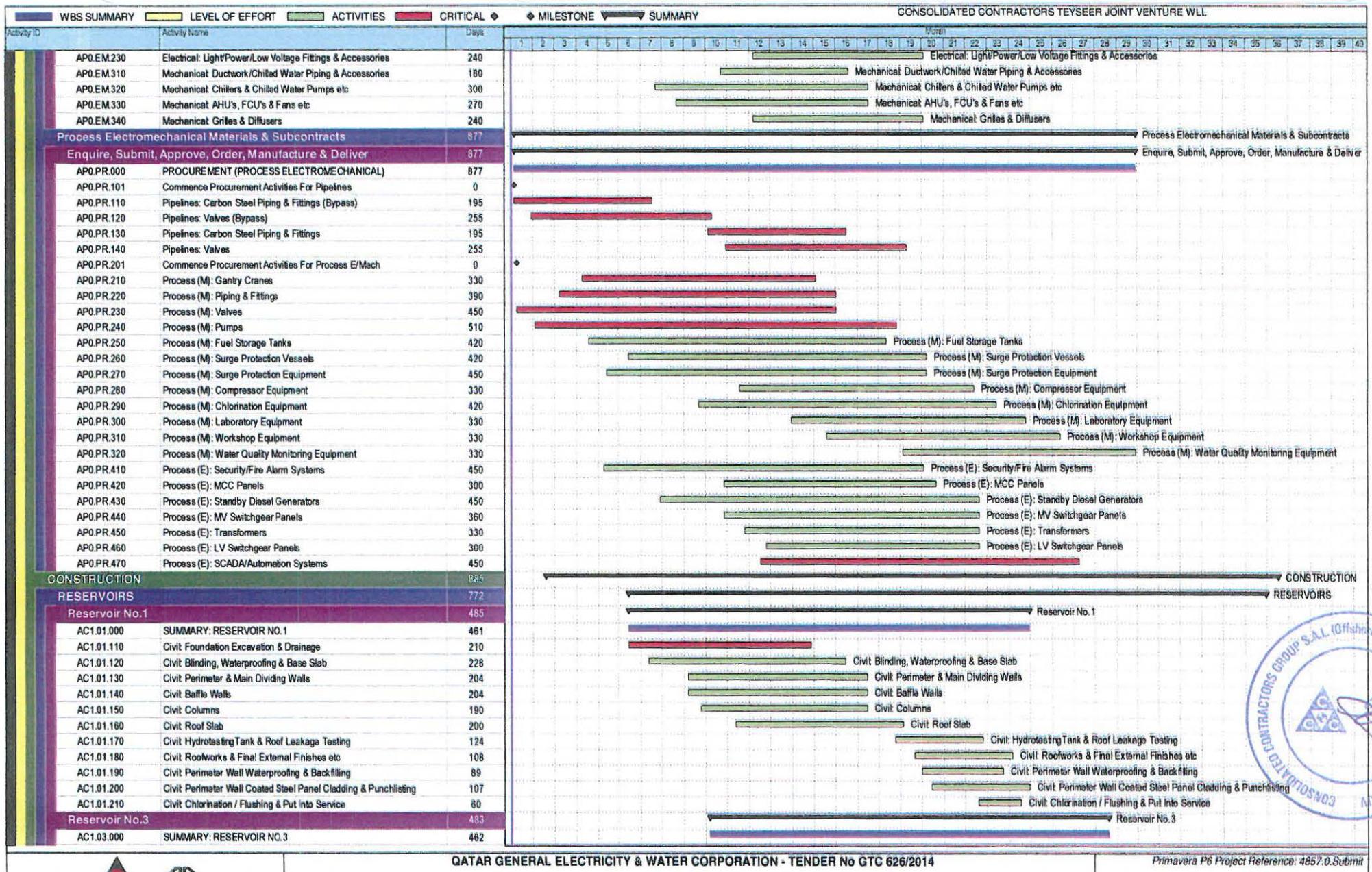
Run Date & Time: 14-Sep-14 @ 16:00

PRELIMINARY (TENDER) SCHEDULE - PACKAGE A, PRPS 1

Checked: DW

Page 2 of 15





QATAR GENERAL ELECTRICITY & WATER CORPORATION - TENDER No GTC 626/2014

Primavera P6 Project Reference: 4857.0.Submit

CONSTRUCTION OF MEGA RESERVOIR PRPSs - PACKAGES A, B, C, D & E

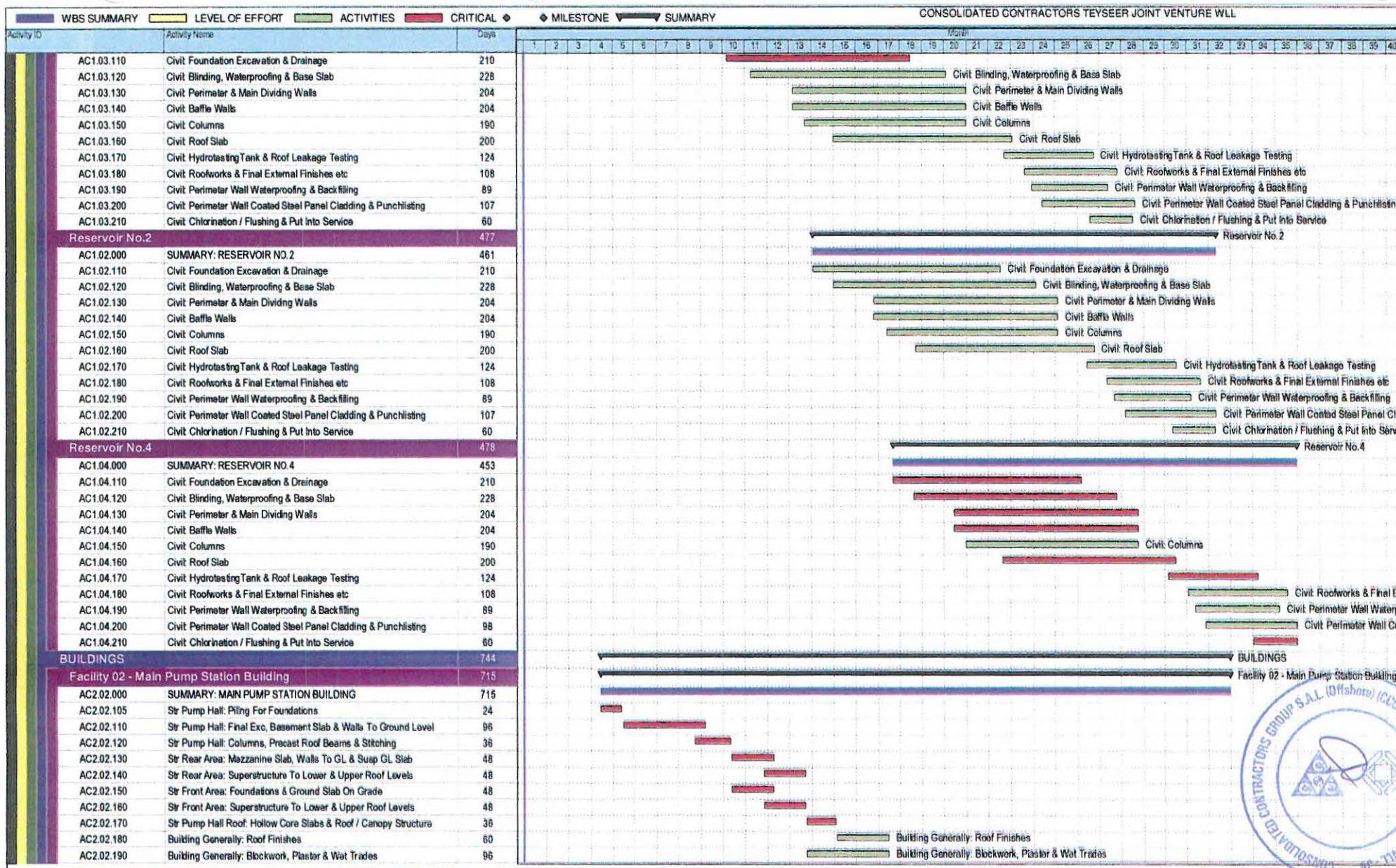
Run Date & Time: 14-Sep-14 @ 16:00

PRELIMINARY (TENDER) SCHEDULE - PACKAGE A, PRPS 1

Checked: DW

Page 3 of 15





QATAR GENERAL ELECTRICITY & WATER CORPORATION - TENDER No GTC 626/2014

CONSTRUCTION OF MEGA RESERVOIR PRPSs - PACKAGES A, B, C, D & E

PRELIMINARY (TENDER) SCHEDULE - PACKAGE A, PRPS 1

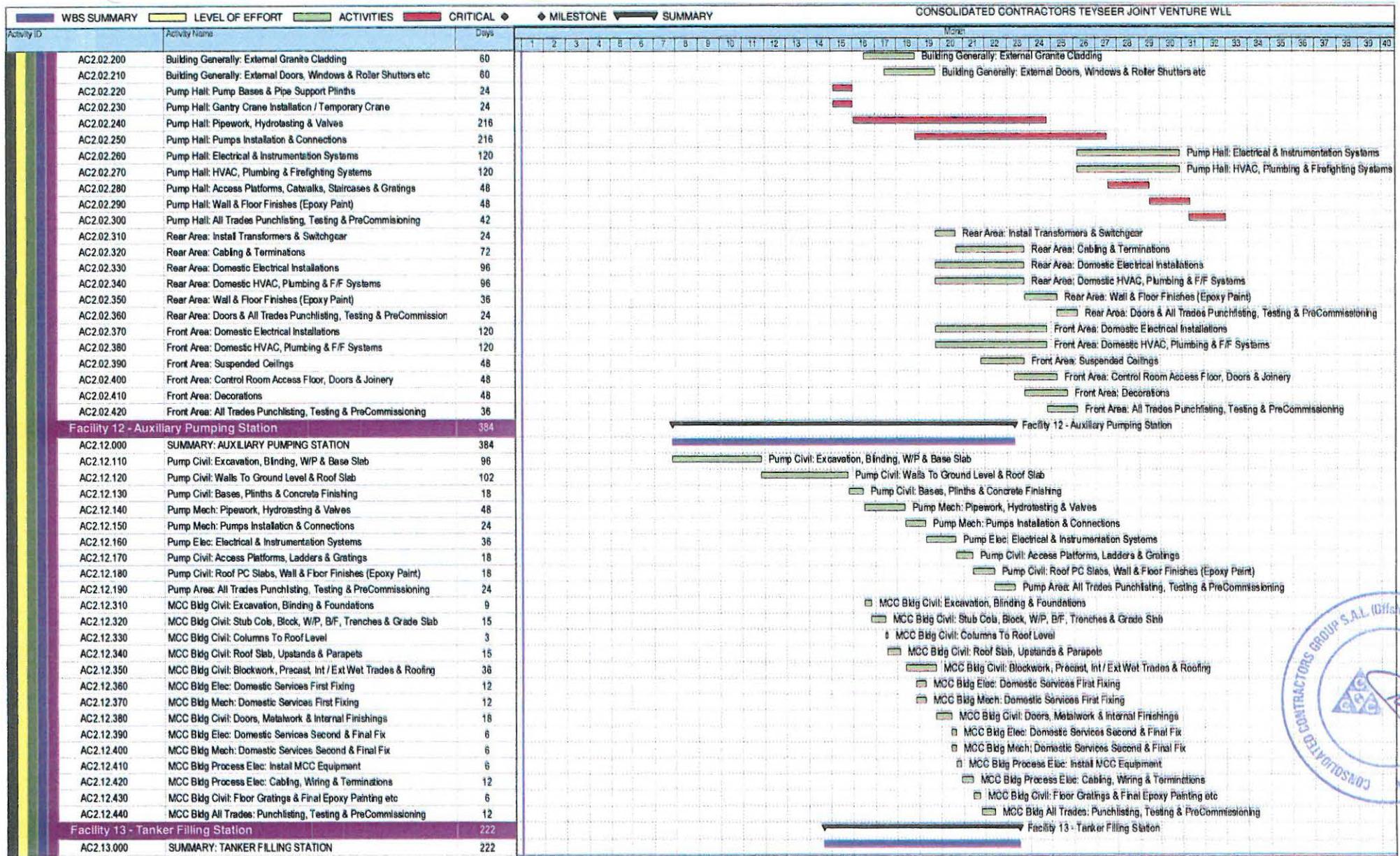
Primavera P6 Project Reference: 4957.0 Submt

Run Date & Time: 14-Sep-14 @ 16:00

Checked: DW

Page 4 of 15





QATAR GENERAL ELECTRICITY & WATER CORPORATION - TENDER No GTC 626/2014

Primavera P6 Project Reference: 4857.0 Submit

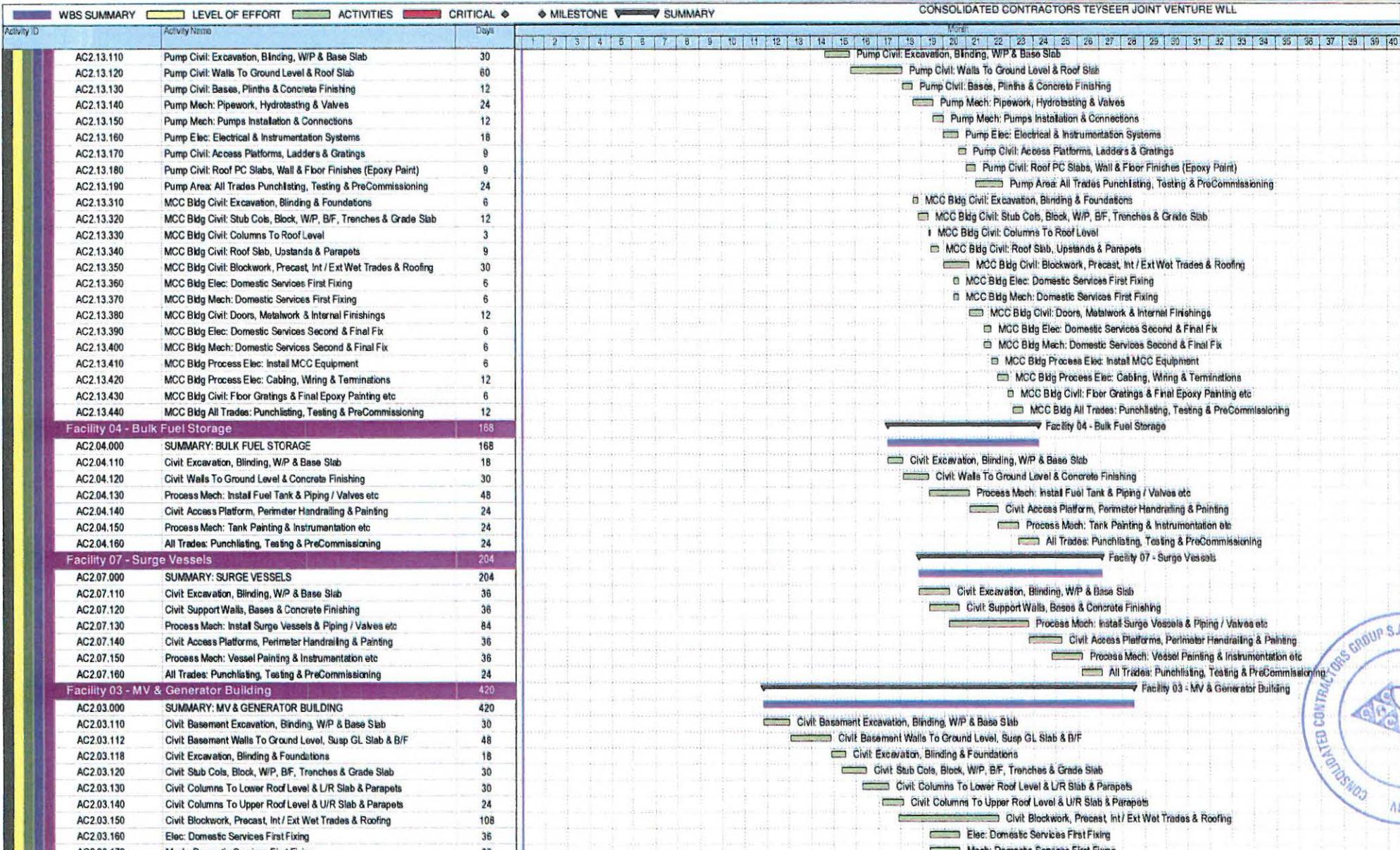
CONSTRUCTION OF MEGA RESERVOIR PRPSs - PACKAGES A, B, C, D & E

