

TERMS OF REFERENCE

ENGINEERING DESIGN AND CONSTRUCTION SUPERVISION CONSULTANT (EDCS) **Pilot Phase –Cluster South-III**

1. Introduction

The Government of Punjab has launched a project for service improvement in rural areas of the Punjab through Punjab Rural Municipal Services Company (PRMSC) which has been established under Section 42 of Companies Act 2017. Through various studies, it has been proven that poor condition of WASH not only affects the health of masses, but it also adversely affects the economic growth of the region. Recently, a number of mega initiatives have been launched by the Government, and international organizations in the urban areas of all provinces of Pakistan for the improvement of water and sanitation but the rural areas still remain neglected. Rural settlements of Punjab, which hold 73 % the province's population living in 23,000 revenue villages, are in dire need for investments to improve WASH.

Outcomes of Pre-Feasibility Studies (PFS) and sector assessments, have identified requirements for improving climate resilience and planned economic growth of 2,000 villages which will be the part of the project. Due to the gravity of the situation, the Government of the Punjab, has endorsed selection of these 2,000 revenue villages, having 2009 large and 85 small habitations for the water supply, sanitation and solid waste management interventions. Poverty, water contamination, stunting and sanitation condition of the areas have been taken as basic parameters for selection of project sites / tehsils. Over 6.0 million rural residents shall be served under the said component including multi-village water supply scheme & 100% solid waste through recycling, composting and management of residual waste. The interventions shall be implemented in phased manner

Government of Punjab, with the assistance of World Bank, will finance complete detailed engineering designs through Engineering, Design & Supervision Consultancy Services (EDCS) under the pilot phase of the project in revenue villages of following Tehsils of Geographical based Cluster named as "Central - I" of selected districts given hereunder. The services will assist in; (i) design documentation, including Sub-scheme/Project Document (PC-I), Bill of Quantities, for water supply and sanitation services to achieve economies of scale and desired results, and (ii) resident supervision of infrastructure development:

Sr. #	Districts	Names/Number	
		Tehsils	No. of Revenue Villages
South - III			
1	D.G.Khan	Taunsa	10
2	Rahim Yar Khan	Liaquatpur	6
3	Rajanpur	Rojhan	1
TOTAL =	3	3	17

All the relevant details along with coordinates are given in Annex – I.

2. Objective of the Assignment

The TORs of the subject assignment have been framed to carry out following functions:

- (i) Review/ update of detailed Environment and Social Safeguard Documents i.e., Environmental and Social Management Plans (ESMPs), Initial Environmental Examination (IEE) / Environmental Impact Assessment (EIA), Resettlement Action Plan (RAP) / Abbreviated Resettlement Action Plan (ARAP) under the World Bank guidelines and Punjab Environmental Protection Department,
- (ii) Review / update of existing detail designs or modify the existing design if required based in the site conditions, preparation of Bill of Quantities, construction drawings, Sub-Scheme Documents (PC-Is), Bidding Documents and Construction Supervision of the entire sub- projects via detailed Topographic Surveys, authentication of technically suitable and hydraulically viable water supply and sewerage systems (100% solid waste through recycling, composting and management of residual waste), socio-economic and engineering surveys, and
- (iii) Specialized services during Construction phase as Resident Supervision.

3. Scope of Consultancy Services

The consultant shall perform, but not limited to, the following tasks in close coordination with Punjab Municipal Services Company which is also Head Office of the Company (PRMSC-HO):

3.1: DETAILED ENGINEERING DESIGN, DRAWINGS, SPECIFICATIONS AND BILL OF QUANTITIES:

The Consultant's inputs shall include but not limited to the following tasks, to be carried out for each revenue village:

(i) DETAILED ENGINEERING DESIGN

- (a) Review and update field surveys (geotechnical [(field investigations along with in-situ & lab testing) to arrive at the geotechnical parameters required for the design], engineering, site investigations, topographic etc.) and studies to establish firm basis for design,
- (b) Review and update environmental and social safeguard studies (including but not limited to EIA, IEE, land acquisition and resettlement plans, health and safety management plan, gender action plan for the proposed investments,
 - (i) Review and update the technical due diligence and geotechnical assessment, for the proposed priority sub-projects,
 - (j) Review and update the final detailed engineering designs of priority sub-projects, technical specifications, detailed cost estimates (including costs for addressing environmental concerns based on ESMP), climate resilience measures, as per international best practices. The detailed engineering designs of the priority sub-projects should be prepared using integrated rural planning approach keeping the future needs in mind and new technologies,

