SPECIAL PROVISIONS

1. DESCRIPTION AND SCOPE OF WORKS:

1.1 DESCRIPTION OF WORK

The Project **"Construction of Additional 65 MDG Water Supply Scheme from Haleji to Pipri, Karachi Package # 01 (Construction of RCC Lined Canal & RCC Conduit from Haleji to Gharo pumping station including Revival of Haleji Lake and Re-Modelling of Reservoir Branch)**

1.2 SCOPE OF WORKS

a) The Bid submitted by the Tenderer shall cover cost, time etc. for execution, construction, completion and maintenance of the Project including all materials, labor tools and plants etc. complete in all respect.

b) The work shall, interalia, include the following:

i. Submission of methodology and time schedule for entire works.

ii. Ensuring minimal disturbance to facilities in operation around the project site.

iii. Safety devices, guide signs, barriers, hand rails and sign posts should be used to ensure safe execution of work.

iv. Site clearance and dismantling and shifting of obstructions, utilities, etc. before commencement of work, as directed.

v. All aspects of quality assurance (including load tests, quality control tests etc.) for various components of the work, as specified and as directed.

vi. Clearing of site and handing over of all the works, as specified.

vii. Maintenance of the completed works during the Defect Liability Period of maintenance as stipulated in Contract Documents.

viii. Submission of Shop Drawings before commencement of works and As-built drawings after completion of contract works and other related documents as specified in the contract.

ix. Any other item of work as may be required to be carried out for completion of works in all respects in accordance with the provisions of the Contract

2. ENGINEERS' SITE FACILITIES

2.1 GENERAL

The Contractor shall construct, a furnished **Field Office (approx. 250 Sqm.)** for the Engineer and his staff and shall provide proper maintenance and service during the whole contract period. The contractor shall also provide all consumable and pay for all other incidental or running costs and Provide and pay for all utilities, which include power, water supplies and telephone.

During the construction period of Engineer's Field Office, the Contractor shall provide a temporary accommodation in shape of potacabin for the use of Engineer and his staff.

All facilities shall be made available complete in all respect and ready for use within 15 (fifteen) days following Engineer's order to commence the work.

The Contractor shall be responsible for and take all necessary measures to ensure the security of the Engineer's site facilities and their contents at all times and shall employ necessary watchmen for this purpose.

2.2 LOCATION

The location of Engineer's offices which is to be agreed by the Engineer shall be an area approved by the Engineer and shall take into account the following general requirements.

2.3 FURNISHING AND EQUIPMENT FOR ENGINEER'S SITE FACILITIES:

Contractor shall provide the following office furnishings and equipment for Engineer's Office of the quality as approved by the Engineer:

A. Engineer's Office

1.	Office Table 5' x 3'	6 Nos.
2.	Standard office chairs.	24 Nos.
3.	Steel Filing Cabinets with 4 drawers with locks.	2 Nos.
4.	Uphostered Chairs	6 Nos.
5.	Electronic Scientific hand calculators	4 Nos.
6.	Regular supply of materials & stationery for office use (Computer Paper, Toner etc.)	As required
7.	Display board (4' x 6')	2 No.
8.	Office wall clock (battery powered)	4 No.
9.	Stationery set including drawing triangles	2 set
10.	Air conditioner 16,000 BTU	8 Nos.
11.	Vehicle 4 X 4 Toyota REVO (Fully loaded) Latest Model, or equivalent.	2 Nos.
12	Toyota Corolla GLi car 1600 cc (company fitted AC and with Driver)	2 Nos.

	Latest Model, or equivalent.	
13	Jimny Jeep 4 x4 1300 cc (company fitted AC and with Driver), Latest Model or equivalent.	6 Nos.
14	Totoya Hilux Double cabin 4 X 4, Latest Model, or equivalent.	2 Nos.
15	POL for vehicles	500 liter/pm / vehicle
16	Computer set Complete with Printer Latest models & UPS	4 set
17	Heavy Duty Photocopier Machine RICHO MP-2001 with Printer & Scanner	2 Nos.
18	Digital Cameras	2 Nos.
19.	Micro Wave	1 No.
20.	Refrigerator Large size	1 No.
21.	Water dispensers	2 Nos.
22.	Conference Table with chairs for 12 persons	1 No.
23.	Mobile Smart Phones latest model with 32 GB memory Card & battery charger	6 Nos.
24.	Laptop (i7) / Notebook brand new (Consultants & Employer)	2 Nos.
25.	Kitchen crockery & Utensils etc. accordingly.	
26.	Fire Extinguishers	4 Nos.
27.	Computer Tables	4 Nos.