Run Date & Time: 14-Sep-14 @ 16:00

PRELIMINARY (TENDER) SCHEDULE - PACKAGE A, PRPS 1

Checked: DW

Page 5 of 15



QATAR GENERAL ELECTRICITY & WATER CORPORATION - TENDER No GTC 626/2014

CONSTRUCTION OF MEGA RESERVOIR PRPSs - PACKAGES A, B, C, D & E

PRELIMINARY (TENDER) SCHEDULE - PACKAGE A, PRPS 1

Primavera P6 Project Reference: 4857.0.Submit

Run Date & Time: 14-Sep-14 @ 16:00

Checked: DW

Page 6 of 15



WBS SUMMARY		LEVEL OF EFFORT		ACTIVITIES		CRITICAL		MILESTONE		SUMMARY		CONSOLIDATED CONTRACTORS TEYSEER JOINT VENTURE WLL																																		
Activity ID	Activity Name	Days		Month																																										
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40					
AC2.03.180	Civit Doors, Louvres, Metalwork & Internal Finishings	36																																												
AC2.03.190	Elec: Domestic Services Second & Final Fix	24																																												
AC2.03.200	Mech: Domestic Services Second & Final Fix	24																																												
AC2.03.210	Process Elec: Install Generators & Exhausts	24																																												
AC2.03.220	Process Mech: Install Day Fuel Tanks & Piping	24																																												
AC2.03.230	Process Elec: Install Transformer	6																																												
AC2.03.240	Process Elec: Install MV / LV Switchgear & Equipment	24																																												
AC2.03.250	Process Elec: Cabling, Wiring & Terminations	48																																												
AC2.03.260	Civil Floor Gratings & Final Epoxy Painting etc	24																																												
AC2.03.270	All Trades: Punchlisting, Testing & PreCommissioning	24																																												
<b>Facility 10 - Remote Substation Building 3</b>		204																																												
AC2.10.000	SUMMARY: REMOTE SUBSTATION BUILDING 3	204																																												
AC2.10.110	Bldg 10 Civil: Excavation, Blinding & Foundations	12																																												
AC2.10.120	Bldg 10 Civil: Stub Cols, Block, W/P, BF, Trenches & Grade Slab	18																																												
AC2.10.130	Bldg 10 Civil: Columns To Roof Level	6																																												
AC2.10.140	Bldg 10 Civil: Roof Slab, Upstands & Parapets	18																																												
AC2.10.150	Bldg 10 Civil: Blockwork, Int / Ext Wet Trades & Roofing	54																																												
AC2.10.160	Bldg 10 Elec: Domestic Services First Fixing	15																																												
AC2.10.170	Bldg 10 Mech: Domestic Services First Fixing	15																																												
AC2.10.180	Bldg 10 Civil: Doors, Louvres, Metalwork & Internal Finishings	18																																												
AC2.10.190	Bldg 10 Elec: Domestic Services Second & Final Fix	6																																												
AC2.10.200	Bldg 10 Mech: Domestic Services Second & Final Fix	6																																												
AC2.10.210	Bldg 10 Process Elec: Install Generator & Exhaust	6																																												
AC2.10.220	Bldg 10 Process Mech: Install Day Fuel Tanks & Piping	6																																												
AC2.10.225	Bldg 10 Process Elec: Install Transformer	6																																												
AC2.10.230	Bldg 10 Process Elec: Install MV / LV Switchgear & Equipment	12																																												
AC2.10.250	Bldg 10 Process Elec: Cabling, Wiring & Terminations	12																																												
AC2.10.260	Bldg 10 Civil: Floor Gratings & Final Epoxy Painting etc	6																																												
AC2.10.270	Bldg 10 All Trades: Punchlisting, Testing & PreCommissioning	12																																												
AC2.10.310	Bldg 10a Civil: Excavation, Blinding & Foundations	12																																												
AC2.10.320	Bldg 10a Civil: Stub Cols, Block, W/P, BF, Trenches & Grade Slab	18																																												
AC2.10.330	Bldg 10a Civil: Columns To Roof Level	6																																												
AC2.10.340	Bldg 10a Civil: Roof Slab, Upstands & Parapets	18																																												
AC2.10.350	Bldg 10a Civil: Blockwork, Int / Ext Wet Trades & Roofing	54																																												
AC2.10.360	Bldg 10a Elec: Domestic Services First Fixing	15																																												
AC2.10.370	Bldg 10a Mech: Domestic Services First Fixing	15																																												
AC2.10.380	Bldg 10a Civil: Doors, Louvres, Metalwork & Internal Finishings	18																																												
AC2.10.390	Bldg 10a Elec: Domestic Services Second & Final Fix	6																																												
AC2.10.400	Bldg 10a Mech: Domestic Services Second & Final Fix	6																																												
AC2.10.410	Bldg 10a Process Elec: Install Generator & Exhaust	6																																												
AC2.10.420	Bldg 10a Process Mech: Install Day Fuel Tanks & Piping	6																																												
AC2.10.430	Bldg 10a Process Elec: Install Transformer	6																																												
AC2.10.440	Bldg 10a Process Elec: Install MV / LV Switchgear & Equipment	12																																												
AC2.10.450	Bldg 10a Process Elec: Cabling, Wiring & Terminations	12																																												
AC2.10.460	Bldg 10a Civil: Floor Gratings & Final Epoxy Painting etc	6																																												
AC2.10.470	Bldg 10a All Trades: Punchlisting, Testing & PreCommissioning	12																																												

WBS SUMMARY		LEVEL OF EFFORT	ACTIVITIES	Critical	MILESTONE	SUMMARY	CONSOLIDATED CONTRACTORS TEYSEER JOINT VENTURE WLL	
Activity ID	Activity Name	Days				Month		
AC2.11.130	Process Mech: Install Fuel Tank & Piping / Valves etc	6				1	Process Mech: Install Fuel Tank & Piping / Valves etc	
AC2.11.140	Civil Access Platform, Perimeter Handrailing & Painting	12				2	Civil Access Platform, Perimeter Handrailing & Painting	
AC2.11.150	Process Mech: Tank Painting & Instrumentation etc	6				3	Process Mech: Tank Painting & Instrumentation etc	
AC2.11.160	All Trades: Punchlisting, Testing & PreCommissioning	12				4	All Trades: Punchlisting, Testing & PreCommissioning	
<b>Facility 18 - Remote Substation Building 1 &amp; 2</b>		174				5	<b>Facility 18 - Remote Substation Building 1 &amp; 2</b>	
AC2.18.000	<b>SUMMARY: REMOTE SUBSTATION BUILDING 1 &amp; 2</b>	174				6	<b>Bldg 18 Civil: Excavation, Blinding &amp; Foundations</b>	
AC2.18.110	Bldg 18 Civil: Excavation, Blinding & Foundations	9				7	Bldg 18 Civil: Stub Cols, Block, WP, BF, Trenches & Grade Slab	
AC2.18.120	Bldg 18 Civil: Stub Cols, Block, WP, BF, Trenches & Grade Slab	15				8	Bldg 18 Civil: Columns To Roof Level	
AC2.18.130	Bldg 18 Civil: Columns To Roof Level	3				9	Bldg 18 Civil: Roof Slab, Upstands & Parapets	
AC2.18.140	Bldg 18 Civil: Roof Slab, Upstands & Parapets	15				10	Bldg 18 Civil: Blockwork, Int / Ext Wet Trades & Roofing	
AC2.18.150	Bldg 18 Civil: Blockwork, Int / Ext Wet Trades & Roofing	42				11	Bldg 18 Elec: Domestic Services First Fixing	
AC2.18.160	Bldg 18 Elec: Domestic Services First Fixing	12				12	Bldg 18 Mech: Domestic Services First Fixing	
AC2.18.170	Bldg 18 Mech: Domestic Services First Fixing	12				13	Bldg 18 Civil: Doors, Metalwork & Internal Finishings	
AC2.18.180	Bldg 18 Civil: Doors, Metalwork & Internal Finishings	18				14	Bldg 18 Elec: Domestic Services Second & Final Fix	
AC2.18.190	Bldg 18 Elec: Domestic Services Second & Final Fix	6				15	Bldg 18 Mech: Domestic Services Second & Final Fix	
AC2.18.200	Bldg 18 Mech: Domestic Services Second & Final Fix	6				16	Bldg 18 Process Elec: Install Transformer	
AC2.18.210	Bldg 18 Process Elec: Install Transformer	6				17	Bldg 18 Process Elec: Install MV / LV Switchgear & Equipment	
AC2.18.220	Bldg 18 Process Elec: Install MV / LV Switchgear & Equipment	12				18	Bldg 18 Process Elec: Cabling, Wiring & Terminations	
AC2.18.230	Bldg 18 Process Elec: Cabling, Wiring & Terminations	12				19	Bldg 18 Civil: Floor Gratings & Final Epoxy Painting etc	
AC2.18.240	Bldg 18 Civil: Floor Gratings & Final Epoxy Painting etc	6				20	Bldg 18 All Trades: Punchlisting, Testing & PreCommissioning	
AC2.18.250	Bldg 18 All Trades: Punchlisting, Testing & PreCommissioning	12				21	<b>Bldg 18a Civil: Excavation, Blinding &amp; Foundations</b>	
AC2.18.310	Bldg 18a Civil: Excavation, Blinding & Foundations	9				22	Bldg 18a Civil: Stub Cols, Block, WP, BF, Trenches & Grade Slab	
AC2.18.320	Bldg 18a Civil: Stub Cols, Block, WP, BF, Trenches & Grade Slab	15				23	Bldg 18a Civil: Columns To Roof Level	
AC2.18.330	Bldg 18a Civil: Columns To Roof Level	3				24	Bldg 18a Civil: Roof Slab, Upstands & Parapets	
AC2.18.340	Bldg 18a Civil: Roof Slab, Upstands & Parapets	15				25	Bldg 18a Civil: Blockwork, Int / Ext Wet Trades & Roofing	
AC2.18.350	Bldg 18a Civil: Blockwork, Int / Ext Wet Trades & Roofing	42				26	Bldg 18a Elec: Domestic Services First Fixing	
AC2.18.360	Bldg 18a Elec: Domestic Services First Fixing	12				27	Bldg 18a Mech: Domestic Services First Fixing	
AC2.18.370	Bldg 18a Mech: Domestic Services First Fixing	12				28	Bldg 18a Civil: Doors, Metalwork & Internal Finishings	
AC2.18.380	Bldg 18a Civil: Doors, Metalwork & Internal Finishings	18				29	Bldg 18a Elec: Domestic Services Second & Final Fix	
AC2.18.390	Bldg 18a Elec: Domestic Services Second & Final Fix	6				30	Bldg 18a Mech: Domestic Services Second & Final Fix	
AC2.18.400	Bldg 18a Mech: Domestic Services Second & Final Fix	6				31	Bldg 18a Process Elec: Install Transformer	
AC2.18.410	Bldg 18a Process Elec: Install Transformer	6				32	Bldg 18a Process Elec: Install MV / LV Switchgear & Equipment	
AC2.18.420	Bldg 18a Process Elec: Install MV / LV Switchgear & Equipment	12				33	Bldg 18a Process Elec: Cabling, Wiring & Terminations	
AC2.18.430	Bldg 18a Process Elec: Cabling, Wiring & Terminations	12				34	Bldg 18a Civil: Floor Gratings & Final Epoxy Painting etc	
AC2.18.440	Bldg 18a Civil: Floor Gratings & Final Epoxy Painting etc	6				35	Bldg 18a All Trades: Punchlisting, Testing & PreCommissioning	
AC2.18.450	Bldg 18a All Trades: Punchlisting, Testing & PreCommissioning	12				36	<b>Facility 16 - Remote Generator Building 1</b>	
<b>Facility 16 - Remote Generator Building 1</b>		156				37	<b>Civil Excavation, Blinding &amp; Foundations</b>	
AC2.16.000	<b>SUMMARY: REMOTE GENERATOR BUILDING 1</b>	158				38	Civil Stub Cols, Block, WP, BF, Trenches & Grade Slab	
AC2.16.110	Civil Excavation, Blinding & Foundations	9				39	Civil Columns To Roof Level	
AC2.16.120	Civil Stub Cols, Block, WP, BF, Trenches & Grade Slab	15				40	Civil Roof Slab, Upstands & Parapets	
AC2.16.130	Civil Column To Roof Level	3				41	Civil Blockwork, Int / Ext Wet Trades & Roofing	
AC2.16.140	Civil Roof Slab, Upstands & Parapets	15				42	Elec: Domestic Services First Fixing	
AC2.16.150	Civil Blockwork, Int / Ext Wet Trades & Roofing	42				43	Mech: Domestic Services First Fixing	
AC2.16.160	Elec: Domestic Services First Fixing	12				44	Civil Doors, Louvres, Metalwork & Internal Finishings	
AC2.16.170	Mech: Domestic Services First Fixing	12				45	Elec: Domestic Services Second & Final Fix	
AC2.16.180	Civil Doors, Louvres, Metalwork & Internal Finishings	18				46	Mech: Domestic Services Second & Final Fix	
AC2.16.190	Elec: Domestic Services Second & Final Fix	6				47	Process Elec: Install Generator & Exhaust	
AC2.16.200	Mech: Domestic Services Second & Final Fix	6				48	Process Mach: Install Day Fuel Tanks & Piping	
AC2.16.210	Process Elec: Install Generator & Exhaust	6						
AC2.16.220	Process Mach: Install Day Fuel Tanks & Piping	6						



QATAR GENERAL ELECTRICITY & WATER CORPORATION - TENDER No GTC 626/2014

CONSTRUCTION OF MEGA RESERVOIR PRPSs - PACKAGES A, B, C, D & E

PRELIMINARY (TENDER) SCHEDULE - PACKAGE A, PRPS 1

Primavera P6 Project Reference: 4857.0.Submit

Run Date & Time: 14-Sep-14 @ 16:00

Checked: DW

Page 8 of 15



WBS SUMMARY		LEVEL OF EFFORT	ACTIVITIES	Critical	MILESTONE	SUMMARY	CONSOLIDATED CONTRACTORS TEYSEER JOINT VENTURE WLL	
Activity ID	Activity Name	Days			Month			
AC2.16.230	Process Elec: Install LV Switchgear & Equipment	12					Process Elec: Install LV Switchgear & Equipment	
AC2.16.240	Process Elec: Cabling, Wiring & Terminations	12					Process Elec: Cabling, Wiring & Terminations	
AC2.16.250	Civil Floor Gratings & Final Epoxy Painting etc	8					Civil Floor Gratings & Final Epoxy Painting etc	
AC2.16.260	All Trades: Punchlisting, Testing & PreCommissioning	12					All Trades: Punchlisting, Testing & PreCommissioning	
<b>Facility 09 - Chlorination Building</b>		363					<b>Facility 09 - Chlorination Building</b>	
AC2.09.000	<b>SUMMARY: CHLORINATION BUILDING</b>	363						
AC2.09.110	Civil Excavation, Blinding & Foundations	27					Civil Excavation, Blinding & Foundations	
AC2.09.120	Civil Stub Cols, Block, W/P, B/F, Trenches & Grade Slab	36					Civil Stub Cols, Block, W/P, B/F, Trenches & Grade Slab	
AC2.09.130	Civil Columns To Roof Level	15					Civil Columns To Roof Level	
AC2.09.140	Civil Roof Slab, Upstands & Parapets	30					Civil Roof Slab, Upstands & Parapets	
AC2.09.150	Civil Blockwork, Precast, Int/ Ext Wet Trades & Roofing	102					Civil Blockwork, Precast, Int/ Ext Wet Trades & Roofing	
AC2.09.160	Elec: Domestic Services First Fixing	36					Elec: Domestic Services First Fixing	
AC2.09.170	Mech: Domestic Services First Fixing	36					Mech: Domestic Services First Fixing	
AC2.09.180	Civil Doors, Shutters, Metalwork & Internal Finishings	36					Civil Doors, Shutters, Metalwork & Internal Finishings	
AC2.09.190	Elec: Domestic Services Second & Final Fix	30					Elec: Domestic Services Second & Final Fix	
AC2.09.200	Mech: Domestic Services Second & Final Fix	30					Mech: Domestic Services Second & Final Fix	
AC2.09.210	Process Mech: Install Gantry Crane	12					Process Mech: Install Gantry Crane	
AC2.09.220	Process Mech: Interconnecting Pipework etc	36					Process Mech: Interconnecting Pipework etc	
AC2.09.230	Process Mech: Install Chlorination Equipment	12					Process Mech: Install Chlorination Equipment	
AC2.09.240	Process Elec: Install Switchgear & Equipment	12					Process Elec: Install Switchgear & Equipment	
AC2.09.250	Process Elec: Cabling, Wiring & Terminations	24					Process Elec: Cabling, Wiring & Terminations	
AC2.09.260	Civil Floor Gratings & Final Epoxy Painting etc	12					Civil Floor Gratings & Final Epoxy Painting etc	
AC2.09.270	Process Mech: Install Feed Drums For Testing	12					Process Mech: Install Feed Drums For Testing	
AC2.09.280	All Trades: Punchlisting, Testing & PreCommissioning	24					All Trades: Punchlisting, Testing & PreCommissioning	
<b>Facility 08 - Air Compressor Building</b>		278					<b>Facility 08 - Air Compressor Building</b>	
AC2.08.000	<b>SUMMARY: AIR COMPRESSOR BUILDING</b>	278						
AC2.08.110	Civil Excavation, Blinding & Foundations	21					Civil Excavation, Blinding & Foundations	
AC2.08.120	Civil Stub Cols, Block, W/P, B/F, Trenches & Grade Slab	33					Civil Stub Cols, Block, W/P, B/F, Trenches & Grade Slab	
AC2.08.130	Civil Columns To Roof Level	9					Civil Columns To Roof Level	
AC2.08.140	Civil Roof Slab, Upstands & Parapets	24					Civil Roof Slab, Upstands & Parapets	
AC2.08.150	Civil Blockwork, Precast, Int/ Ext Wet Trades & Roofing	78					Civil Blockwork, Precast, Int/ Ext Wet Trades & Roofing	
AC2.08.160	Elec: Domestic Services First Fixing	24					Elec: Domestic Services First Fixing	
AC2.08.170	Mech: Domestic Services First Fixing	24					Mech: Domestic Services First Fixing	
AC2.08.180	Civil Doors, Shutters, Metalwork & Internal Finishings	24					Civil Doors, Shutters, Metalwork & Internal Finishings	
AC2.08.190	Elec: Domestic Services Second & Final Fix	18					Elec: Domestic Services Second & Final Fix	
AC2.08.200	Mech: Domestic Services Second & Final Fix	18					Mech: Domestic Services Second & Final Fix	
AC2.08.210	Process Mech: Interconnecting Pipework etc	24					Process Mech: Interconnecting Pipework etc	
AC2.08.220	Process Mech: Install Compressor Equipment	6					Process Mech: Install Compressor Equipment	
AC2.08.230	Process Elec: Install Switchgear & Equipment	6					Process Elec: Install Switchgear & Equipment	
AC2.08.240	Process Elec: Cabling, Wiring & Terminations	18					Process Elec: Cabling, Wiring & Terminations	
AC2.08.250	Civil Floor Gratings & Final Epoxy Painting etc	12					Civil Floor Gratings & Final Epoxy Painting etc	
AC2.08.260	All Trades: Punchlisting, Testing & PreCommissioning	12					All Trades: Punchlisting, Testing & PreCommissioning	
<b>Facility 24 - Utility Pumping Station &amp; Tanks</b>		204					<b>Facility 24 - Utility Pumping Station &amp; Tanks</b>	
AC2.24.000	<b>SUMMARY: UTILITY PUMPING STATION &amp; TANKS</b>	204						
AC2.24.110	Civil Excavation, Blinding & Foundations	12					Civil Excavation, Blinding & Foundations	
AC2.24.120	Civil Stub Cols, Block, W/P, B/F, Trenches & Grade Slab	18					Civil Stub Cols, Block, W/P, B/F, Trenches & Grade Slab	
AC2.24.130	Civil Columns To Roof Level	6					Civil Columns To Roof Level	
AC2.24.140	Civil Roof Slab, Upstands & Parapets	18					Civil Roof Slab, Upstands & Parapets	
AC2.24.150	Civil Blockwork, Precast, Int/ Ext Wet Trades & Roofing	54					Civil Blockwork, Precast, Int/ Ext Wet Trades & Roofing	
AC2.24.160	Elec: Domestic Services First Fixing	15					Elec: Domestic Services First Fixing	