- (k) Identify the infrastructure (if any) to be replaced/ removed in relation to any priority sub-projects and prepare its detailed implementation/relocation plan(s),
- (l) Assist in preparing the subproject(s) PC-1 or other PIMU (PRMSC-HO) required documents/requirements for administrative/ management approvals for starting of the procurement process. The Consultant will be responsible for the costing of the detail engineering design of priority sub-projects to be finalized by the PIMU / Punjab Rural Municipal Services Company (PRMSC) and LG&CD

3.2. CONTRACT ADMINISTRATION & CONSTRUCTION SUPERVISION AS RESIDENT ENGINEER

The Consultant while supervising the construction works, shall also make all necessary arrangements for quality control and implementation of the civil works sub-schemes/project(s), as Resident Engineer. The task of the Consultant shall include, but not be limited to, the following:

- (i) Supervision of civil works and contracts shall be carried out based on the World Bank standards and guidelines. The consultant on behalf of the Client will administer both the goods and the civil work contracts, make engineering decisions, be responsible for quality and quantity assurance, provide general guidance and furnish timely responses to the suppliers and contractors and ensure that all clauses of the contract agreements between the suppliers/contractors and PIMU (PRMSC-HO) are implemented,
- (ii) Assure submission(s) of contractual documents and advise PIMU (PRMSC-HO) on the adequacy of the Contractor's insurance policies, performance guarantees and advance payment guarantees,
- (iii) Give notice to contractor to commence the works,
- (iv) Provide advance payment advice to PIMU (PRMSC-HO) concerning schedule of handing over of project sites, and any anticipated delays due to various reasons,
- (v) Liaise with PIMU/PRMSC-HO, PRMSC-TO, District office, Village Councils and other concerned parties/consultants, as required, to ensure that the sub-scheme/project sites are made available to the Contractors on time and that any issues related to land acquisition and utilities relocations are resolved in minimum time,
- (vi) Assess the competence of the contractors' inputs in material, labor selection, construction methods, and safety measures,
- (vii) Monitor the progress of sub-schemes/projects against the contractual construction schedules/workplans. Warrant that the Contractor submits regular updated workplans that take into account the time passed and work completed. A realistic timetable for completing the works within the specified contract period must also be furnished periodically. Initiate action if the Contract is clearly going to time overrun,
- (viii) Assure the receipt of the materials and maintain permanent records of all warranties required under terms and conditions of the Contract Agreement,
- (ix) Without relieving the Contractors of their obligations under the Contract, check and approve the contractors' Working Drawings, Method Reports and Temporary Works proposals,

- (x) Carry out any subsequent design changes, and expeditiously issue supplementary/revised drawings, site instructions, variation orders and day work orders to avoid delay to the works and to ensure that the works are executed in accordance with Contract/on time,
- (xi) Ensure that the Contractors shall have all necessary data including the right- of-way limits, centerline, and grade etc.,
- (xii) Check that the lines, levels and layouts of the construction work follows with those specified in the contract document,
- (xiii) Develop and implement a quality monitoring plan to ensure the works comply with the specifications in the contract documents regarding materials used, and technical requirements etc. by preparing QA/QC Manual and will be responsible for Quality Assurance i.e. project components are tested according to the specifications as per the Contract; also make a report for imported items for efficiency and quality including testing on manufacturing site test bed and check duty & import documents of each item being imported for the project,
- (xiv) Inspect quarries, borrow pits, and crushing plants,
- (xv) Conduct material tests and approve the sources of materials, as per standards,
- (xvi) Continuously inspect the soils and materials, construction operations and the works with regard to workmanship and compliance with the specifications. Approve or disapprove and certify the works that conform to the specifications and maintain permanent records of the results of all the tests,
- (xvii) Give notice (s) to the Contractors of any defects and deficiencies, and issue instructions/directions for the removal and replacement of the improper works, as per the contract. If required, order suspension of the work(s) under intimation to the PIMU and/or recommend to PIMU/ PRMSC and sought other recourse available under the Contract,
- (xviii) Monitor and appraise progress of the works, and maintain a day-by-day project log which shall record all activities/progress pertaining to the administration of the contract, liaise with MIS to update real time data, requests taken and orders given to the Contractors, and any other information which may be at a later date be of assistance in resolving queries which may arise concerning execution of the works,
- (xix) Check the Contractor's periodic statement of the estimated value of work-completed and certify that these statements clearly and accurately describe the value of work executed on the value of the quantities of the items in the Bill of Quantities,
- (xx) Verify and endorse the interim payment certificates to PIMU/ PRMSC for payment to the Contractors based on inspected Work Items, having regard to any contractual provisions for advance payment, variation of price, escalation, Comparative statement according to the acceptance letter and exchange rate fluctuation etc. Certify and endorse the completion of the activities/works or parts thereof in order to process final payments to the Contractors,
- (xxi) Assist in clarification of Contract Documents, explain and/or reconcile any ambiguities and or discrepancies that may occur in the Contract Documents, and assist PIMU (PRMSC-HO/TO) along with all relevant documentation needed for