The Engineer will check & verify the quality of office furnishings and equipments which will be supplied subject to approval of Engineer. The Contractor shall maintain the Site office and its contents in good condition to the satisfaction of the Engineer as long as the Engineer for the purpose of Contract requires them. The Contractor shall provide the Engineer with an office messenger.

The above equipment shall be in use of the Engineer and shall become property of the Employer and as such will be handed-over to the Employer in good working condition on completion of the project.

In case of non-provision of above facilities the same shall be arranged by the Employer / Engineer and will be deducted from any monies due / becoming due to the contractor by the employer along with 10% overheads till these facilities are provided satisfactorily to the Engineer.

Cost of all above facilities are deemed to be included in the contract Price and no additional payment shall be made by the Employer to the contractor under any circumstances.

B. Surveying Equipment

Contractor shall provide and maintain the following new surveying equipment for the official use by the Engineer's representative till completion of project. The Engineer will check & rationalize the quality of equipment after supply.

1. Electronic Total Station with all complete related accessories — 1 No.
2. Steel measuring tape 50 meter long. — 1 No.
3. Steel measuring tape 3 to 4 meter long — 2Nos.

Contractor shall provide adequate supplies of related expendable materials, i.e. field books, paper, rubber, pencils, pegs, brushes, paints etc. as required by the Engineer.

2.4 MAINTENANCE REQUIREMENT:

a) Maintenance Repairs, Replacement and Supply

The Contractor shall maintain the Engineer's Site office including the repair and / or replacement of any item, contained therein and the addition shall supply all materials as stipulated herein, including toilet paper, light bulb, fluorescent tubes, supply of water and electric power, mobile telephones, office consumable items and other services as herein specified.

b) Office staff / Security / Peons

The Contractor shall provide Office Staff as follows
Office assistant 4 Nos. Computer Operator 4 Nos. and 4 Nos. Office Support Staff. The services shall be performed on daily basis with personnel and programming of the work as approved and directed by the Engineer.

c) Janitorial Services

The Contractor shall provide all necessary janitorial services and supply for the entire Engineer's Site office. The services shall include floor servicing and cleaning toilets; windows washing etc. janitorial services shall be performed on daily basis with personnel and programming of the work as approved and directed by the Engineers.

d) Garbage and Trash Collection and Disposal

The Contractor shall maintain the Engineer's Site office in a neat and attractive manner and provide daily garbage and trash collection and disposal.

e) Air Conditioner and Fire Extinguisher Maintenance:

The Contractor shall maintain all fire extinguisher and air conditioner as recommended by the manufacturer and shall clean /

or replace air filters at regular intervals of one month or as otherwise directed by the Engineer.

f) Vehicle maintenance and repair:

The Contractor shall maintain the vehicle including provision of well qualified Driver with his monthly wages, repair and / or replacement of any item, includes replacement of Tyres, Tube and Oil lubricants etc. till final completion of the project.

All vehicles must be comprehensively insured.

Liability to third parties (including passengers whether the employer, his staff or others) for an unlimited indemnity in respect of death or personal injury and for the maximum indemnity reasonable, obtainable in respect of laws, destruction or damaged to property.

On completion of the project the vehicles will be handed over to the KW&SB authority with following conditions:

I. Vehicles shall be registered in the name of Employer.
II. All dues shall be cleared upto the handing-over date.
III. The vehicles shall be repaired upto the entire satisfaction of Employer and hand-over in good serviceable condition.

3. CONSTRUCTION PROGRAMME AND TIME SCHEDULES, PROGRESS CONTROL SYSTEM

3.1 GENERAL

a) Within fourteen (14) days after receipt of the Letter of Acceptance, the contractor shall submit to the Engineer-in-charge, for checking and approval, construction program and time schedules. These program and time schedules shall cover the activities of the Contractor for the Works for the period between receipt of written order to commence the Works and submittal of construction program and time schedules.

b) The construction program, time schedule and the general approach to the Works shall not, unless otherwise directed or permitted in writing by the Engineer-in-Charge, materially differ in its essence from the Program of Work and Methods statement submitted with the Tender

c) The submission to and approval by the Engineer-in-charge of such construction programmes, time schedules and the system or the furnishing of such particulars shall not relieve the Contractor of any of his duties or responsibilities under the Contract.