QATAR GENERAL ELECTRICITY & WATER CORPORATION - TENDER No GTC 626/2014

CONSTRUCTION OF MEGA RESERVOIR PRPSs - PACKAGES A, B, C, D & E

PRELIMINARY (TENDER) SCHEDULE - PACKAGE A, PRPS 1

Primavera P6 Project Reference: 4857.0.Submit

Run Date & Time: 14-Sep-14 @ 18:00

Checked: DW Page 9 of 15



WBS SUMMARY		LEVEL OF EFFORT	ACTIVITIES	Critical	Milestone	SUMMARY	CONSOLIDATED CONTRACTORS TESEER JOINT VENTURE WLL	
Activity ID	Activity Name	Days					Month	
AC2.24.170	Mech: Domestic Services First Fixing	15					1	Mech: Domestic Services First Fixing
AC2.24.180	Civit Doors, Metalwork & Internal Finishes	18					2	Civit Doors, Metalwork & Internal Finishes
AC2.24.190	Elec: Domestic Services Second & Final Fix	6					3	Elec: Domestic Services Second & Final Fix
AC2.24.200	Mech: Domestic Services Second & Final Fix	6					4	Mech: Domestic Services Second & Final Fix
AC2.24.210	Process Mach: Install Gantry Crane To Fire Water Pump Area	6					5	Process Mach: Install Gantry Crane To Fire Water Pump Area
AC2.24.220	Process Mach: Pipework, Hydrotesting & Valves	24					6	Process Mach: Pipework, Hydrotesting & Valves
AC2.24.230	Process Mach: Instal Fire Water & Irrigation Water Pumps	6					7	Process Mach: Instal Fire Water & Irrigation Water Pumps
AC2.24.240	Process Elec: Install MCC Equipment	6					8	Process Elec: Install MCC Equipment
AC2.24.250	Process Elec: Cabling, Wiring & Terminations	12					9	Process Elec: Cabling, Wiring & Terminations
AC2.24.260	Civil Floor Gratings & Final Epoxy Painting etc	6					10	Civil Floor Gratings & Final Epoxy Painting etc
AC2.24.270	All Trades: Punchlisting, Testing & PreCommissioning	12					11	All Trades: Punchlisting, Testing & PreCommissioning
<b>Facility 05 - Maintenance / Workshop Building</b>		300					12	
AC2.05.000	SUMMARY: MAINTENANCE / WORKSHOP BUILDING	300					13	
AC2.05.110	Civit Excavation, Blinding & Foundations	27					14	Civit Excavation, Blinding & Foundations
AC2.05.120	Civit Stub Cols, Block, W/P, B/F, Trenches & Grade Slab	36					15	Civit Stub Cols, Block, W/P, B/F, Trenches & Grade Slab
AC2.05.130	Civit Columns To Roof Level	15					16	Civit Columns To Roof Level
AC2.05.140	Civit Roof Slab, Upstands & Parapets	30					17	Civit Roof Slab, Upstands & Parapets
AC2.05.150	Civit Blockwork, Precast, Int / Ext Wet Trades & Roofing	102					18	Civit Blockwork, Precast, Int / Ext Wet Trades & Roofing
AC2.05.160	Elec: Domestic Services FirstFixing	36					19	Elec: Domestic Services FirstFixing
AC2.05.170	Mech: Domestic Services First Fixing	36					20	Mech: Domestic Services First Fixing
AC2.05.180	Civil Ceilings, Doors, Joinery, Metalwork & Internal Finishes	48					21	Civil Ceilings, Doors, Joinery, Metalwork & Internal Finishes
AC2.05.190	Elec: Domestic Services Second & Final Fix	36					22	Elec: Domestic Services Second & Final Fix
AC2.05.200	Mech: Domestic Services Second & Final Fix	36					23	Mech: Domestic Services Second & Final Fix
AC2.05.210	Process Mach: Instal Gantry Crane	6					24	Process Mach: Instal Gantry Crane
AC2.05.260	Civil Floor Gratings & Final Epoxy Painting etc	12					25	Civil Floor Gratings & Final Epoxy Painting etc
AC2.05.280	All Trades: Punchlisting, Testing & PreCommissioning	24					26	All Trades: Punchlisting, Testing & PreCommissioning
<b>Facility 06 - Water Testing Facility Building</b>		210					27	
AC2.06.000	SUMMARY: WATER TESTING FACILITY BUILDING	210					28	
AC2.06.110	Civit Excavation, Blinding & Foundations	15					29	Civit Excavation, Blinding & Foundations
AC2.06.120	Civit Stub Cols, Block, W/P, B/F, Trenches & Grade Slab	27					30	Civit Stub Cols, Block, W/P, B/F, Trenches & Grade Slab
AC2.06.130	Civit Columns To Roof Level	6					31	Civit Columns To Roof Level
AC2.06.140	Civit Roof Slab, Upstands & Parapets	18					32	Civit Roof Slab, Upstands & Parapets
AC2.06.150	Civit Blockwork, Precast, Int / Ext Wet Trades & Roofing	54					33	Civit Blockwork, Precast, Int / Ext Wet Trades & Roofing
AC2.06.160	Elec: Domestic Services First Fixing	18					34	Elec: Domestic Services First Fixing
AC2.06.170	Mech: Domestic Services First Fixing	18					35	Mech: Domestic Services First Fixing
AC2.06.180	Civil Ceilings, Doors, Joinery, Metalwork & Internal Finishes	42					36	Civil Ceilings, Doors, Joinery, Metalwork & Internal Finishes
AC2.06.190	Elec: Domestic Services Second & Final Fix	18					37	Elec: Domestic Services Second & Final Fix
AC2.06.200	Mech: Domestic Services Second & Final Fix	18					38	Mech: Domestic Services Second & Final Fix
AC2.06.210	Civil Final Furnishing & Laboratory Equipment Fit-Out	12					39	Civil Final Furnishing & Laboratory Equipment Fit-Out
AC2.06.220	All Trades: Punchlisting, Testing & PreCommissioning	24					40	All Trades: Punchlisting, Testing & PreCommissioning
<b>Facility 01 - Main Guard House Building</b>		156						
AC2.01.000	SUMMARY: MAIN GUARD HOUSE BUILDING	156						
AC2.01.110	Civit Excavation, Blinding & Foundations	12						Civit Excavation, Blinding & Foundations
AC2.01.120	Civit Stub Cols, Block, W/P, B/F & Grade Slab	12						Civit Stub Cols, Block, W/P, B/F & Grade Slab
AC2.01.130	Civit Columns & Shear Walls To Roof Level	12						Civit Columns & Shear Walls To Roof Level
AC2.01.140	Civit Roof Slab, Upstands & Parapets	36						Civit Roof Slab, Upstands & Parapets
AC2.01.150	Civit Blockwork, Int / Ext Wet Trades & Roofing	42						Civit Blockwork, Int / Ext Wet Trades & Roofing
AC2.01.160	Elec: Domestic Services First Fixing	12						Elec: Domestic Services First Fixing
AC2.01.170	Mech: Domestic Services First Fixing	12						Mech: Domestic Services First Fixing
AC2.01.180	Civit Metalwork, Joinery, Internal Finishes & Finals	18						Civit Metalwork, Joinery, Internal Finishes & Finals



QATAR GENERAL ELECTRICITY & WATER CORPORATION - TENDER No GTC 626/2014

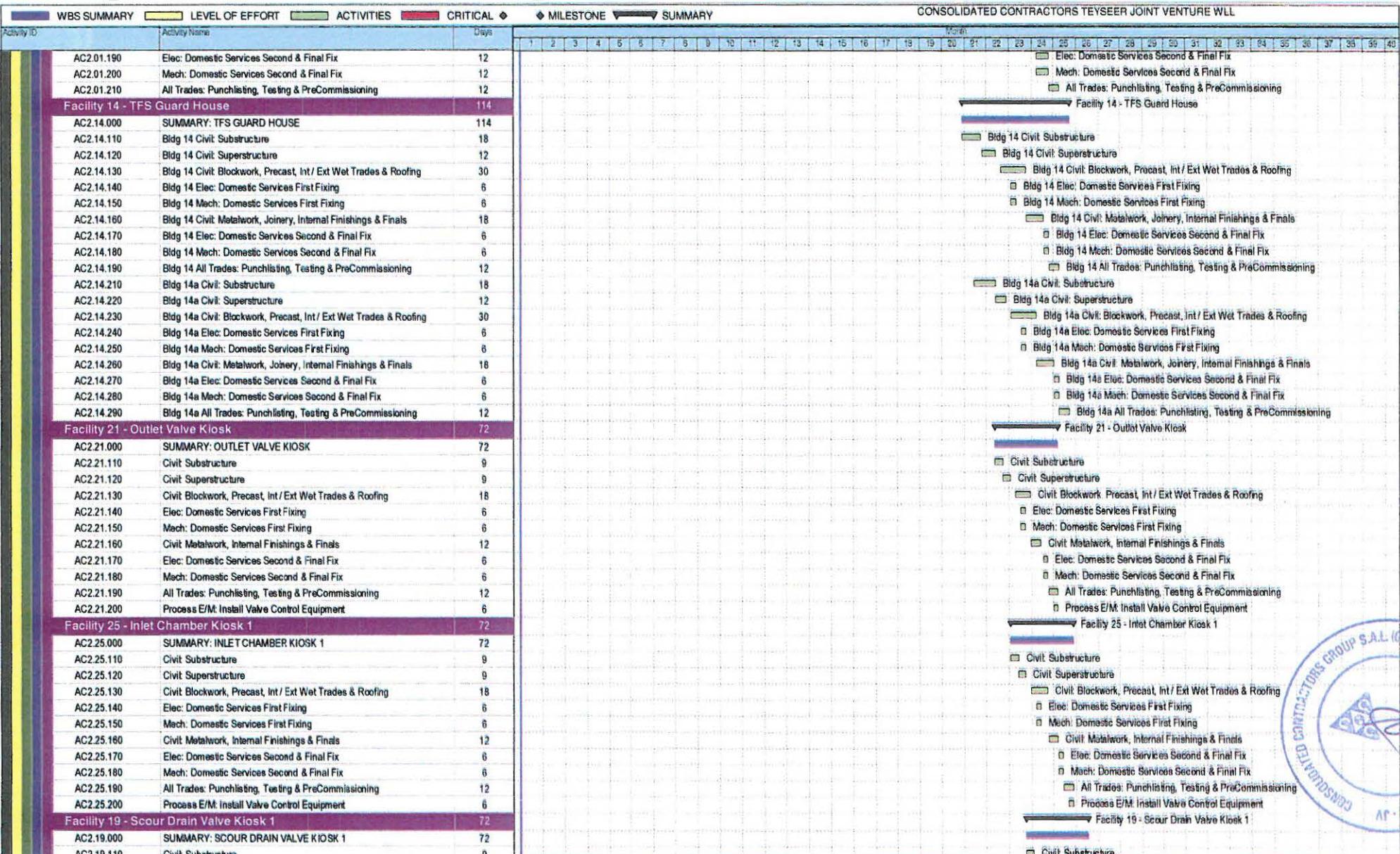
Primavera P6 Project Reference: 4852.0 Submit

CONSTRUCTION OF MEGA RESERVOIR PRPSS - PACKAGES A, B, C, D & E

Run Date & Time: 14-Sep-14 @ 16:00

PRELIMINARY (TENDER) SCHEDULE - PACKAGE A, PRPS 1

Checked: DW Page 10 o



QATAR GENERAL ELECTRICITY & WATER CORPORATION - TENDER No GTC 626/2014

CONSTRUCTION OF MEGA RESERVOIR PRPSs - PACKAGES A, B, C, D & E

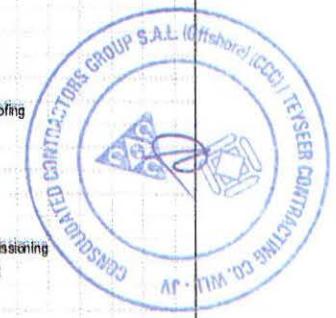
PRELIMINARY (TENDER) SCHEDULE - PACKAGE A, PRPS 1