settling disputes/claims (if any) with the Contractors, and suggest recommendations to PIMU (PRMSC-HO) for resolving the Contractors' escalation claims, contract time extensions (if needed), variation orders, subletting of work, additional cost, rate and price fixing etc.,

- (xxii) Advise PIMU (PRMSC-HO)/PRMSC-TOs on the need for effective and efficient liaison with the local authorities, police, landowners, utility owners, the public and others affected by the works in progress in order to minimize or avoid unnecessary delays or disputes,
- (xxiii) In close coordination with PIMU (PRMSC-HO)/PRMSC-TOs and the local authorities, prepare a traffic management plan where the sub-projects are in the densely populated areas of the city,
- (xxiv) Jointly inspect with PIMU (PRMSC-HO)/ PRMSC-TOs /Village Councils the completed civil works, and assist in formal taking over process, completion certificates and review and approve "as built" drawings and plans (as the case may be) and provide report(s) affirming that the contracts have been completed in a satisfactory manner and develop a checklist for re-works or incomplete works. In addition, review the final commissioning tests being conducted upon completion of each construction package, such as, network, pumping stations, approve acceptance of performance in accordance with the targets set in the tender documents/workplan, approve the content of the O&M manuals and advise the PIMU (PRMSC-HO), PRMSC-TOs and Village Councils on delivery of certificate of performance,
- (xxv) Inspect the completed work periodically during the defect liability period within the term covering the Consultant's Agreement, prepare lists of deficiencies/incomplete works (if any) in consultation with PIMU (PRMSC_HO), and carry out supervision of the rectification works, and issue the Defects Liability certificates after the rectification of notified defects by the Contractors,
- (xxvi) Establish a comprehensive monitoring system that entails maintaining site records including site correspondence, inspection records, test data, site diaries, records of meetings, financial records, progress records etc.
- (xxvii) Support the PIMU (PRMSC-HO) and consultants to implement the safeguard related policies, prior to starting work and as work progresses, which may include the environment management plans, IEEs, resettlement plan, public consultation, verification of the resettlement compensation payment, and preparation of all safeguard monitoring reports (bi-weekly/monthly),
- (xxviii) Make available record to the auditor appointed by AG office of Pakistan and draft replies and clarifications along all supporting documents against any observation raised by auditor, to facilitate the Client,
- (xxix) Assist PIMU (PRMSC-HO)/PRMSC-TOs in preparing monthly and quarterly progress and monitoring reports for submission to various authorities, including the World Bank,
- (xxx) Coordinate with contractors and local authorities on obtaining clearances during construction and commissioning of works,
- (xxxi) Provide any other technical services requested by PIMU (PRMSC-HO)/PRMSC-TOs

and other Consultants under the project, as mutually agreed, and

- (xxxii) Shall be responsible to make visit arrangements by any Government/Donor delegation or authority/management and shall prepare presentation arrangement when required.
- (xxxiii) Shall use inspections app of PRMSC for physical and financial progress of work on daily basis
- (xxxiv) Shall use PRMSC Application for check requests and IPCs of contractors

3.3 Linkage with MIS:

PRMSC has developed and deployed a Management Information System (MIS). The System will ensure adequate monitoring of project activities including flow and utilization of funds, tracking water and sanitation service delivery performance and progress towards project outcomes, transparency in decision making, and accessibility of complaints and grievance system to project beneficiaries. The MIS system is designed to receive data from multiple sources including PRMSC Tehsil Office field staff, customers, community-level Ambassadors of Change (AoC), and others that receive permission from the Government of Punjab. Parts of the MIS will be publicly accessible, to aide transparency and accountability, while some sections that include personal data or sensitive financial information will have restricted access.