3.2 MONITORING AND UP-DATING OF CONSTRUCTION PROGRAM

During the execution and construction of the Works and till the issue of the last (if more than one) certificate of completion of the Works, the Contractor shad submit at monthly intervals or as required by the Engineer-in-charge, and one (1) week prior to submittal of monthly (or in exceptional circumstances), payment bills/estimates, Periodic Report on the construction program, time schedules and Material Status Reports with the contents.

3.3 PROJECT MEETINGS

a) To enable orderly review during progress of the works, and to provide for systematic discussion of problems, the Engineer-in-Charge will conduct project meetings throughout the construction period.

b) Persons designated by the Contractor to attend and participate in the project meetings shall have all required authority to commit the Contractor to solutions agreed upon in the project meetings.

c) Except as noted below for pre construction meeting, project meetings would be held fortnightly. Mutually acceptable schedule for meetings will be established after necessary coordination.

d) To the maximum extent practicable, project meetings will be held at the Site.

e) Pre-construction meeting will be scheduled within ten (10) days after the Contractor has submitted the Security Deposit to the Employer. The Engineer, authorized representatives of the Contractor and all his major Sob-Contractors will attend the meeting. The Engineer will advise other interested parties and request their attendance.

f) The Engineer-in-charge, will compile notes of each project meeting and will furnish three copies to the Contractor. The Contractor may make and distribute such other copies as he wishes if so permitted in writing by the Engineer-in-Charge.

3.4 CONTRACTOR'S EMPLOYEES

The Contractor shall provide and employ on the Site in connection with the execution and maintenance of the Works.

a) Only such Professional Engineers, technical assistants as are skilled and experienced in their respective fields and such sub-agents, foremen and leading hands competent to give proper supervision to the work they are required for, Such skilled, semi-

skilled and unskilled labor as is necessary for the proper and timely construction, execution, completion and maintenance of the Works.

b) It must be ensured that the construction work and the work for repair and maintenance of equipment can be adequately supervised by the aforementioned and other professional engineering staff on each shift, to the satisfaction of the Engineer-in-charge. All material tests will be carried out only under the direction and supervision of the respectively competent professional engineering staff of the Contractor.

3.5 OBJECTION OF THE ENGINEER-IN-CHARGE

The Engineer-in-Charge, shall be at liberty to object to and require the Contractor to remove from the Works, within one week of a written request from the Engineer-in-charge any person employed by the Contractor in or about the construction execution or maintenance of the Works who in the opinion of the Engineer-in-charge misconducts himself is incompetent or negligent in the proper performance of his duties or whose employment is otherwise considered by either the Engineer-in-charge to be undesirable and such person shall not be again employed upon the Works without the written permission of the Engineer-in-charge. Any person so removed from the works, shall be replaced as soon as possible by a competent substitute approved by the Engineer-in-charge.

3.6 REVISIONS

The contractor shall make only those revisions to approved construction programmed and approved materials status reports as are approved by the engineer.

3.7 OTHER SKILLED PERSONNEL

The contractor must make available experienced and reliable, equipment operators, trained to handle respective equipment, for each lift.

Only certified welders should execute welding work. The contractor is therefore obligated when employing such welders to demand pertinent certificates and/or to undertake standard trade tests through his welding engineer, in presence of the engineer-in-charge. In case, the engineer-in-charge has any doubts with respect to the qualification of individual welders, he can at any time demand that such tests be repeated.

4. APPLICABLE STANDARDS

4.1 GENERAL

Throughout the tender documents, reference is made to codes and standards which establish qualities and types of workmanships one material and which establish methods for testing one reporting on the pertinent characteristics.

The terms 'codes' and/or 'standards' shall be deemed to include, in their meaning, published specifications guides standard practices commentaries and committee reports. Unless otherwise expressly stated,

wherever any code or standard specified or referred to in the Tender Documents or in such Tender-Documents-specified-or-referred standard or code its latest edition issue and/or revision is to be complied with. In case of variance between the provisions of two standards and / or codes, the consultant wilt decide as to which standard or cone will govern with his decision being final and binding on all parties.

The reference to codes or standards (as defined in the foregoing paragraph) in the Tender Documents, with or without setting-out of their texts to the Contract Documents in mandatory language or any other style of language, shall not in any way vitiate or, invalidate such reference compliance with such reference or the Contract.

4.2 QUALITY ASSURANCE

In procuring all items used in this Works, it is the Contractor's responsibility to verify the detailed requirements of the specifically named codes and standards and to verify that the items procured for use in this Works meet or exceed the specified requirements. The Contractor will bear the cost of all submittals required by the Contract Documents.

