| **Contractor’s Logo** |
| --- |

**Quality Management Plan**

**RFQ reference No.: RFQ/2023/47500**

**Lot number: xxxxxxxx**

**Lot name / title: xxxxxxxx**

**Date: xx-xx-xxxx**

**Bidder to complete Quality Management Plan per lot and provide the information above**

[**INTRODUCTION**](#_heading=h.gjdgxs) **5**

[**1. ORGANIZATION AND OPERATIONS**](#_heading=h.30j0zll) **5**

[1.1 Scope](#_heading=h.1fob9te) 5

[1.2. Key Personnel Design Responsibilities and Authorities](#_heading=h.3znysh7) 5

[1.2.1 Project Manager:](#_heading=h.tyjcwt) 6

[1.2.3 Quality Control Engineer:](#_heading=h.3dy6vkm) 6

[1.2.4 Technical Delivery Team Members:](#_heading=h.1t3h5sf) 6

[1.2.5 HSSE Officer:](#_heading=h.4d34og8) 6

[1.2.6 Community liaison officer:](#_heading=h.2s8eyo1) 7

[**2. Operations**](#_heading=h.17dp8vu) **8**

[**3. Quality Management System**](#_heading=h.3rdcrjn) **8**

[**4. Quality Management Approach**](#_heading=h.26in1rg) **8**

[4.1 Scope](#_heading=h.lnxbz9) 8

[**5. Quality Management Procedure**](#_heading=h.35nkun2) **9**

[5.1 Quality planning:](#_heading=h.1ksv4uv) 9

[5.1.1 Project Outputs:](#_heading=h.44sinio) 9

[5.1.2 Quality requirements/acceptance criteria:](#_heading=h.2jxsxqh) 9

[5.1.3 Quality tolerances:](#_heading=h.23ckvvd) 9

[5.1.4 Quality register:](#_heading=h.ihv636) 9

[5.2 Quality Assurance:](#_heading=h.32hioqz) 10

[**6. Inspection:**](#_heading=h.1hmsyys) **10**

[6.1 Scope](#_heading=h.41mghml) 10

[6.2 Phases of inspection:](#_heading=h.2grqrue) 10

[6.2.1 Preparatory Meetings](#_heading=h.3fwokq0) 10

[6.2.2 Initial Inspections](#_heading=h.1v1yuxt) 11

[6.2.3 Follow-Up Inspections](#_heading=h.2u6wntf) 11

[**7. List of Definable Feature of Work (DFOW):**](#_heading=h.19c6y18) **11**

[**8. PERMIT TO WORK/PROCEED (PTW):**](#_heading=h.3tbugp1) **12**

[**9. Testing and Testing Laboratory**](#_heading=h.28h4qwu) **12**

[9.1 Purpose](#_heading=h.37m2jsg) 12

[9.4 Failing Tests](#_heading=h.1mrcu09) 12

[9.5 Procedures](#_heading=h.46r0co2) 12

[**10. REPORTS AND RECORDS**](#_heading=h.2lwamvv) **13**

[10.1 Scope](#_heading=h.111kx3o) 13

[10.2 Record](#_heading=h.3l18frh) 13

[10.3 Reporting](#_heading=h.206ipza) 13

[10.4 Reporting And Distribution Of Reports](#_heading=h.4k668n3) 14

[10.5 Storage and Retention of Record](#_heading=h.2zbgiuw) 14

[**11. SUBMITTALS**](#_heading=h.1egqt2p) **14**

[11.1 Guidelines for Preparing and Reviewing Submittals](#_heading=h.3ygebqi) 15

[11.2 Filling of Submittals](#_heading=h.2dlolyb) 16

[11.3 Submittal Register](#_heading=h.sqyw64) 16

[11.4 List of Key Submittals](#_heading=h.3cqmetx) 16

[11.5 Review of Submittals](#_heading=h.4bvk7pj) 17

[**12. RECEIVING, HANDLING AND STORAGE**](#_heading=h.2r0uhxc) **17**

[12.1 Receiving Inspection](#_heading=h.1664s55) 17

[12.2 Handling, Storage and Shipping](#_heading=h.3q5sasy) 17

[**13. Material Received Prior to Approval**](#_heading=h.25b2l0r) **18**

[**14. Storage of Construction Material on site**](#_heading=h.1jlao46) **18**

[15. Monthly Coordination/progress Meeting](#_heading=h.xvir7l) 18

[**16. Construction Materials Source Inspection:**](#_heading=h.1x0gk37) **19**

[**17. NON-CONFORMING ITEMS**](#_heading=h.haapch) **19**

[17.1 Scope](#_heading=h.319y80a) 19

[17.2 Non-Conforming Items](#_heading=h.upglbi) 19

[**18. Punch-out/checklists**](#_heading=h.4du1wux) **20**

[18.1 Internal Punch-Out Inspection](#_heading=h.2szc72q) 20

[18.2 Pre-Final Inspection](#_heading=h.184mhaj) 20

[18.3 Final Inspection](#_heading=h.3s49zyc) 20

Bidder needs to add the list of abbreviations:

Example

QC Quality Control

CME Construction Management Engineer

# **INTRODUCTION**

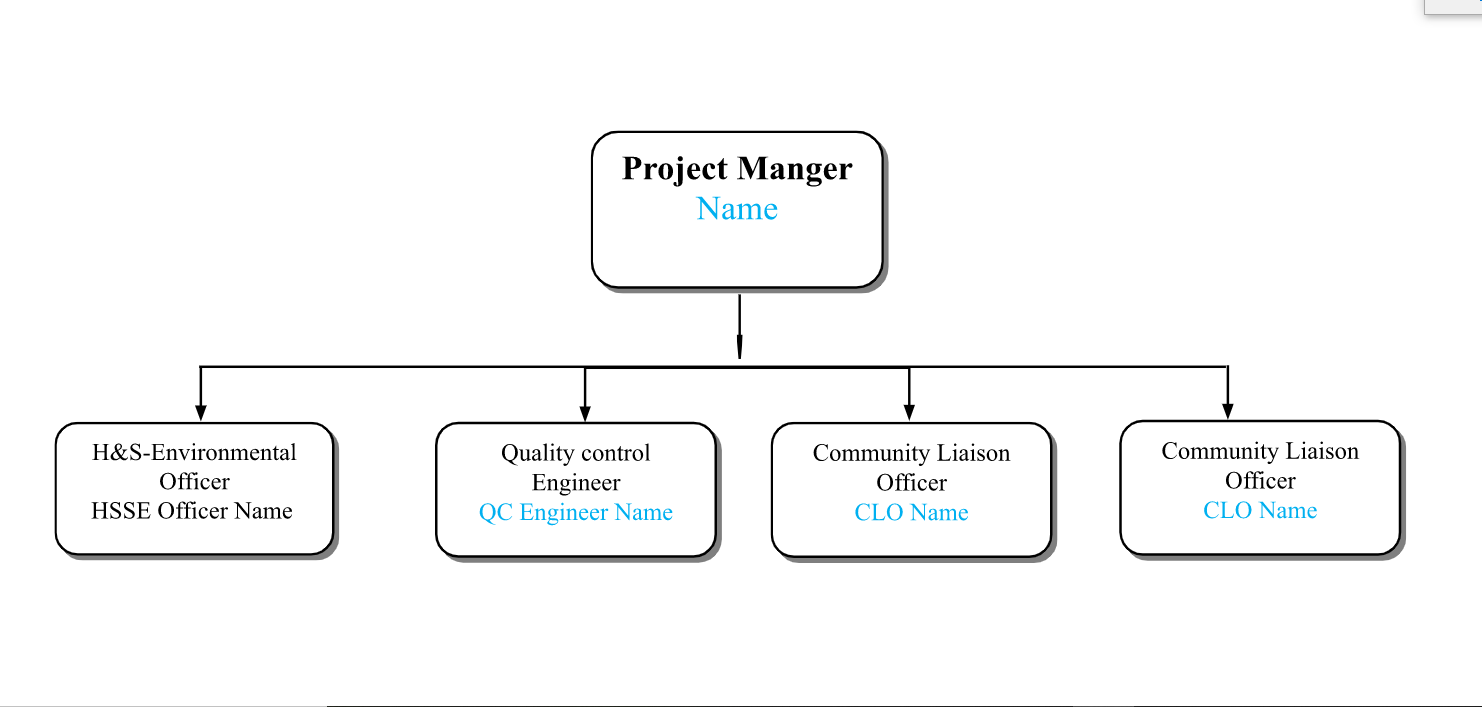
The Quality Plan forms a part of the Implementation Plan. The purpose of the Quality Plan is to define the quality techniques and standards for application and identify the applicable roles and responsibilities for achieving the required level of quality during the project lifecycle.

# **1. ORGANIZATION AND OPERATIONS**

## 1.1 Scope

This section establishes the organizational structure and responsibilities of personnel involved in the management, direction and execution of the Quality Control Program to ensure the construction works are based on the internationally standardized quality.

**Insert here the organization chart: this is an example but the bidder needs to create as per the project and their office requirements.**

****

1. Director
2. Project Manager
3. Quality Manager
4. H&S Engineer
5. Community mobilizer
6. Other supportive staff staff

## 1.2. Key Personnel Design Responsibilities and Authorities

Each of the key personnel presented has responsibilities and authority as it relates to their position, to ensure quality and meet contract requirements for project scope, cost, schedule, and communication. Key personnel design responsibilities and authorities are provided in the below table.

### 

### 1.2.1 Project Manager:

The Project Manager (PM), supported by key project management and technical delivery team members, will have the ultimate responsibility with respect to the overall construction activities and achievement of project objectives.

The PM assumes the Contractor’s Representative role. PM is typically the only delegated authority by the director to issue written instructions, notices, determinations, approvals, certification, etc. to the suppliers and site staff in relation to the execution of the Works.