MIS System shall also be employed for contract management support through tracking of physical and financial progress of infrastructure development. This will include data on; progress milestones related to design, procurement, physical and financial progress including finalization of detailed design, initiation and completion of bidding process, contract award, procurement of equipment, groundbreaking, construction progress, handover to PRMSC, etc. All data on construction will be geo-tagged and will include time-stamped images. The System shall also be used for service delivery monitoring, including all billing data and complaints logged from households/villages.

The Engineering, Design and Construction Supervision Consultant shall be extending their technical support in all the phases of MIS System development, deployed, maintenance and reporting through it, to PRMSC. The consultant to have all contract administration including but not limited to IPCs, physical and financial progress, etc.; on Management Information System (MIS)

4. Staffing:

The quality of staff, expertise and their numbers, shall be the key factors in evaluation of the consultant's proposal. The firm may propose inputs required to complete the assignment within the contractual time. The Consultancy firm must be specialized and have capacity to carry out Design, Construction Supervision, Contract Management and Environment & Social Management Services of the proposed works. However, an indicative staff requirement with expertise, is given hereunder:

Sr. #	Description of Personnel	Qualification
Key Staff		
1	Team Leader	BSc Civil Engineering with 20 or above years' experience (Age Limit-55 years). Preference will be given to applicants who have relevant experience of site execution in Water Supply and Sanitation sector.

2	Deputy Team Leader/ Resident Engineer	BSc Civil Engineering with 15 or above years' experience Age Limit: 45 Years Preference will be given to applicants who have relevant experience of site execution in Water Supply and Sanitation sector.
3	Design Engineer	Bachelor's Degree or above in Civil Engineering or relevant discipline. Minimum 15 years of professional experience in project designing, planning and project management pertaining to Water supply works. Working experience in World Bank/Foreign Funded Projects will be an added advantage. Registered with relevant professional bodies.
4	Groundwater Specialist	Bachelor's Degree or above in Civil Engineering or relevant discipline. Minimum 15 years of professional experience in groundwater analysis related to project designing, planning and project management pertaining to rural development. Experience in multi-village sub-projects will be preferred. Working experience in World Bank/Foreign Funded Project is a plus. Registered with relevant professional bodies.
5	Environmental Management Specialist	Master's degree or equivalent in environmental engineering/science. The candidate should have minimum 15 years of experience of which at least 10 years on environmental impact assessment of rural infrastructure development projects and experience of preparing environmental management plans. The candidate must have full knowledge of the national/provincial regulatory framework as well as the World Bank's guidelines, procedures and operational policies/directives. Experience of working as environmental expert in at least two World Bank or multilateral funded projects with similar level of complexity (for E&S assessment and management) is required.
6	Resettlement/Social Safeguards Specialist	Post-graduate degree in a relevant social science (resettlement studies, development studies, sociology, anthropology, rural studies etc.). At least 15 years of experience working on involuntary resettlement and preparation of RAPs. Should also have experience as team leader. Some experience should also be in rural development projects. Experience of working on World Bank funded projects will be advantageous.
Non-Key Staff		
1	Assistant Quality Control Engineer/ Monitoring & Evaluation Officer	Bachelor's Degree or above in Civil Engineering or relevant discipline. Minimum 10 years of overall professional experience in Construction, Quality Control of Civil works at large water supply and sewerage projects. Working experience in World Bank/Foreign Funded Projects will be an added
2	Quantity Surveyor	Bachelor's Degree or above in Civil Engineering or DAE Civil. Minimum 10 years of overall professional experience in surveying especially at large water supply and sewerage projects. Working experience in World Bank/Foreign Funded Projects will be an added advantage. Registered with relevant professional bodies.
3	Site Inspector	Bachelor's Degree or DAE Civil or relevant discipline. Minimum 10 years of overall professional experience in project execution, construction supervision and project management of water supply and sewerage projects. Working experience in World Bank/Foreign Funded Projects will be an added advantage. Registered with relevant professional bodies.

4	Surveyor	Bachelor's Degree or DAE Civil or relevant discipline. Minimum 10 years of overall professional experience in surveying especially at large water supply and sewerage projects. Working experience in World Bank/Foreign Funded Projects will be an added advantage. Registered with relevant professional bodies.
5	Contract and Procurement Specialist	Bachelor's Degree or above in Civil Engineering or relevant discipline. Minimum 15 years of professional experience in Contract Management and Procurement of large infrastructure projects. Working experience in World Bank/Foreign Funded Projects will be an added advantage. Registered with relevant professional bodies.