4.3 MANUFACTURER'S LITERATURE

Where content of submitted literature from manufacturers includes data not pertinent to the submittal, it shall be clearly indicated by the contractor which portion of the contents is being submitted for review.

4.4 COLOURS AND PATTERNS

Unless the precise colour and pattern is specifically described in the Contract Documents, and whenever a choice of colour or patterns is available in a specified product, the contractor shall submit accurate colour and pattern charts to both the Engineer-in-Charge for review and selection.

5. SUBSTITUTIONS

The Contract is based on the standards of quality established in the Contract Documents. All materials equipment and products proposed fo r use, including those specified by required attributes and performance shall require approval by the Engineer-in-Charge, before being incorporated into the Works.

The Contractor must not substitute materials equipment or methods unless the Engineer-in-Charge has specifically approved such substitution for the Works.

6. SETTING-OUT

6.1 The Contractor shall establish such other setting-out control points temporary benchmarks as necessary for the execution and construction of the Works and agree their co-ordinates and levels with the Engineer.

6.2 Where any setting-out control point/temporary bench mark is located beyond the limits of the Site the Contractor shall make arrangements with land owners and tenants for and pay any fees in connection with the establishment installation and maintenance of such control points/temporary bench marks end when directed by the Engineer, shall

remove such control points/ Temporary bench marks and reinstate the ground to the satisfaction of the landowners tenants and the Engineer.

6.3 The Contractor shall carefully maintain and protect the setting-out control points/bench marks and shall ensure that they are adequately triangulated so that they can be re-established at any time. The Contractor shall check the co-ordinates and levels of the setting-out control points/bench marks at monthly intervals and immediately notify the Engineer-in-Charge of their correctness or of any discrepancies.

6.4 The Contractor shall safeguard all control point's stakes grade marks and benchmarks made or established in the Works. He shall re-establish them if disturbed, for any whatsoever, removed without authorization and rectify those detected improper due to not maintaining or protecting.

6.5 Coordinates of the points defining the main horizontal and vertical geometry of the Works will be issued during the course of the Works.

6.6 The Contractor will set out the lines and levels of the concrete, steel and earth structures as per the Drawings. The lines and levels will be frequently checked and the Contractor will be solely responsible for all errors that may be subsequently found and he will remedy theirs.

6.7 The Contractor shall ensure that at the junctions of the Works with the existing roads and surfaces and at the interfaces of the existing structures the horizontal and vertical control lines of the Works are perfectly coordinated and continuous with the existing roads and surfaces. At the commencement of the Contract the Contractor shall prepare detailed topographical drawings of these areas as directed by the Engineer and submit three (3) copies to the Engineer.

6.8 If certain portions of the complementary/allied works have already been executed by other contractors on or adjacent to the Site, the Contractor is to check all the lines and levels of such works already performed especially those having interface with the Works of the contract and to report in writing any discrepancies within seven (7) days of the commencement of the Works. The Contractor will be responsible for any errors that may subsequently be found in the visible portions of such other works and for any remedial rectification and replacement measures of the Works of Contract and such other works to the extent of their inter-relationship and interfaces.

7 DRAWINGS OF TEMPORARY WORKS

As soon as practicable after receipt of the letter of acceptance, the contractor shall submit to the Engineer-in-Charge for his comments, complete drawings of all temporary works together with the calculations relating to their strength and anticipated, deflections. The drawings shall show the method proposed for the erection of the various parts of the temporary works and their application to the carrying out of permanent works. All temporary works shall be properly designed and substantially constructed to carry the loads to which they will be subjected

and all the drawings and calculations pertaining thereto shall be forwarded to Engineer-in-Charge before the contractors intends to commence the works.

Now standing the comments by the Engineer-in-Charge on any submitted design for and temporary works, the contractor shall remain wholly and entirely responsible until the removal of such works for their efficiency security and maintenance and for all obligations and risks in regards to such works specified or implied in the contract and he shall reinstate same at his own entire cost should any mishap or accident occur causing damage or injury thereto; subject however to such express provisions of the contract as may be applicable in the case of such damage or injury.

Following the consent to the contractor's proposals by the Engineer-in-Charge, and/ or with concurrence of the vetting consultant, additional copies of the drawings and calculations including any modifications or amendments shall be delivered to the Engineer-in-Charge.

8. NAME BOARDS

The Contractor shall erect only such name boards at suitable locations as the Engineer, with the concurrence of the Employer, may approve. Those must be of simple and becoming appearance. They shall display the name of the project, the Employer, the Vetting Consultant, the Engineer, the Contractor, the approved main Sub-Contractors and such other information as the Engineer may approve.