Primavera P6 Project Reference: 4857.0.Submit

Run Date & Time: 14-Sep-14 @ 16:00

Checked: DW

Page 11 of 15



WBS SUMMARY		LEVEL OF EFFORT	ACTIVITIES	Critical	MILESTONE	SUMMARY	CONSOLIDATED CONTRACTORS TEYSEER JOINT VENTURE WLL	
Activity ID	Activity Name	Days					Month	
AC2.19.120	Civit Superstructure	9						<input type="checkbox"/> Civit Superstructure
AC2.19.130	Civit Blockwork, Precast, Int / Ext Wet Trades & Roofing	18						<input checked="" type="checkbox"/> Civit Blockwork, Precast, Int / Ext Wet Trades & Roofing
AC2.19.140	Elec: Domestic Services First Fixing	6						<input checked="" type="checkbox"/> Elec: Domestic Services First Fixing
AC2.19.150	Mech: Domestic Services First Fixing	6						<input checked="" type="checkbox"/> Mech: Domestic Services First Fixing
AC2.19.160	Civit Metalwork, Internal Finishing & Finals	12						<input checked="" type="checkbox"/> Civit Metalwork, Internal Finishing & Finals
AC2.19.170	Elec: Domestic Services Second & Final Fix	6						<input checked="" type="checkbox"/> Elec: Domestic Services Second & Final Fix
AC2.19.180	Mech: Domestic Services Second & Final Fix	6						<input checked="" type="checkbox"/> Mech: Domestic Services Second & Final Fix
AC2.19.190	All Trades: Punchlisting, Testing & PreCommissioning	12						<input checked="" type="checkbox"/> All Trades: Punchlisting, Testing & PreCommissioning
AC2.19.200	Process E/M: Install Valve Control Equipment	6						<input checked="" type="checkbox"/> Process E/M: Install Valve Control Equipment
<b>Facility 20 - Scour Drain Valve Kiosk 2</b>		72						<input checked="" type="checkbox"/> Facility 20 - Scour Drain Valve Kiosk 2
AC2.20.000	SUMMARY: SCOUR DRAIN VALVE KIOSK 2	72						<input type="checkbox"/> Civil Substructure
AC2.20.110	Civit Substructure	9						<input type="checkbox"/> Civil Superstructure
AC2.20.120	Civit Superstructure	9						<input checked="" type="checkbox"/> Civit Blockwork, Precast, Int / Ext Wet Trades & Roofing
AC2.20.130	Civit Blockwork, Precast, Int / Ext Wet Trades & Roofing	18						<input checked="" type="checkbox"/> Elec: Domestic Services First Fixing
AC2.20.140	Elec: Domestic Services First Fixing	6						<input checked="" type="checkbox"/> Mech: Domestic Services First Fixing
AC2.20.150	Mech: Domestic Services First Fixing	6						<input checked="" type="checkbox"/> Civit Metalwork, Internal Finishing & Finals
AC2.20.160	Civit Metalwork, Internal Finishing & Finals	12						<input checked="" type="checkbox"/> Elec: Domestic Services Second & Final Fix
AC2.20.170	Elec: Domestic Services Second & Final Fix	6						<input checked="" type="checkbox"/> Mech: Domestic Services Second & Final Fix
AC2.20.180	Mech: Domestic Services Second & Final Fix	6						<input checked="" type="checkbox"/> All Trades: Punchlisting, Testing & PreCommissioning
AC2.20.190	All Trades: Punchlisting, Testing & PreCommissioning	12						<input checked="" type="checkbox"/> Process E/M: Install Valve Control Equipment
AC2.20.200	Process E/M: Install Valve Control Equipment	6						<input checked="" type="checkbox"/> Facility 20 - Scour Drain Valve Kiosk 2
<b>Facility 26 - Inlet Chamber Kiosk 2</b>		72						<input type="checkbox"/> Civil Substructure
AC2.26.000	SUMMARY: INLET CHAMBER KIOSK 2	72						<input type="checkbox"/> Civil Superstructure
AC2.26.110	Civit Substructure	9						<input checked="" type="checkbox"/> Civit Blockwork, Precast, Int / Ext Wet Trades & Roofing
AC2.26.120	Civit Superstructure	9						<input checked="" type="checkbox"/> Elec: Domestic Services First Fixing
AC2.26.130	Civit Blockwork, Precast, Int / Ext Wet Trades & Roofing	18						<input checked="" type="checkbox"/> Mech: Domestic Services First Fixing
AC2.26.140	Elec: Domestic Services First Fixing	6						<input checked="" type="checkbox"/> Civit Metalwork, Internal Finishing & Finals
AC2.26.150	Mech: Domestic Services First Fixing	6						<input checked="" type="checkbox"/> Elec: Domestic Services Second & Final Fix
AC2.26.160	Civit Metalwork, Internal Finishing & Finals	12						<input checked="" type="checkbox"/> Mech: Domestic Services Second & Final Fix
AC2.26.170	Elec: Domestic Services Second & Final Fix	6						<input checked="" type="checkbox"/> All Trades: Punchlisting, Testing & PreCommissioning
AC2.26.180	Mech: Domestic Services Second & Final Fix	6						<input checked="" type="checkbox"/> Process E/M: Install Valve Control Equipment
AC2.26.190	All Trades: Punchlisting, Testing & PreCommissioning	12						<input checked="" type="checkbox"/> Facility 26 - Inlet Chamber Kiosk 2
AC2.26.200	Process E/M: Install Valve Control Equipment	6						<input type="checkbox"/> Civil Substructure
<b>Facility 23 - Surge Vessel Kiosk 2</b>		72						<input type="checkbox"/> Civil Superstructure
AC2.23.000	SUMMARY: SURGE VESSEL KIOSK 2	72						<input checked="" type="checkbox"/> Civit Blockwork, Precast, Int / Ext Wet Trades & Roofing
AC2.23.110	Civit Substructure	9						<input checked="" type="checkbox"/> Elec: Domestic Services First Fixing
AC2.23.120	Civit Superstructure	9						<input checked="" type="checkbox"/> Mech: Domestic Services First Fixing
AC2.23.130	Civit Blockwork, Precast, Int / Ext Wet Trades & Roofing	18						<input checked="" type="checkbox"/> Civit Metalwork, Internal Finishing & Finals
AC2.23.140	Elec: Domestic Services First Fixing	6						<input checked="" type="checkbox"/> Elec: Domestic Services Second & Final Fix
AC2.23.150	Mech: Domestic Services First Fixing	6						<input checked="" type="checkbox"/> Mech: Domestic Services Second & Final Fix
AC2.23.160	Civit Metalwork, Internal Finishing & Finals	12						<input checked="" type="checkbox"/> All Trades: Punchlisting, Testing & PreCommissioning
AC2.23.170	Elec: Domestic Services Second & Final Fix	6						<input checked="" type="checkbox"/> Process E/M: Install Valve Control Equipment
AC2.23.180	Mech: Domestic Services Second & Final Fix	6						<input checked="" type="checkbox"/> Facility 23 - Surge Vessel Kiosk 2
AC2.23.190	All Trades: Punchlisting, Testing & PreCommissioning	12						<input type="checkbox"/> Civil Substructure
AC2.23.200	Process E/M: Install Valve Control Equipment	6						<input type="checkbox"/> Civil Superstructure
<b>Facility 22 - Surge Vessel Kiosk 1</b>		72						<input checked="" type="checkbox"/> Civit Blockwork, Precast, Int / Ext Wet Trades & Roofing
AC2.22.000	SUMMARY: SURGE VESSEL KIOSK 1	72						<input checked="" type="checkbox"/> Civit Blockwork, Precast, Int / Ext Wet Trades & Roofing
AC2.22.110	Civit Substructure	9						<input checked="" type="checkbox"/> Elec: Domestic Services First Fixing
AC2.22.120	Civit Superstructure	9						<input checked="" type="checkbox"/> Mech: Domestic Services First Fixing
AC2.22.130	Civit Blockwork, Precast, Int / Ext Wet Trades & Roofing	18						<input checked="" type="checkbox"/> Civit Metalwork, Internal Finishing & Finals



QATAR GENERAL ELECTRICITY & WATER CORPORATION - TENDER No GTC 626/2014

CONSTRUCTION OF MEGA RESERVOIR PRPSs - PACKAGES A, B, C, D & E

PRELIMINARY (TENDER) SCHEDULE - PACKAGE A, PRPS 1

Primavera P6 Project Reference: 4857.0.Submit

Run Date & Time: 14-Sep-14 @ 16:00

Checked: DW

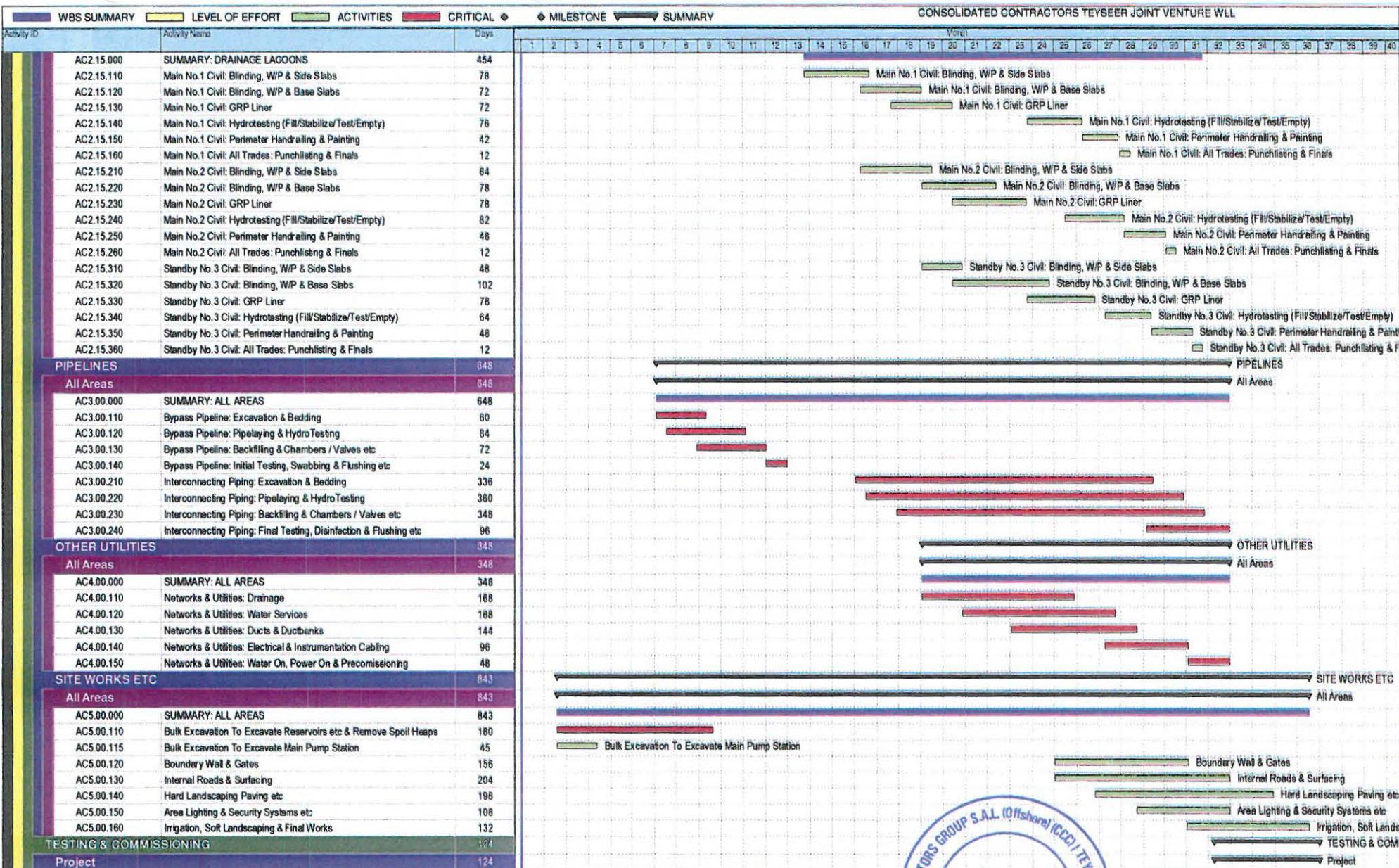
Page 12 of 15



WBS SUMMARY		LEVEL OF EFFORT	ACTIVITIES	Critical	MILESTONE	SUMMARY	CONSOLIDATED CONTRACTORS TEYSEER JOINT VENTURE WLL	
Activity ID	Activity Name	Days				Month		
AC2.22.140	Elec: Domestic Services First Fixing	6					<input type="checkbox"/> Elec: Domestic Services First Fixing	
AC2.22.150	Mech: Domestic Services First Fixing	6					<input type="checkbox"/> Mech: Domestic Services First Fixing	
AC2.22.160	Civit Metalwork, Internal Finishing & Finals	12					<input type="checkbox"/> Civit Metalwork, Internal Finishing & Finals	
AC2.22.170	Elec: Domestic Services Second & Final Fix	6					<input type="checkbox"/> Elec: Domestic Services Second & Final Fix	
AC2.22.180	Mech: Domestic Services Second & Final Fix	6					<input type="checkbox"/> Mech: Domestic Services Second & Final Fix	
AC2.22.190	All Trades: Punchlisting, Testing & PreCommissioning	12					<input type="checkbox"/> All Trades: Punchlisting, Testing & PreCommissioning	
AC2.22.200	Process E/M: Install Valve Control Equipment	6					<input type="checkbox"/> Process E/M: Install Valve Control Equipment	
<b>Facility 17 - Water Quality Monitoring Building</b>		128					<b>Facility 17 - Water Quality Monitoring Building</b>	
AC2.17.000	SUMMARY: WATER QUALITY MONITORING BUILDINGS	126					<input type="checkbox"/>	
AC2.17.110	Bldg 17 Civit Substructure	9					<input type="checkbox"/> Bldg 17 Civit Substructure	
AC2.17.120	Bldg 17 Civit Superstructure	9					<input type="checkbox"/> Bldg 17 Civit Superstructure	
AC2.17.130	Bldg 17 Civit: Blockwork, Precast, Int / Ext Wet Trades & Roofing	18					<input type="checkbox"/> Bldg 17 Civit: Blockwork, Precast, Int / Ext Wet Trades & Roofing	
AC2.17.140	Bldg 17 Elec: Domestic Services First Fixing	6					<input type="checkbox"/> Bldg 17 Elec: Domestic Services First Fixing	
AC2.17.150	Bldg 17 Mech: Domestic Services First Fixing	6					<input type="checkbox"/> Bldg 17 Mech: Domestic Services First Fixing	
AC2.17.160	Bldg 17 Civit Metalwork, Internal Finishing & Finals	12					<input type="checkbox"/> Bldg 17 Civit Metalwork, Internal Finishing & Finals	
AC2.17.170	Bldg 17 Elec: Domestic Services Second & Final Fix	6					<input type="checkbox"/> Bldg 17 Elec: Domestic Services Second & Final Fix	
AC2.17.180	Bldg 17 Mech: Domestic Services Second & Final Fix	6					<input type="checkbox"/> Bldg 17 Mech: Domestic Services Second & Final Fix	
AC2.17.190	Bldg 17 All Trades: Punchlisting, Testing & PreCommissioning	12					<input type="checkbox"/> Bldg 17 All Trades: Punchlisting, Testing & PreCommissioning	
AC2.17.200	Bldg 17 Process E/M: Install Water Quality Monitoring Equipment	6					<input type="checkbox"/> Bldg 17 Process E/M: Install Water Quality Monitoring Equipment	
AC2.17.210	Bldg 17a Civit: Substructure	9					<input type="checkbox"/> Bldg 17a Civit: Substructure	
AC2.17.220	Bldg 17a Civit: Superstructure	9					<input type="checkbox"/> Bldg 17a Civit: Superstructure	
AC2.17.230	Bldg 17a Civit: Blockwork, Precast, Int / Ext Wet Trades & Roofing	18					<input type="checkbox"/> Bldg 17a Civit: Blockwork, Precast, Int / Ext Wet Trades & Roofing	
AC2.17.240	Bldg 17a Elec: Domestic Services First Fixing	6					<input type="checkbox"/> Bldg 17a Elec: Domestic Services First Fixing	
AC2.17.250	Bldg 17a Mech: Domestic Services First Fixing	6					<input type="checkbox"/> Bldg 17a Mech: Domestic Services First Fixing	
AC2.17.260	Bldg 17a Civit: Metalwork, Internal Finishing & Finals	12					<input type="checkbox"/> Bldg 17a Civit: Metalwork, Internal Finishing & Finals	
AC2.17.270	Bldg 17a Elec: Domestic Services Second & Final Fix	6					<input type="checkbox"/> Bldg 17a Elec: Domestic Services Second & Final Fix	
AC2.17.280	Bldg 17a Mech: Domestic Services Second & Final Fix	6					<input type="checkbox"/> Bldg 17a Mech: Domestic Services Second & Final Fix	
AC2.17.290	Bldg 17a All Trades: Punchlisting, Testing & PreCommissioning	12					<input type="checkbox"/> Bldg 17a All Trades: Punchlisting, Testing & PreCommissioning	
AC2.17.300	Bldg 17a Process E/M: Install Water Quality Monitoring Equipment	6					<input type="checkbox"/> Bldg 17a Process E/M: Install Water Quality Monitoring Equipment	
AC2.17.310	Bldg 17b Civit: Substructure	9					<input type="checkbox"/> Bldg 17b Civit: Substructure	
AC2.17.320	Bldg 17b Civit: Superstructure	9					<input type="checkbox"/> Bldg 17b Civit: Superstructure	
AC2.17.330	Bldg 17b Civit: Blockwork, Precast, Int / Ext Wet Trades & Roofing	18					<input type="checkbox"/> Bldg 17b Civit: Blockwork, Precast, Int / Ext Wet Trades & Roofing	
AC2.17.340	Bldg 17b Elec: Domestic Services First Fixing	6					<input type="checkbox"/> Bldg 17b Elec: Domestic Services First Fixing	
AC2.17.350	Bldg 17b Mech: Domestic Services First Fixing	6					<input type="checkbox"/> Bldg 17b Mech: Domestic Services First Fixing	
AC2.17.360	Bldg 17b Civit: Metalwork, Internal Finishing & Finals	12					<input type="checkbox"/> Bldg 17b Civit: Metalwork, Internal Finishing & Finals	
AC2.17.370	Bldg 17b Elec: Domestic Services Second & Final Fix	6					<input type="checkbox"/> Bldg 17b Elec: Domestic Services Second & Final Fix	
AC2.17.380	Bldg 17b Mech: Domestic Services Second & Final Fix	6					<input type="checkbox"/> Bldg 17b Mech: Domestic Services Second & Final Fix	
AC2.17.390	Bldg 17b All Trades: Punchlisting, Testing & PreCommissioning	12					<input type="checkbox"/> Bldg 17b All Trades: Punchlisting, Testing & PreCommissioning	
AC2.17.400	Bldg 17b Process E/M: Install Water Quality Monitoring Equipment	6					<input type="checkbox"/> Bldg 17b Process E/M: Install Water Quality Monitoring Equipment	
AC2.17.410	Bldg 17c Civit: Substructure	9					<input type="checkbox"/> Bldg 17c Civit: Substructure	
AC2.17.420	Bldg 17c Civit: Superstructure	9					<input type="checkbox"/> Bldg 17c Civit: Superstructure	
AC2.17.430	Bldg 17c Civit: Blockwork, Precast, Int / Ext Wet Trades & Roofing	18					<input type="checkbox"/> Bldg 17c Civit: Blockwork, Precast, Int / Ext Wet Trades & Roofing	
AC2.17.440	Bldg 17c Elec: Domestic Services First Fixing	6					<input type="checkbox"/> Bldg 17c Elec: Domestic Services First Fixing	
AC2.17.450	Bldg 17c Mech: Domestic Services First Fixing	6					<input type="checkbox"/> Bldg 17c Mech: Domestic Services First Fixing	
AC2.17.460	Bldg 17c Civit: Metalwork, Internal Finishing & Finals	12					<input type="checkbox"/> Bldg 17c Civit: Metalwork, Internal Finishing & Finals	
AC2.17.470	Bldg 17c Elec: Domestic Services Second & Final Fix	6					<input type="checkbox"/> Bldg 17c Elec: Domestic Services Second & Final Fix	
AC2.17.480	Bldg 17c Mech: Domestic Services Second & Final Fix	6					<input type="checkbox"/> Bldg 17c Mech: Domestic Services Second & Final Fix	
AC2.17.490	Bldg 17c All Trades: Punchlisting, Testing & PreCommissioning	12					<input type="checkbox"/> Bldg 17c All Trades: Punchlisting, Testing & PreCommissioning	
AC2.17.500	Bldg 17c Process E/M: Install Water Quality Monitoring Equipment	6					<input type="checkbox"/> Bldg 17c Process E/M: Install Water Quality Monitoring Equipment	
<b>Facility 15 - Drainage Lagoon</b>		470					<b>Facility 15 - Drainage Lagoon</b>	