4.1: Indicative time allocation of staff

The services will require up to 245 person-months of national consultant inputs. Expected inputs for key and non-key experts are set out in the table below:

Sr. #	Description of Personnel	No. of Persons	Person Months	
			Design Review & Construction Supervision	
1	Team Leader	1	4.5	4.5
2	Deputy Team Leader/ Resident Engineer	3	9	27
3	Design Engineer	1	4.5	4.5
4	Groundwater Specialist	1	4.5	4.5
5	Environmental Management Specialist	1	4.5	4.5
6	Resettlement/Social Safeguards Specialist	1	4.5	4.5
Sub-Total = (A)		8		49.5
1	Assistant Quality Control Engineer/ Monitoring & Evaluation Officer	3	9	27
2	Quantity Surveyor	3	9	27
3	Site Inspector	10	11	110
4	Surveyor	3	9	27
5	Contract and Procurement Specialist	1	4.5	4.5
Sub-Total = (B)		20		175.5
Total [A+B] =		28		245

5. Duration of the Contract

The duration of the contracts shall be nine (09) months for Design Review, Contract Management and Resident Construction Supervision.

6. Facilities to be arranged by the Consultant

The Consultant has a mandatory obligation to arrange office space and residence and station the focal persons at Lahore and field offices in all tehsils. Office equipment/vehicles, such as vehicles, office furniture, communications equipment, photocopying equipment, fax machines, and computers and printers, including relevant software, such as Primavera, Microsoft Word, Excel, AutoCAD needs, shall also be the responsibility of the consultant. All documents, equipment, software purchased for project, facilities related to the works are, and shall remain the property

of the Client after completion of works for which Registration and licensing should be named to the client.

The consultant will take formal approval from the admin wing of the client before purchasing office equipment/vehicles, such as vehicles, office furniture, communications equipment, photocopying equipment, fax machines, and computers and printers.

7. Performance Monitoring & Reporting

The Consultant shall be required to:

- i) Establish a baseline reporting format in consultation with the Client for monitoring the project performance;
- ii) Establish systems for recording data and statistics for such monitoring;
- iii) Review and verify document which clearly and accurately describes the total verified work done and payment due for the Contractor, in order to process interim certificates for payment to the Contractor on the basis of measured / verified work items and certify the completion of the works or parts thereof;
- iv) Make presentations on digitized / multimedia systems and progress reports on computer-based techniques to be displayed in meetings & conferences; and
- v) Prepare the reports mentioned here-in-after and distribute the Client each in three copies along-with soft records.

In this regard, the consulting team is expected to submit the required reports to PIMU (PRMSC-HO) as per the requirement given in the table below.

TABLE 1: REPORTING REQUIREMENTS FROM CONSULTANTS

S#	Report	Report Content	Date of Submission
Payment Milestone Reporting			
Design Review and Contract Administration & Construction Supervision as Resident Engineer			
1.	Design Review	The Consultants will review and submit detailed Engineering Designs in respect of all the selected revenue villages, related to scope given in objectives and covering all the activities/tasks listed at Section 3.1: Paras (iv) of TORs	As per the requirement of the Client
2.	Bi-monthly Progress Report	The Consultants will prepare a comprehensive report summarizing all activities under the component at the end of each quarter of the respective phase, covering all the actions & deliverables prescribed in Section 3.2 of the Terms of Reference, and also at other special times when considered warranted by either party. Such reports shall summarize not only the activities of the Consultants but also the progress of the contract	15 days after the end of every months

S#	Report	Report Content	Date of Submission
		including all variations and change orders, the status and brief description of the Contractor's claims (if any), technical & contractual problems being encountered and other relevant information. Concise reports to be prepared that give more details of the project and key issues. These reports must present all the findings related to the monitoring requirements, including progress on delivering the outputs. The reports shall also summarize the results of relevant data collected. During the Contract Administration & Construction Supervision Phase, the report shall also provide: (i) a comparison of actual and forecasted expenditure(s) during the month and cumulative to date for each individual contract, and prepare a record of the status of payment(s) of the Contractors' monthly invoices, of all claims for cost or time extensions, and of actions required of PIMU (PRMSC-HO) to permit unconstrained work for implementation. The Consultant will also advise on the final estimated cost for each individual contract and draw attention to any major changes in the project budget (if needed) including details of rectification action(s) taken or if any recommendations to be given to PRMSC, (ii) Brief on all correspondence exchanged with the contractors, particularly relating to contractual clauses, finances, liabilities, rectification works, delay, staffing, inappropriate behavior, and time implications, (iii) Technical appreciation of any design or quality control problems for each individual contract including details of remedial action taken or recommended to PRMSC, (iv) Status of compliance with the Monitoring	