9. The contractors may have to make temporary approach road etc. at their own cost to facilities carriage of materials, such approach road shall be aligned in manner approved by the Engineer-in-charge.

10. The Contractor shall comply will all rules and regulation of City District Governments in respect of work being carried out under this contract.

11. AGENCIES AND ORGANIZATIONS

Applicable standards and codes listed in the specific specifications and other parts of the Contract Documents include, but are not necessarily limited to, standards and codes promulgated by the following agencies and organizations:

- AASHTO = American Association of State Highway and Transportation Officials, 444 North Capital Street NW Suite 225, Washington, DC 20001, USA.
- ACI = American Concrete Institute, Box 19150, Redford Station, Detroit, Michigan 48219, USA.
- AI = The Asphalt Institute, Asphalt Institute Building, College Park, Maryland 20740, USA.
- AISC = American Institute of Steel Construction, Inc., 400 North Michigan Avenue, Chicago, Illinois 60611, USA.
- ANSI = American National Standards Institute (successor to USASI and ASA), 1430 Broadway, New York, New York 10018 USA.

- ASCE = American Society of Civil Engineers, 341, E 47th Street, New York, New York 10017, USA.
- ASLEC = Association of Street Lighting Erection Contractors, 36 Ebury Street, London SWl X9AY, UK.
- ASTM = American Society for Testing and Materials, 1916 Pace Street, Philadelphia, Pennsylvania 19103, USA.
- AWS = American Welding Society, Inc, 2501 N. W. 70 Street, Miami. Florida, 33125, USA.
- BRE = Building Research Establishment, Department of the Environment, England (see HMSO).
- BS = British Standard (see BSI).
- BSI = British Standards Institution, 2 Park Street, London W1SOBS, UK.
- C&CA = Cement and Concrete Association, 52 Grosvenor Gardens, London SWIM DAN, UK.
- DISC = Concrete Reinforcing Steel institute, 228 North LaSalle Street, Chicago, Illinois 6D610, USA.
- CS = Concrete Society, 52 Grosvenor Gardens, London SWIS QAQ UK.
- DIN = DIN Dautsches Institute fur Hamming eV., Berlin, West Germany; South Verlag GmbH, Berlin, West Germany.
- HMSO = Her Majesty's Stationery Office, 49 High Holborn, Logos WCIV 6HB, UK.
- IEE = The Illuminating Engineering Society, York House, 199 Westminster Bridge Road, London SET 7UN, UK.
- IES = The III Illuminating Engineering Society, York House, 199 Westminster Bridge Road, London SE1 7UN, England,
- IRC = The Indian Roads Congress, Jamnagar House. Shahjahan Road, New Delhi, 110011, India
- IS = Indian Standard (see 151).
- ISI = Indian Standards Institution, Manak Bhavan 9 Bahadur Shah Zafar Road, New Delhi, 110001, India.
- IstructE = The Institution of Structural Engineers, IT Upper Belgrave Street, London SW1X 88N, UK.
- ISO = International organization of Standards
- NBCP = National Building Code of Pakistan, Department of Environment & Urban Affairs, 11 Al-Markaz, F-6, Super Market, Islamabad, Pakistan.
- NEC = National Electrical Code (see NFPA).

NEMA = National Electrical Manufacturers Association, 155 East 44th Street, New York, New York 10017, USA.

- NHB = National Highway Board, Ministry of Communications, Govt. of Pakistan, 11 A1- Markaz, F-9, Super Market, Islamabad, Pakistan.
- MCA =Portland Cement Association, 5420 Old Ordhard Read, Skokie, Illinois 60077, USA.
- PCI=Pre-stressed Concrete Institute, 20North Wacker Drive, Chicago 60606, USA
- PR = Pakistan Railways, Ministry of Railways, Govt. of Pakistan, Islamabad.
- PS = Pakistan Standard (see PSI).
- PSI = Pakistan Standards Institution, Mubarak Manzil, Garden Road, Karachi-03, Pakistan.
- ROSPA = The Royal Society for Prevention of Accidents, Cannon House, The Priory Street, Birmingham 84 6B5, England.
- BBC = Road Research Laboratory, Department of the Environment, England (see HMSO)
- SEE = Standing Rates Committee, Government of Sindh, Sindh Secretariat, Shahra-e-Kamal Ataturk, Karachi, Pakistan.
- SSPC = Steel Structures Painting Council, 4406 5th Avenue, Pittsburgh, Pennsylvania 15213, USA.
- WPHBC = Code of Practice, Highway Bridges, 1967 (see HDP).