	<p>QATAR GENERAL ELECTRICITY &amp; WATER CORPORATION - TENDER No GTC 626/2014  <b>CONSTRUCTION OF MEGA RESERVOIR PRPSs - PACKAGES A, B, C, D &amp; E</b>  <b>PRELIMINARY (TENDER) SCHEDULE - PACKAGE A, PRPS 1</b></p>	<p>Primavera P6 Project Reference: 4857.0.Submit  Run Date &amp; Time: 14-Sep-14 @ 16:00  Checked: DW      Page 13 of 15</p>
---	--	--



QATAR GENERAL ELECTRICITY & WATER CORPORATION - TENDER No GTC 625/2014

CONSTRUCTION OF MEGA RESERVOIR PRPSs - PACKAGES A, B, C, D & E

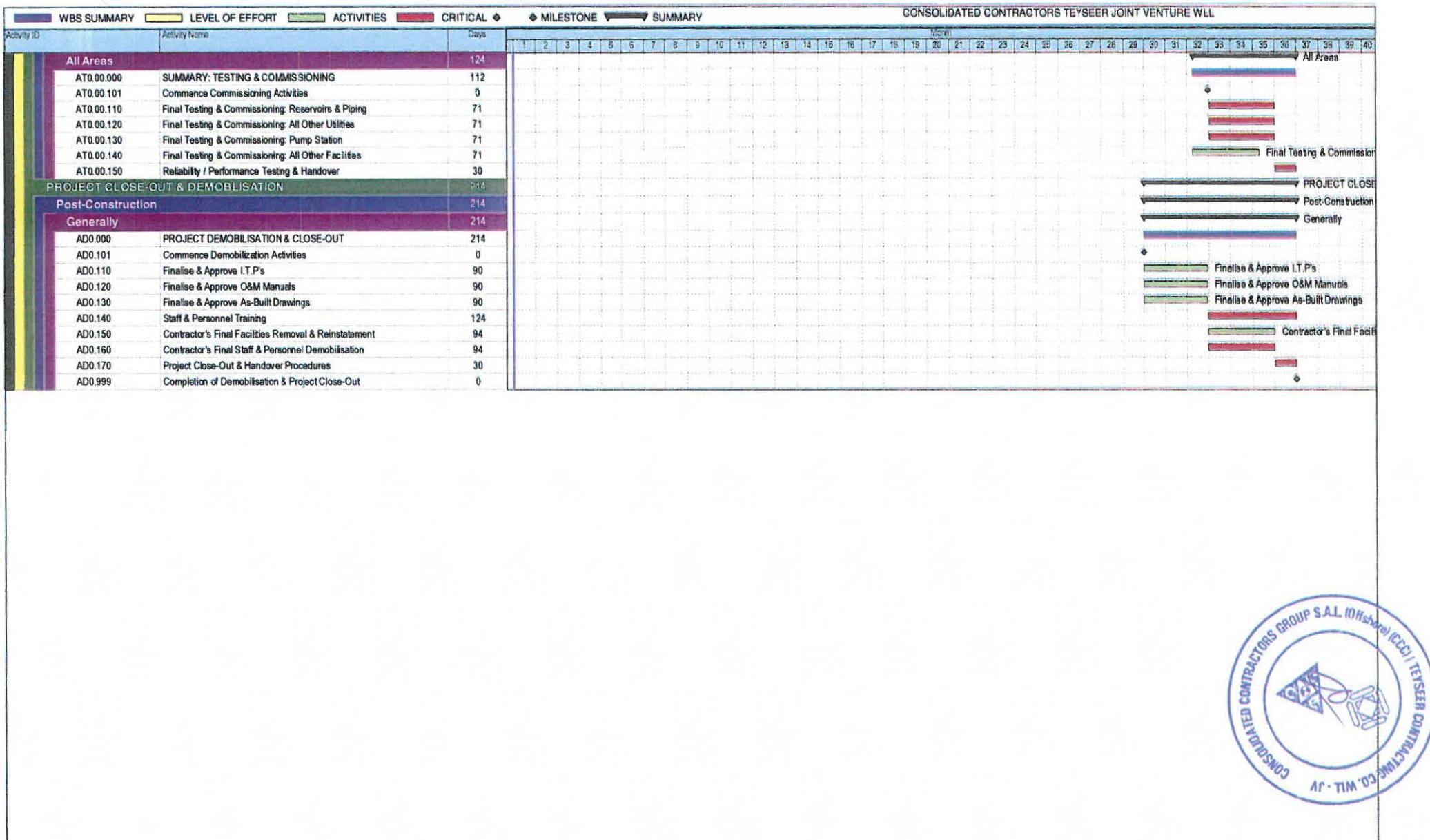
PRELIMINARY (TENDER) SCHEDULE - PACKAGE A, PRPS 1

Primavera P6 Project Reference: 4857.0.Submit

Run Date & Time: 14-Sep-14 @ 16:00

Checked: DW Page 14 of 15



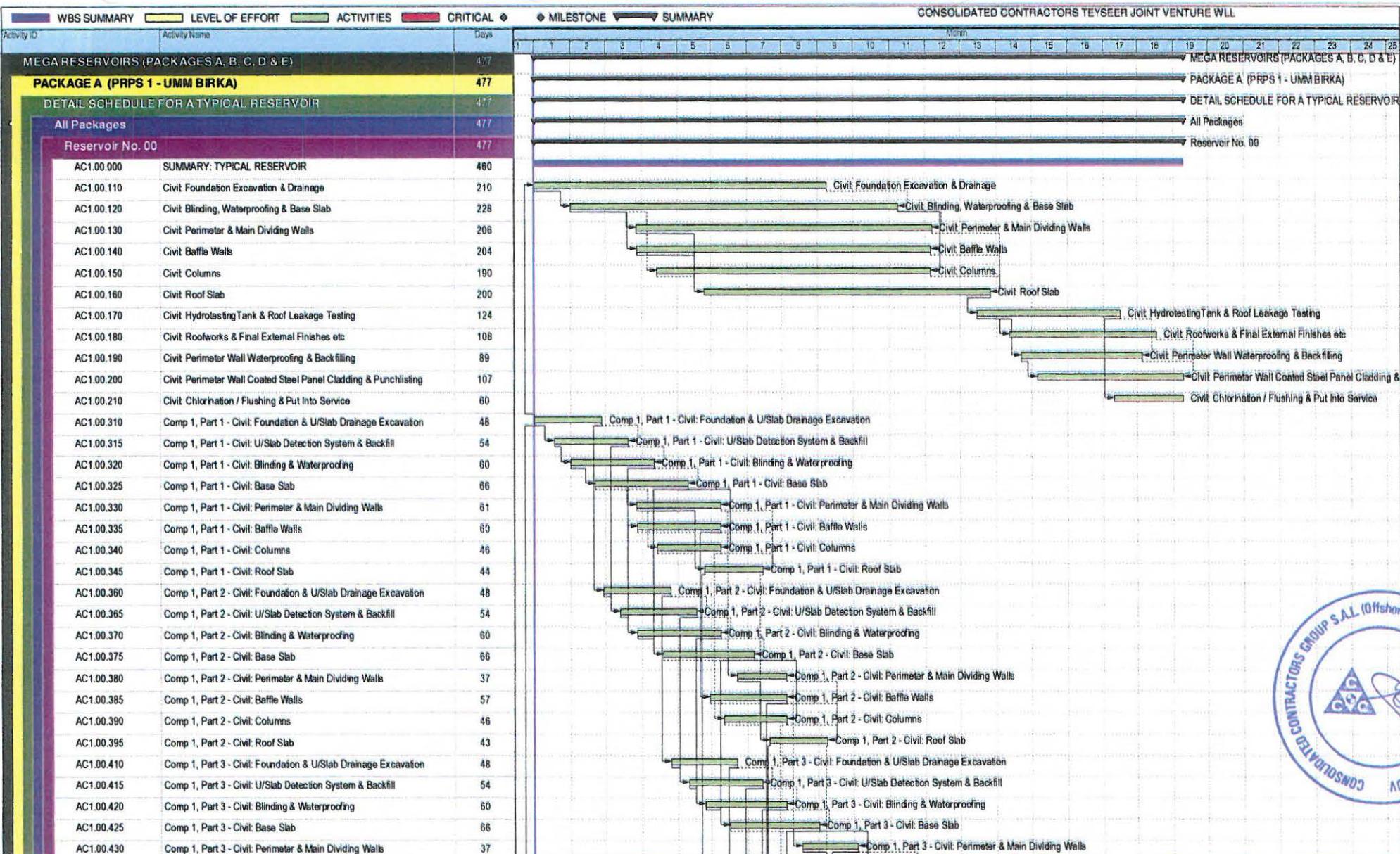


**QATAR GENERAL ELECTRICITY & WATER CORPORATION - TENDER No GTC 626/2014**

**CONSTRUCTION OF MEGA RESERVOIR PRPSs - PACKAGES A, B, C, D & E**

**PRELIMINARY (TENDER) SCHEDULE - PACKAGE A, PRPS 1**

Primavera P6 Project Reference: 4857.0.Submit  
Run Date & Time: 14-Sep-14 @ 16:00  
Checked: DW Page 15 of 15



QATAR GENERAL ELECTRICITY & WATER CORPORATION - TENDER № GTC 626/2014

Primavera P6 Project Reference: 4857.0.Submit

CONSTRUCTION OF MEGA RESERVOIR PRPSs - PACKAGES A, B, C, D & E

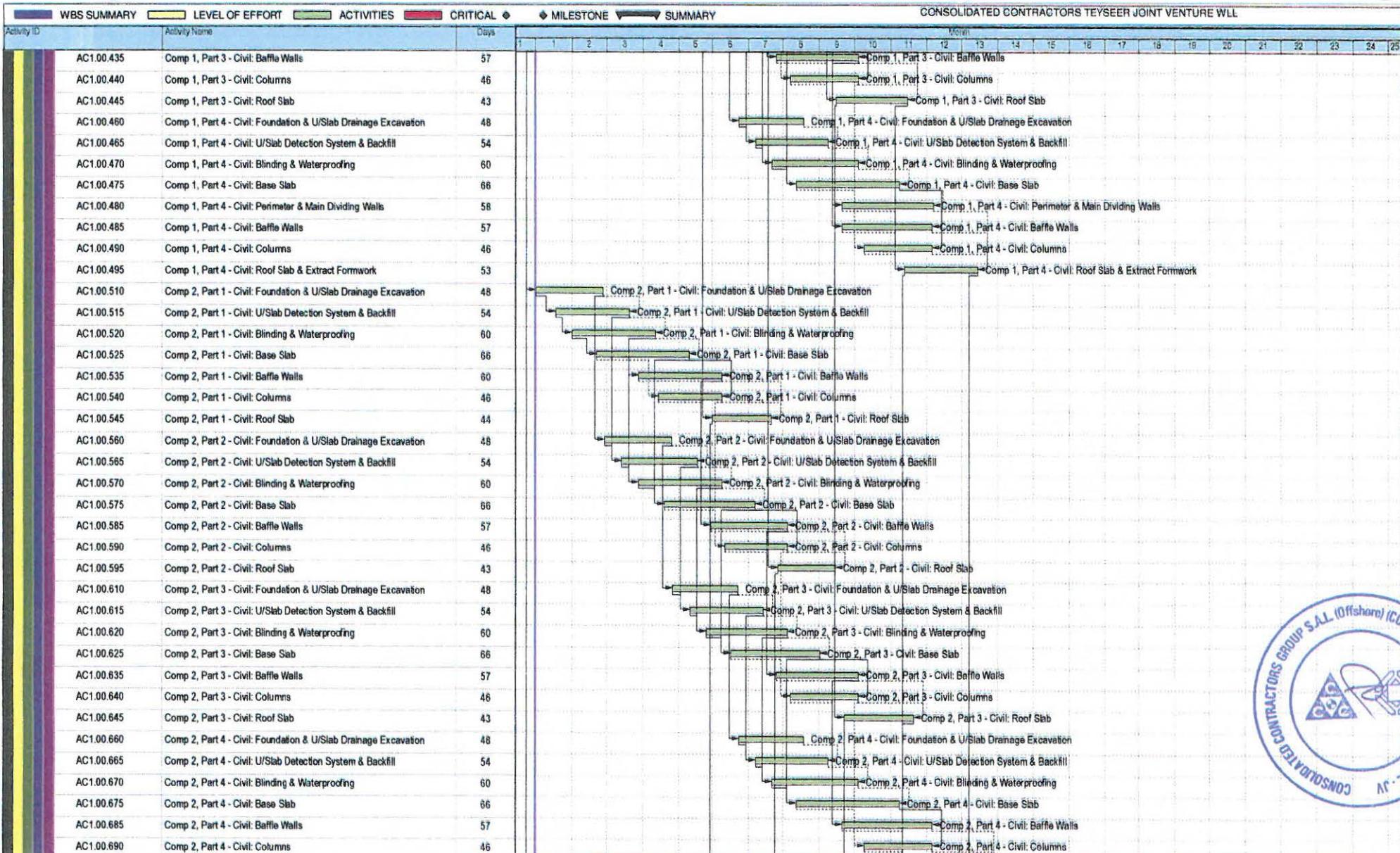
Run Date & Time: 14-Sep-14 @ 18:00

PRELIMINARY (TENDER) SCHEDULE - DETAIL SCHEDULE FOR A TYPICAL RESERVOIR AT PACKAGE A, PRPS 1

Checked: DW

Page 1 of 4





QATAR GENERAL ELECTRICITY & WATER CORPORATION - TENDER No GTC 626/2014

CONSTRUCTION OF MEGA RESERVOIR PRPSs - PACKAGES A, B, C, D & E

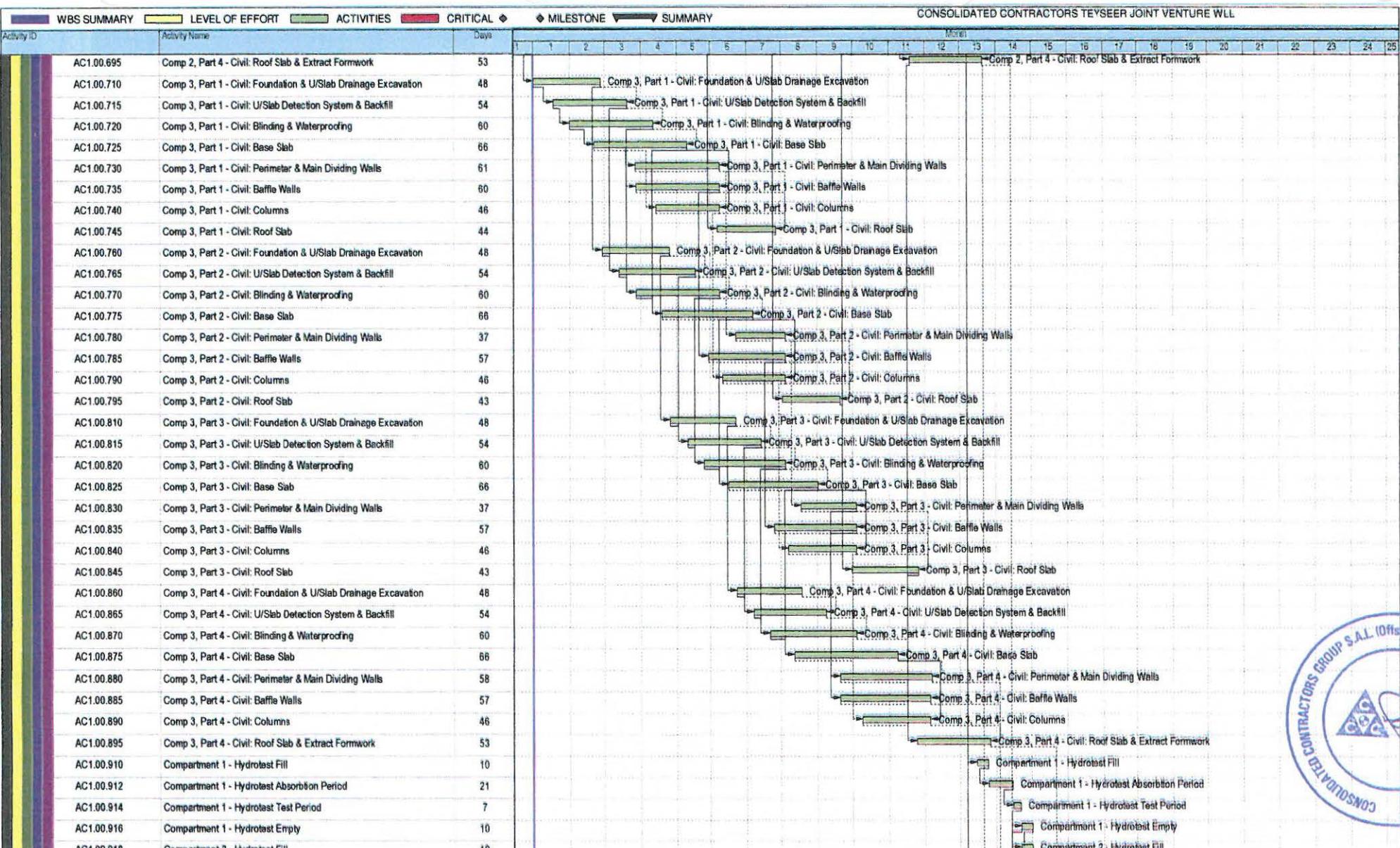
PRELIMINARY (TENDER) SCHEDULE - DETAIL SCHEDULE FOR A TYPICAL RESERVOIR AT PACKAGE A, PRPS 1