S#	Report	Report Content	Date of Submission
3.	Environment and Resettlement Report	The Consultant shall submit an exclusive and detailed Environment and Resettlement Report, on compliance or non-compliances, made by the contractors during the construction phase against the requirements/standards which were prescribed by the Consultant & PRMSC during the Engineering & Detailed Design Phase, as well as the requirements/guidelines which PRMSC has defined for the project such as Environmental & Social Impact Assessment, Environmental Management Plan, Resettlement Action Plan etc.	As per the requirement of the Client
4.	Final Report	A detailed project completion which will present a summary of all aspects of project implementation and comparison with the expectations of the loan vs. actual. The report will summarize and discuss the results of special aspects of the project including construction, contract management, social mobilization, social and environmental safeguards, together with conclusions, recommendations, shortcomings, and lessons learned for next phase of project. The contents of the report shall be agreed with the PIMU (PRMSC-HO) and World Bank prior to its preparation.	Within 1 month after project completion

Annex-I

Sr. No.	Tehsil	Cluster	Package	Villages	No.
1	Rojhan	South-III	ROJ-01	Umer Kot	1
2	Taunsa	South-III	TAU-01	Mithay Wali	2
				Kaluwala	
			TAU-02	Jhok Bandu	3
				Pehar	
				Banbhan	
			TAU-03	Dona	2
				Sonra	
			TAU-04	Tub	2
				Basti Buzdar	
3	Liaquatpur	South-III	LQR-01	Bohar	1
				Chak No 5/2R	6
				Chak No 17/2R	
				Chak No 25/2R	
				Chak No 26/3R	
				Chak No 29/3R	
				Chak No 30/3R	

Sr. No	Position Title	Qualification + Job Description
1	Team Lead	BSc Civil Engineering with 20 or above years' experience (Age Limit-55 years). Preference will be given to applicants who have relevant experience of site execution in Water Supply and Sanitation sector. Job Description: • In Continuation of TORs stated in consultant contract agreement, Resident Engineer will also ensure following tasks but not limited to; • Certification of Interim/ final payment certificates, variation orders, price adjustment issues, completion certificate, Extension of time cases etc. • Closely coordination between client PRMSC tehsil office and PRMSC Head office. • Ensuring the physical progress as per planned physical progress. • Submission of weekly progress report tehsil wise and package wise to PRMSC tehsil office and PRMSC Head office. • Resolution of all design and execution issues timely and issuance of drawings accordingly. • Arrange the visit of stakeholders on site. • Overall responsibility of all contract packages under his supervision, ensuring the completion of project within stipulated time and cost. • Supervision of civil works and contracts shall be carried out based on the World Bank standards and guidelines. The consultant on behalf of the Client will administer both the goods and the civil works' contracts, make engineering decisions, be responsible for quality and quantity assurance, provide general guidance and furnish timely responses to the suppliers and contractors and ensure that all clauses of the contract agreements between the suppliers/contractors and PIMU (PRMSC-HO) are implemented, • Assure submission(s) of contractual documents and advise PIMU (PRMSC-HO) on the adequacy of the Contractor's insurance policies, performance guarantees and advance payment guarantees, • Give notice to contractor to commence the works, • Provide advance payment advice to PIMU (PRMSC-HO) concerning schedule of handing over of project sites, and any anticipated delays due to various reasons, • Assess the competence of the contractors' inputs in material, labor selection, construction methods, and safety measures, • Monitor the progress of sub-schemes/projects against the contractual construction schedules/workplans. Warrant that the Contractor submits regular updated workplans that take into account the time passed and work completed. A realistic timetable for completing the works within the specified contract period must also be furnished periodically. Initiate action if the Contract is clearly going to time overrun,