Primavera P6 Project Reference: 4857.0.Submit

Run Date & Time: 14-Sep-14 @ 18:00

Checked: DW

Page 2 of 4



QATAR GENERAL ELECTRICITY & WATER CORPORATION - TENDER No GTC 626/2014

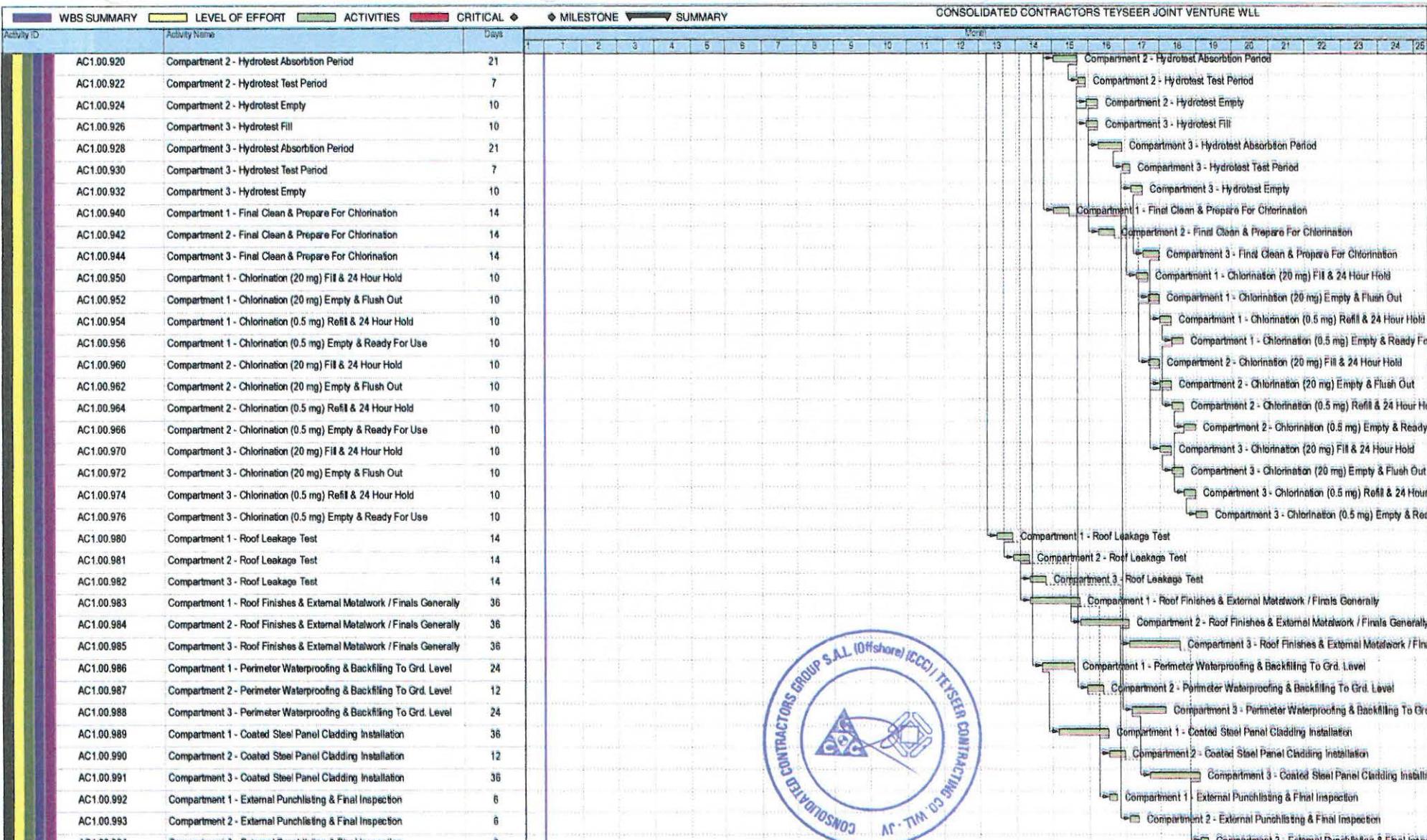
CONSTRUCTION OF MEGA RESERVOIR PRPSs - PACKAGES A, B, C, D & E

PRELIMINARY (TENDER) SCHEDULE - DETAIL SCHEDULE FOR A TYPICAL RESERVOIR AT PACKAGE A, PRPS 1

Primavera P6 Project Reference: 4057.0.Submit

Run Date & Time: 14-Sep-14 @ 18:00

Checked: DW      Page 3 of 4



QATAR GENERAL ELECTRICITY & WATER CORPORATION - TENDER No GTC 626/2014

CONSTRUCTION OF MEGA RESERVOIR PRPSs - PACKAGES A, B, C, D & E

PRELIMINARY (TENDER) SCHEDULE - DETAIL SCHEDULE FOR A TYPICAL RESERVOIR AT PACKAGE A, PRPS 1

Primavera P6 Project Reference: 4857.0.Submit

Run Date & Time: 14-Sep-14 @ 18:00

Checked: DW

Page 4 of 4



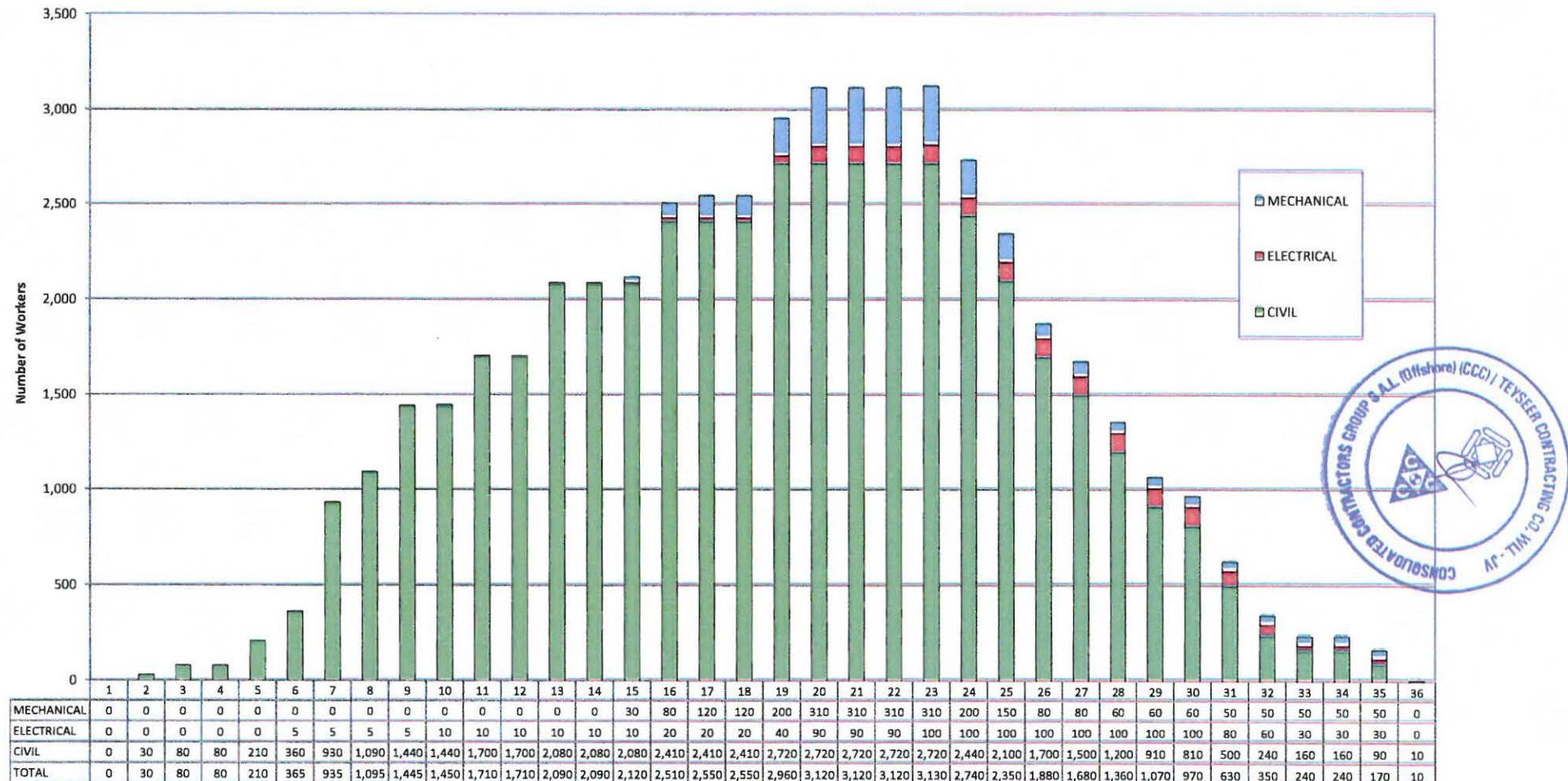
## **APPENDIX H – ANNEXURE 1**

## **MANPOWER & CONCRETE HISTOGRAMS**





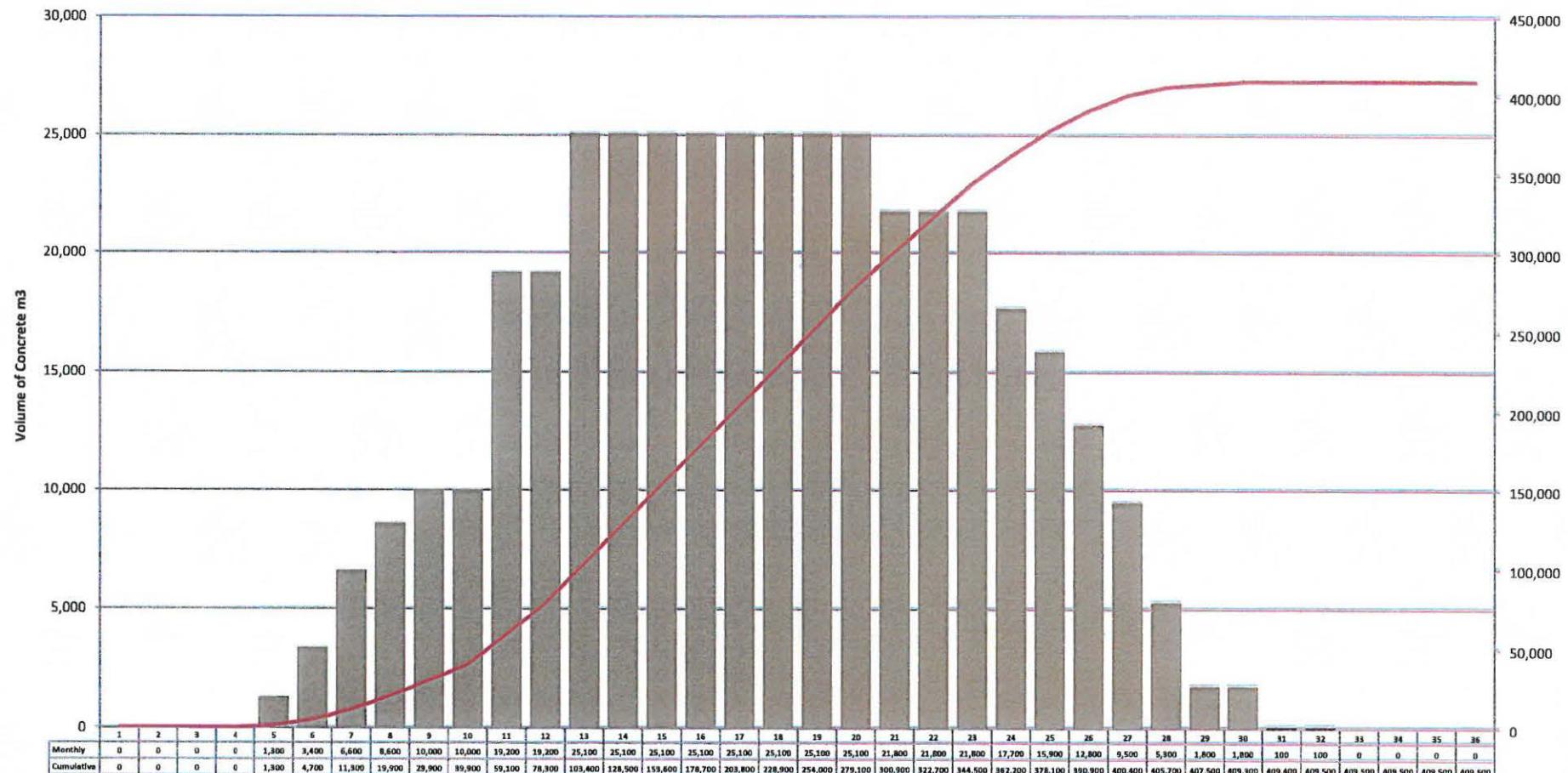
MEGA RESERVOIRS, QATAR - PACKAGE A, PRPS 1  
Total Direct Manpower - By Type of Work





## MEGA RESERVOIRS, QATAR - PACKAGE A , PRPS 1

### Concrete Histogram



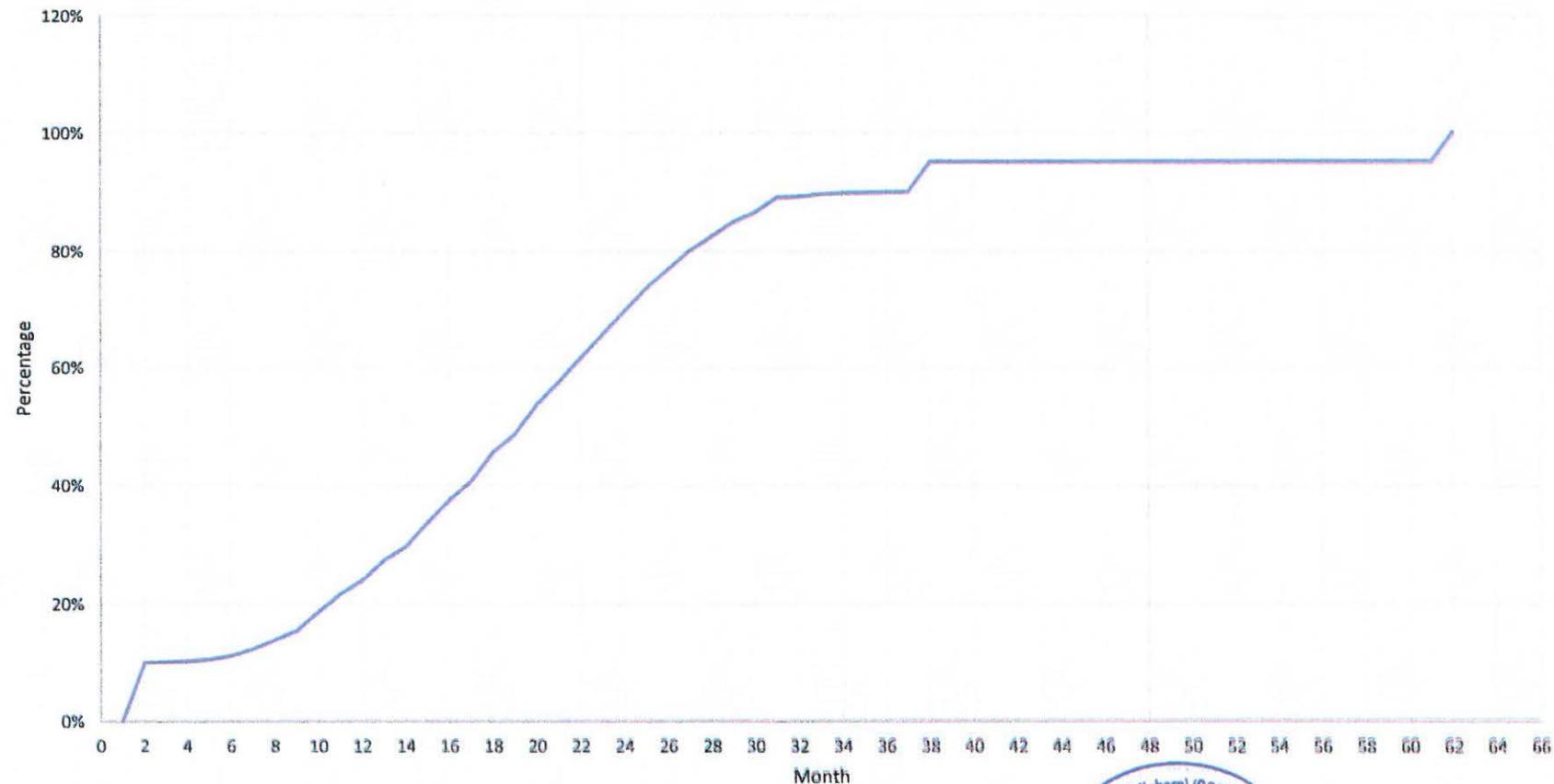
## **APPENDIX H – ANNEXURE 1**

## **PROGRESS CASH FLOW & S-CURVE**



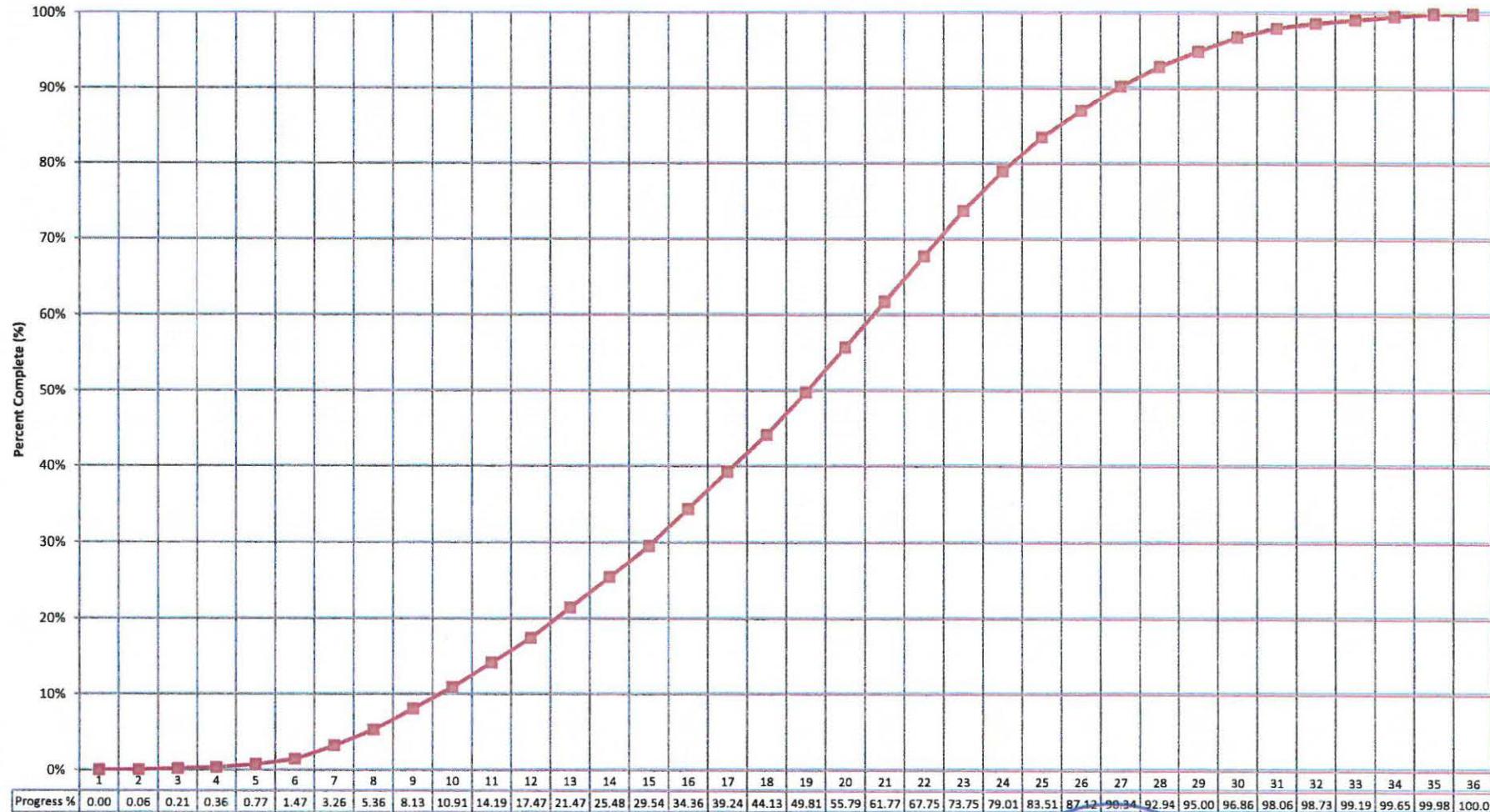


### Construction of Mega Reservoirs PRPS 1 (Package A) Cash Flow Diagram





MEGA RESERVOIRS, QATAR - PACKAGE A, PRPS 1  
Project Progress "S" Curve



**SECTION 16: APPENDIX H  
CONTRACT EXECUTION PLAN  
2. Method Statement**



**Qatar General Electricity & Water Corporation**  
Tender NO. GTC 626/2014  
**Construction of Mega Reservoir PRPSs**  
**(Packages A, B, C, D & E)**

## **APPENDIX H**

### **ANNEXURE (2) CONTRACTOR METHOD STATEMENT**

Contractor shall provide a detailed method statement and procedures detailing the proposed method of executing the work, in accordance with Contract Execution Plan.

Please find enclosed herein the proposed detailed Method Statement.





## APPENDIX H – ANNEXURE 2

### CONTRACT EXECUTION PLAN

#### Tender Method Statement

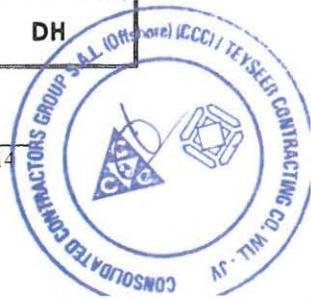
#### PART 1 – MANAGEMENT STRATEGIES

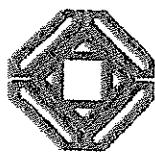
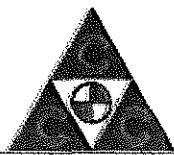
#### Construction of Mega Reservoir PRPSs (Package A)

#### PRPS facility at Umm Birka (PRPS 1)



Project Title	Tender No	Prepared By	Reviewed by
Mega Reservoir PRPS Package "A", Qatar	T4857	Tim Ashton	DH

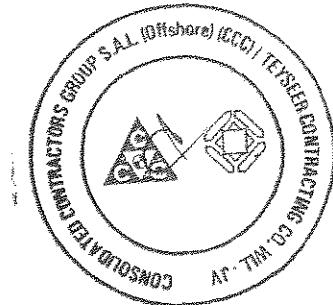


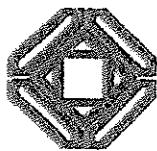
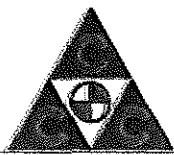


## MEMORANDUM OF PROCEDURE CONTENTS

### PART 1 – MANAGEMENT STRATEGIES:

1. Executive Summary
2. Scope of Work
3. Design Management Strategy
4. Mobilization
5. Temporary Site Facilities
6. Management Roles and Responsibilities
7. Plant & Equipment
8. Procurement Strategy
9. Sub-contractor Management and Co-ordination
10. Project Control - SYSTEMS
11. Project Controls – SCHEDULE
12. Project Controls – COST
13. Programme Reporting
14. Risk Management
15. Health and Safety
16. Environment Protection
17. Quality Assurance and Quality Control
18. Project Handover
19. Demobilization
20. Interfaces with Third parties & Other Contractors
21. Training to be provided





## 1.0 Executive Summary

The submission is made as a **Consolidated Contractors Group S.A.L. (Offshore) (CCC)** and **Teyseer Contracting Company W.I.L. Joint Venture**, referred to as "THE JV" within this document.

This Method Statement "MS" reflects the basis on which THE JV tender and preliminary program of works have been prepared and how THE JV propose to construct the Works if awarded the Contract. It should be read in conjunction with other documents that form part of the tender submission.

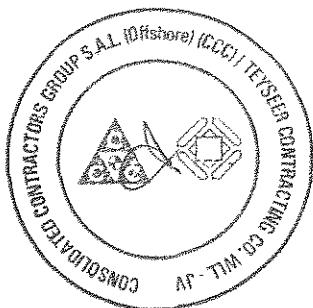
- Program of Works.
- Quality Control Plan.
- Health & Safety Plan.

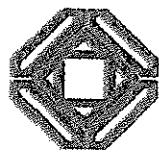
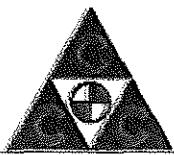
As the Time for Completion is a crucial aspect of the Contract, THE JV have developed construction programme solutions and also ensured the necessary resource capability and capacity to complete the whole of the Works within thirty six (36) months from the Effective Date of Contract.

On contract award, further studies will be carried out and detailed method statements for specific items of work will be issued as required.

Subject to availability at the time of Contract award, THE JV may mobilize alternative equipment and resources to those mentioned in this Method Statement.

Within one month after signing the Contract, the project team will fully develop this tender Method Statement and submit for the approval of the Owner. The approved document will take into account all contractual documents and data, becoming the main document to guide the site team and the Owners Representative through the management of the entire project.





## 2.0 Scope of Work

### Project Overview

Due to the continuous growth and development in Qatar, and the consequent forecast increase in water demand, Qatar General Electricity & Water Corporation (Kahramaa) is implementing the Water Security Mega Reservoirs Project to provide a minimum of 7 days Strategic Water Storage within its network.

The Project will construct water storage reservoirs at five new Primary Reservoir Pumping Stations (PRPS) sites which are located in the vicinity of the Qatar Utility Corridor (QUC):

- Package A - PRPS 1 at Umm Birka.
- Package B - PRPS 2 at Umm Slal.
- Package C - PRPS 5 at Al Thumama.
- Package D - PRPS 3 at Rawdat Rashed.
- Package E - PRPS 4 at Abu Nakhla.

The new PRPS sites will be connected to existing and future desalination plants through large diameter pipelines (Corridor Mains) that are to be constructed within the QUC.

Water from the PRPS sites will be distributed using a network of Transmission Pipelines.

Kahramaa intend to implement the Mega Reservoir Project under a number of separate contracts for pipeline construction, PRPS site construction and for an integrated SCADA and control system.

The contracts for construction of the pipelines will include several contracts for construction of the Corridor Pipelines and Transmission Pipelines that are located within the QUC, and a contract for construction of Transmission Pipelines that are located outside of the QUC.

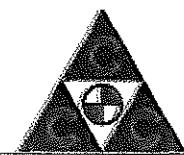
**This Contract is for the development of details (where indicated), procurement, construction and testing of Package A for the PRPS facility at Umm Birka (PRPS 1).**

### Brief Scope of Work

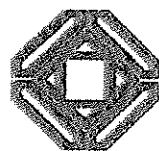
The scope of this Contract is to construct, install and complete the reservoirs, pumping stations, pipework, mechanical, electrical, ICA, civil, structural, architectural and building work for the complete PRPS facility at Umm Birka as detailed on the drawings. The contract includes connections 1 metre inside the site boundary to pipelines laid by others. The contract also includes some elements of design as specified.

The site is within an existing quarry. However excavation will be required to achieve the required formation levels as shown on the drawings.





**TENDER NO. GTC 626/2014**  
**CONSTRUCTION OF MEGA RESERVOIR PRPSS**

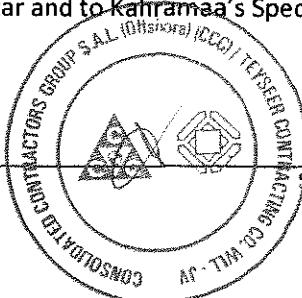


**Technical Offer**

The Works include, but are not limited to, the following:

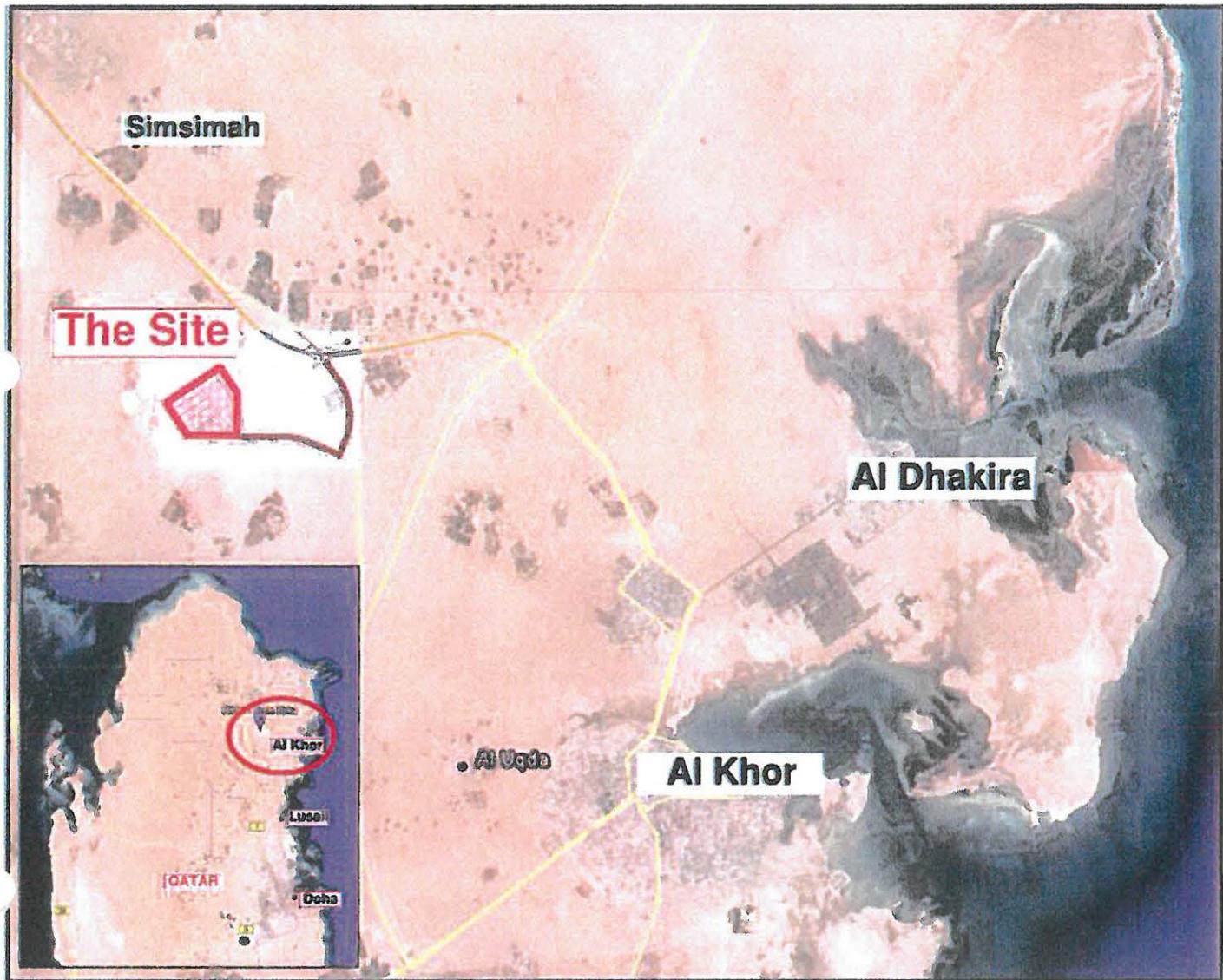
1. Site Establishment
2. All temporary works including design
3. Construction of reinforced concrete reservoirs
4. Excavation backfilling and construction of pipelines, cable ducts, chambers.
5. Supply and installation of carbon steel and ductile iron pipes, valves and fittings including all coating, wrapping and jointing materials, thrust restraint.
6. Connection to existing pipelines constructed by others.
7. Construction of reinforced concrete and blockwork pumping stations, guard houses, control room, electricity sub-stations, transformer buildings, generator buildings, workshop, chlorination building, water testing facility, kiosks.
8. Preparation of shop drawings, procurement, installation, testing and commissioning of all mechanical, electrical, instrumentation and control plant including, but not limited to, pumps, motors, cables, control panels, generators, transformers, switchgear, surge vessels, chlorine storage and dosing equipment, fuel tanks, pumping station pipework, lifting equipment, SCADA system.
9. Refine surge analysis and detailing of surge suppression system based on approved selected pumps
10. Construction of reinforced concrete lined drainage lagoons.
11. Backfilling of excavated areas using material stockpiled on Site by others or using selected excavated material.
12. Testing, cleaning, sterilising of the Works.
13. Supply of electrically driven vehicles for site use including all required recharging facilities.
14. Internal and external roads to provide access to, within and around the Site, including parking areas, turning and access areas, tanker filling station, signage and markings.
15. Hard and soft landscaping including planting and irrigation.
16. Site boundary wall including access gates, barrier arms, security.
17. Erection and maintenance of temporary Site boundary fence until the date of the Taking Over Certificate (TOC) for the whole of the works. Dismantling and removal of the Site boundary fence after the date of the TOC.