		• Carry out any subsequent design changes, and expeditiously issue supplementary/revised drawings, site instructions, variation orders and day work orders to avoid delay to the works and to ensure that the works are executed in accordance with Contract/on time, • Ensure that the Contractors shall have all necessary data including the right- of-way limits, centerline, and grade etc., • Develop and implement a quality monitoring plan to ensure the works comply with the specifications in the contract documents regarding materials used, and technical requirements etc. by preparing QA/QC Manual and will be responsible for Quality Assurance i.e. project components are tested according to the specifications as per the Contract; also make a report for imported items for efficiency and quality including testing on manufacturing site test bed and check duty & import documents of each item being imported for the project, • Check the Contractor 's periodic statement of the estimated value of work- completed and certify that these statements clearly and accurately describe the value of work executed on the value of the quantities of the items in the Bill of Quantities, • Certify and endorse the completion of the activities/works or parts thereof in order to process final payments to the Contractors, • Assist in clarification of Contract Documents, explain and/or reconcile any ambiguities and or discrepancies that may occur in the Contract Documents, and assist (PRMSC-HO/TO) along with all relevant documentation needed for settling disputes/claims (if any) with the Contractors, and suggest recommendations to (PRMSC-HO) for resolving the Contractors' escalation claims, contract time extensions (if needed), variation orders, subletting of work, additional cost, rate and price fixing etc., • Advise (PRMSC-HO)/PRMSC-TOs on the need for effective and efficient liaison with the local authorities, police, landowners, utility owners, the public and others affected by the works in progress in order to minimize or avoid unnecessary delays or disputes, • Jointly inspect with PIMU (PRMSC-HO)/ PRMSC-TOs /Village Councils the completed civil works, and assist in formal taking over process, completion certificates and review and approve "as built" drawings and plans (as the case may be) and provide report(s) affirming that the contracts have been completed in a satisfactory manner and develop a checklist for re-works or incomplete works. In addition, review the final commissioning tests being conducted upon completion of each construction package, such as, network, pumping stations, approve acceptance of performance in accordance with the targets set in the tender documents/workplan, approve the content of the O&M manuals and advise the PIMU (PRMSC-HO), PRMSC-TOs and Village Councils on delivery of certificate of performance, • Inspect the completed work periodically during the defect liability period within the term covering the Consultant's Agreement, prepare lists of deficiencies/incomplete works (if any) in consultation with PIMU (PRMSC_HO), and carry out supervision of the rectification works, and issue the Defects Liability certificates after the rectification of notified defects by the Contractors, • Establish a comprehensive monitoring system that entails maintaining site records including site correspondence, inspection records, test data, site diaries, records of meetings, financial records, progress records etc,
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		• Support the PIMU (PRMSC-HO) to implement the safeguard related policies, prior to starting work and as work progresses, which may include the environment management plans, IEEs, resettlement plan, public consultation, verification of the resettlement compensation payment, and preparation of all safeguard monitoring reports (bi-weekly/monthly), • Make available record to the auditor appointed by AG office of Pakistan and draft replies and clarifications along all supporting documents against any observation raised by auditor, to facilitate the Client, • Assist PIMU (PRMSC-HO)/PRMSC-TOs in preparing monthly and quarterly progress and monitoring reports for submission to various authorities, including the World Bank, • Coordinate with contractors and local authorities on obtaining clearances during construction and commissioning of works, • Provide any other technical services requested by PIMU (PRMSC-HO)/PRMSC-TOs and other Consultants under the project, as mutually agreed, • Shall be responsible to make visit arrangements by any Government/Donor delegation or authority/management and shall prepare presentation arrangement when required.
2	Resident Engineer	BSc Civil Engineering with 15 or above years' experience Age Limit: 45 Years Preference will be given to applicants who have relevant experience of site execution in Water Supply and Sanitation sector. Job Description: In Continuation of TORs stated in consultant contract agreement, Resident Engineer will also ensure following tasks but not limited to; • Checking and verification of check requests, submittals, test results, material etc. • Checking, verification and recommendation of the interim payment certificates to PIMU/ PRMSC for payment to the Contractors based on inspected Work Items, having regard to any contractual provisions for advance payment, variation of price, escalation, Comparative statement according to the acceptance letter and exchange rate fluctuation etc. • Ensuring the physical progress as per planned timelines. • Daily coordination with PRMSC- tehsil team regarding the site related matter and physical progress. • Site decisions related with drawing and design. • Submission of weekly progress report and timelines/targets of next week to PRMSC tehsil team. • Shall be responsible to make visit arrangements by any Government/Donor delegation or authority/management and shall prepare presentation arrangement when required. • Coordination with all project stakeholders including district administration. • Coordination with consultant head office team and contractor for early resolution of issue. • Assist in the resolution of VLD issues. • Ensuring the quality and quantity of work and responsible for site work's quality and quantity. • Ensuring the uploading of physical progress, IPCs, Variation order etc on MIS and site activities on especially inspector app. • Available during the execution of site activities and resolve the site related issues on time. • Without relieving the Contractors of their obligations under the Contract, check and approve the contractors' Working Drawings, Method Reports and Temporary Works proposals,