All activities shall be performed and completed in accordance with the rules, regulations, restrictions, obligations and codes of practices of the State of Qatar and to Kahramaa's Specifications and Standards.



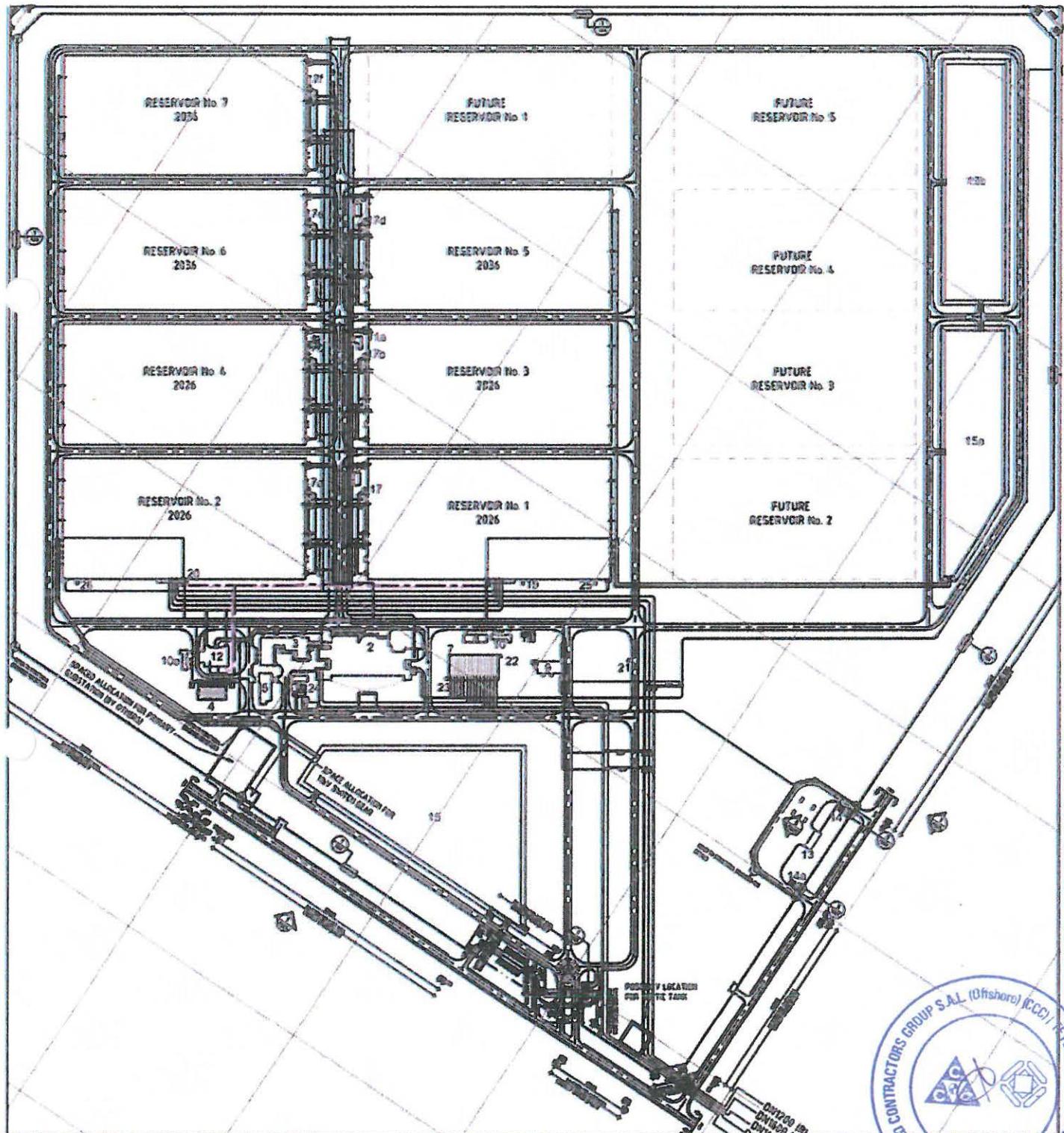


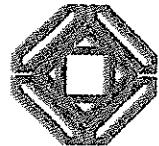
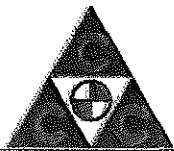
## 2.1 Site Location Plan





## 2.2 Layout of Works





### **3.0 Design Management Strategy**

This is a Build Only Contract.

The Client will supply to THE JV all "Issued For Construction" (IFC) drawings as detailed in the Contract. THE JV site engineering team will prepare all other drawings required for design development and shop drawings, as-built drawings and schedules for submission to the Engineer for approval, all as detailed in the Contract documents.

THE JV will satisfy themselves that the issued drawings are "fit for construction" but there is no requirement for design verification by a third party. THE JV will produce bar bending schedules based on the issued reinforcement drawings.

THE JV Engineering team will undertake the design of all temporary works required to facilitate construction and testing of the permanent Works. In addition they will be responsible for the design of trenchless road and utility crossings, including all necessary surveys, investigations and obtaining approvals, which will be undertaken in close co-ordination with a specialist micro-tunneling subcontractor.

The Works shall be executed in accordance with the latest edition of the following Government specifications, regulations, notices, and circulars:

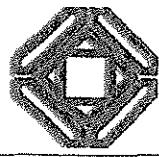
1. The General Specification of Main Laying Materials for Waterworks published by Qatar General Electricity & Water Corporation (Kahramaa), Version 2005.
2. Kahramaa General Specification for Main laying Contracts latest Version.
3. The Qatar Construction Specifications, 4th Edition, 2010, published by the Qatar General Organization for Standards and Methodology.
4. The Code of Practice and Specification for Road Openings in the Highway.
5. The Guide for Civil Users of Explosives in Qatar.
6. The Survey Manual.
7. The Qatar Traffic Manual.
8. The Qatar Work Zone Traffic Management Guide, published by ASHGHAL (Public Works Authority)
9. Ooredoo, Electrical Cables relative regulations and standard.
10. Any current and relevant regulation, notice or circular issued by the Ministry of Municipal affairs & Urban planning (including the previous Ministry of Public Works and the previous Ministry of Industry and Public Works), the previous Ministry of Electricity and Water or of the appropriate local Municipality prior to the date of the letter of invitation to Tender.
11. AWWA C651-05 Disinfecting Water Mains.

THE JV shall be fully responsible for obtaining all necessary excavation permits and permissions, except those normally obtained by the Kahramaa, prior to commencement of the Works.





**TENDER NO. GTC 626/2014**  
**CONSTRUCTION OF MEGA RESERVOIR PRPSS**

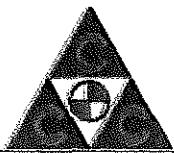


**Technical Offer**

These will include but not be limited to:

- a. General excavation permits;
- b. Specific excavation permits relating to road crossings, etc.;
- c. Provision of all necessary bonds required by the permits;
- d. Permission in respect of erection of site offices, labour camps, stores, etc.;
- e. Permission for shut down of water pipelines from Kahramaa;
- f. Permissions associated with working in proximity to electric and communication cables, gas lines, Ooredoo cables, etc.;
- g. Hot work, crane lifting/ critical lifting operation permits;
- h. Permits associated with drill and blast operations.





## 4.0 Mobilization

THE JV team will utilise this initial period to ensure that site mobilisation is planned in detail and executed efficiently to meet the time deadlines on this project. Following here is a brief description of how we will approach this crucial stage of the project.

### a. Contractual

THE JV will proactively engage with the Owners Representative to ensure all contract deliverables are put in place at earliest possible time in order to allow all parties focus on the design and execution of the works without distraction.

These deliverables include:

- Contract Insurances.
- Performance Bonds.
- Advance Payment Guarantees.
- Collateral Warranties.
- Contract Programme.
- Any other requirements to facilitate completion of the Contract formalities.

### b. Initial Procurement Action

A Procurement Schedule will be submitted for the Owners Representative for approval.

The initial procurement actions are:

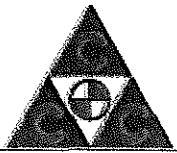
- Sub-base fill material.
- Concrete Supply.
- Reinforcement Supply.
- Waterproofing subcontract.
- Long Lead Equipment.

MEP input is also required early in the project in relation to preparation and submission of shop drawings for underfloor services and builders work in connection with MEP.

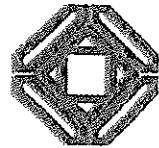
### c. Project Launch Meeting with the Owners Representative

Within one week of signing the contract, THE JV will request an initial "Project Launch Meeting" with the Owners Representative.





**TENDER NO. GTC 626/2014**  
**CONSTRUCTION OF MEGA RESERVOIR PRPSS**

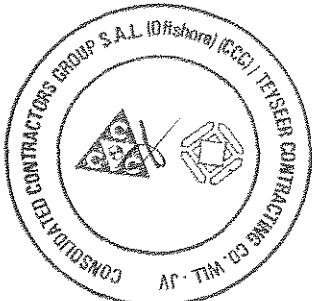


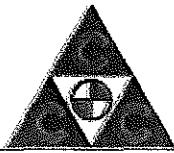
**Technical Offer**

At this meeting we intend introducing all interested parties to the Contract and would hope to lay the groundwork for a proactive, collaborative and team work approach between the Owners Representative and THE JV.

Specifically we would like to:-

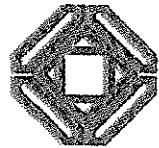
- A. Introduce Key Project Personnel.
- B. Submit and agree our proposals for site establishment / mobilisation.
- C. Confirm the procedure for communication (including electronic transmissions).
- D. Present the outline Project Schedule for discussion.
- E. Review and verification of all project reference documents.
- F. Finalise Contract Protocols and Procedures for:
  - Document and drawing Issue by the Owners Representative.
  - Document issue.
  - Shop drawing procedures.
  - Submittals and approvals procedures.
  - Variation procedures.
  - Making contact with other stakeholders.
- G. Agree on a list of and timescale for specific Method Statements, Material Submittals and Shop Drawings for initial works including:
  - Site Facilities.
  - Setting Out Control Plan.
  - Backfill material.
  - Drainage material.
  - Service Ducts.
  - Waterproofing of foundations and service tunnels.
  - Rebar.
  - Concrete.
  - Formwork.
  - Holding Down Bolts.





**TENDER NO. GTC 626/2014**  
**CONSTRUCTION OF MEGA RESERVOIR PRPSS**

**Technical Offer**



H. Prioritize IFC Drawing Issue which will include:

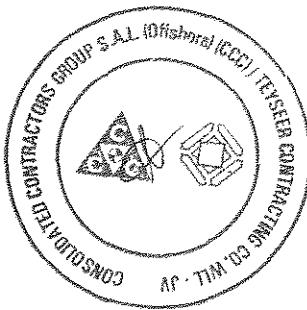
- Sub floor drainage and service ducts.
- Foundations to main building.
- Service Tunnels.
- Rising elements to ground floor.
- Packages of information for key trade subcontractors.
- Identifying Long Lead Equipment.

- I. Discuss co-ordination requirements with the Owners Representative appointed direct Contractors if applicable.
- J. Share contact details for various sections and departments in the Owner Representative and our project teams.
- K. Acquire contact details for all other interested stakeholders.
- L. Discuss our approach to overall project execution.
- M. Discuss our approach to Programme Control.
- N. Discuss the required approach to Change Control.
- O. Discuss Quality Control and Mock Up requirements.
- P. Agree a schedule for progress and technical meetings and attendance requirements as well as deliverables required from THE JV for these meetings.
- Q. Get an outline from each discipline head within the Owner Representative's Design Team, about their concerns, their hopes and aspirations for the project. These will be recorded and reviewed bi-monthly during the course of the project.

**d. Initial THE JV Technical Issues**

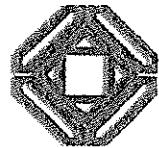
THE JV will undertake the following key initial technical activities on the site:

- A. Survey for existing Services.
- B. Site Survey.
- C. Carry out additional Site Investigation work where required.
- D. Establishment of Set Out Control Points.
- E. Prepare and issue submittals for early items as listed above.





**TENDER NO. GTC 626/2014**  
**CONSTRUCTION OF MEGA RESERVOIR PRPSS**



**Technical Offer**

- F. Prepare and issue builders drawings for early items as listed above.
- G. Development of Package Programmes and short duration programmes.
- H. Setting up Project Control Systems.
- I. Development of Project Quality Plan.
- J. Development of Health and Safety Plan.
- K. Development of Environmental Plan.

**e. Construction**

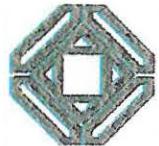
A site mobilisation team will be established on the site towards the end of the preliminary period.

A program of staff and labour recruitment will have been developed and shall then be instigated to meet the manpower build up schedules.

One of the early priorities will be to establish a small number of containerised site offices with suitable welfare facilities to form a pioneer camp in proximity to where the main site establishments will be located. This will form the launch pad for the construction and assembly of the main site compound. The site survey teams will commence their work of establishing the site control for setting out of the permanent works.

The programme for the mobilization of the major plant and equipment will be crucial to the success of this mobilisation phase. This programme will immediately be set in motion in a combined effort by the head office procurement department and plant departments.

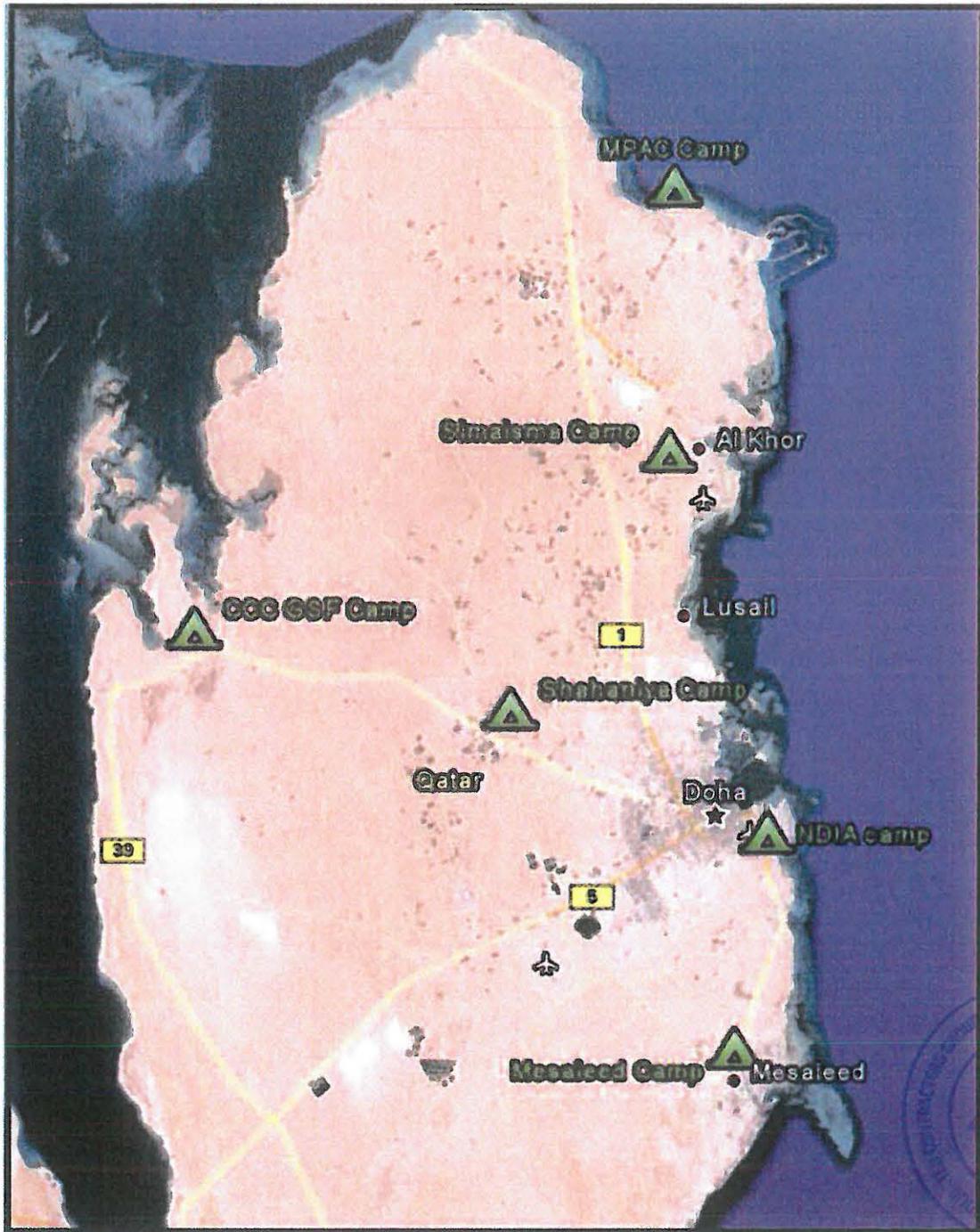




## **5.0 Temporary Site Facilities**

### **5.1 Labour Camp and Site Facilities**

THE JV have several existing camps in the region. One of these existing Labour Compounds will be utilized for this project.



THE JV main offices, facilities and storage area will be located within the limits of the site boundary.



TENDER NO. GTC 626/2014  
CONSTRUCTION OF MEGA RESERVOIR PRPSS



Technical Offer