		• Liaise with PIMU/PRMSC-HO, PRMSC-TO, District office, Village Councils and other concerned parties/consultants, as required, to ensure that the sub-scheme/project sites are made available to the Contractors on time and that any issues related to land acquisition and utilities relocations are resolved in minimum time, • Check that the lines, levels and layouts of the construction work follows with those specified in the contract document. • Monitor and appraise progress of the works, and maintain a day-by-day project log which shall record all activities/progress pertaining to the administration of the contract, liaise with MIS to update real time data, requests taken and orders given to the Contractors, and any other information which may be at a later date be of assistance in resolving queries which may arise concerning execution of the works, • Give notice (s) to the Contractors of any defects and deficiencies, and issue instructions/directions for the removal and replacement of the improper works, as per the contract. If required, order suspension of the work(s) under intimation to the PIMU and/or recommend to PIMU/ PRMSC and sought other recourse available under the Contract, • Jointly inspect with PIMU (PRMSC-HO)/ PRMSC-TOs /Village Councils the completed civil works, and assist in formal taking over process, completion certificates and review and approve "as built" drawings and plans (as the case may be) and provide report(s) affirming that the contracts have been completed in a satisfactory manner and develop a checklist for re-works or incomplete works. In addition, review the final commissioning tests being conducted upon completion of each construction package, such as, network, pumping stations, approve acceptance of performance in accordance with the targets set in the tender documents/workplan, approve the content of the O&M manuals and advise the PIMU (PRMSC-HO), PRMSC-TOs and Village Councils on delivery of certificate of performance, • Make available record to the auditor appointed by AG office of Pakistan and draft replies and clarifications along all supporting documents against any observation raised by auditor, to facilitate the Client, • Provide any other technical services requested by PIMU (PRMSC-HO)/PRMSC-TOs and other Consultants under the project, as mutually agreed, and
3	Quality Control Material Engineer/ Engineer	DAE Civil with 10 years' experience as material engineer or relevant experience / B-Tech with 8 years' experience as material engineer or relevant experience. (Age Limit- 35 years max). Job Description: In Continuation of TORs stated in consultant contract agreement, Quality control/Material engineer will also ensure following tasks but not limited to; • Ensure the material i-e sand, crush, cement, steel, sewer pipe and water distribution pipe, rising main, Blind pipe/strainer etc as per specifications of contract agreement. • Ensure the testing of all material i-e sand, crush, cement, steel, sewer pipe and water distribution pipe, Blind pipe/strainer etc from authentic lab. • Ensure the compaction test (Field Density Test (FDT), HDPE pipe leakage test (Hydrostatic pressure testing) etc and sewer tests after laying of water supply and sewerage pipe

		- Responsible to check the quality of material, used on site. - Upload the material picture, test results on MIS.
4	Surveyor	DAE Civil with 8 years' experience. The candidate must have similar experience related to execution of water supply and sanitation. (Age Limit: 35 Years) Job Description: In Continuation of TORs stated in consultant contract agreement, Quality control/Material engineer will also ensure following tasks but not limited to; - Ensuring the maintaining of the levels of sewer pipe, sewer chambers, Manholes & Sewerage treatment plant and civil infrastructure activities. - Ensure the exact coordinates for the construction of all civil infrastructure activities as per design.
4	Site Inspector	BSc Civil Engineering with 4-5 years' experience or DAE Civil/B-Tech with 8 years' experience of site supervision The candidate having similar experience related to execution of water supply and sanitation will be preferred. (Age Limit-35) Job Description: In Continuation of TORs stated in consultant contract agreement, Quality control/Material engineer will also ensure following tasks but not limited to; - Supervision of all ongoing activities on site ensuring the quality and quantity of work as per the specification. - Uploading of all site activities on MIS (Inspector app). - Ensure the compaction of all sites (FDT test) after laying of Sewer and HDPE pipe and other civil infrastructure activities. - Ensure the hydrostatic pressure testing of HDPE pipe and sewer pipe tests. - Ensuring the proper laying of sewer and construction of manholes as per invert levels mentioned in drawing. - Ensure the proper restoration of streets after the laying of water supply and sewerage pipe. - Coordination with PRMSC-tehsil team.