However, the PM can, and is reasonably expected to, propose value engineering changes to the contract requirements for the Employer’s approval if the proposed change improves quality, provides cost savings and expedite progress.

The responsibilities and authorities of the PM are listed in the below table #1but not limited to.

### 1.2.3 Quality Control Engineer:

The Quality Control Engineer (QCE) provides overall coordination and guidance to the construction supervision team to effectively carry out quality Control activities. The QCE also provides necessary expert advice to the PM for an informed decision making related to the overall QC activities. The QCE should review and monitor the QA/QC activities to ensure:

Key responsibilities include but is not limited to:

* Necessary quality process is adhered to
* Inspections and testing are performed as per the approved inspection and testing plan and contract requirements
* Specified inspection and testing techniques and standards are used
* Specified requirements in the contract for quality control and acceptance of material and workmanship are enforced
* Joint inspection with UNOPS team for the construction materials source approval
* Proceed permit to work for any definable future of Work us UNOPS standard form.
* Preparing testing plan
* Submittal review and process official approval with UNOPS engineer.
* Response to non-conformance report and take corrective action.
* Involved in pre and final punch list.

The construction supervisors, engineers and technicians who will be carrying out on site day-to-day QC activities will report and be accountable to the QCE. The team makeup in terms of size, required cross-functional expertise and experience shall be updated by the QCE to suit the type, complexity and level of effort required to deliver the construction quality assurance/control activities.

### 1.2.4 Technical Delivery Team Members:

The technical delivery team shall perform all activities timely according to the design, specification and drawing, the workpack progress will be closely monitored, controlled, reported and handover to the PM after completion.

### 1.2.5 HSSE Officer:

The "Insert the name of bidder"Insert the name of bidder) will make sure that the ” UNOPS and World Bank HSSE requirements are adhered and the” health and safety of the workforce, public and all persons directly or indirectly associated with the construction works are not endangered during the construction of the infrastructure asset and/or system. In addition, there is a need to mitigate or reduce risks and adverse impacts on the social and natural environment as a result of infrastructure development. The HSSE Officer role on infrastructure construction supervision is a key resource to ensure HSSE considerations and effective HSSE management are taken into account. This role is also key in the establishment and monitoring of a grievance mechanism. This will allow communities to raise any concerns or complaints about the projects’ environmental and social performance. Social and Environmental sustainability is a critical priority and is a precondition for successful infrastructure development, operations and maintenance.

Key responsibilities include but is not limited to:

* “Applying all the HSSE risk mitigation measures identified in the ESMP”
* Provide technical advice and oversight on HSSE aspects
* Prepare Health and Safety, and Social and Environmental Management Plans
* Review and provide feedback on HSSE performance report
* Periodically monitor and audit HSSE management activities
* Establish and monitor community grievance mechanism
* Provide training and mentoring of the construction workforce and stakeholders
* including communities
* ” ” and report construction site incident reports along with remedial and/or preventive actions

### 1.2.6 Community liaison officer:

**It is an example that a contractor needs to prepare the below table based on the project requirements.**

Tabel #1

| **ResponsibilitiesResponsibilities** | **Authorities** |
| --- | --- |
| **Project Manager (PM)**  **(write the name of PM)** | |
| * Ensure successful execution of the project and adequate time and resources are available for the proper operation of the quality function. * Ensure elements of plans and specifications are satisfied within planned scope, cost, and schedule. * Ensure compliance with QC requirements, applicable regulations, and codes. * Perform or delegate submittal reviews. * Conduit for all design team communications to the UNOPS   ***Reports to the Program Manager*** | * Supervise and evaluates project staff. * Approve deliverables, design team selection. * Has stop work authority. * Discuss and prepare contract modifications. * Refer to CQP for other construction specific responsibilities. |
| **Quality Control Engineer**  **(write the Name of QCE)** | |
| * Preparing the QC plan according to the contract requirement and expectation. * Ensure technically qualified and trained design QC personnel are assigned to this Project. * Provide assistance to the PM. * Perform Technical consultant evaluations if necessary. * Ensure all activities are implemented according to the contract quality program. * Conduct on-site QC training for the staff if required. * Verify project submittals are reviewed and approved. * Implement corrective actions for QC deficiencies. * Fill and process the UNOPS construction supervision forms for any approval. * Close communication with UNOPS Engineers for maintaining the quality requirements. | * Has stop work authority for design quality issues. * Reject the submittal before sending it to the UNOPS approval if it does not meet the quality requirements. * Reject the construction materials if they do not meet contract requirements. * Replace the lab technician or Lab if they do not follow the contract and UNOPS quality standards. |
|  |  |
|  |  |

# **2. Operations**

The Quality Control Engineer will be responsible for verifying that material and equipment meet the specifications. Quality Control personnel will inspect material when it arrives; work at the construction site, including the supplier work and prepare Reports of ongoing construction activities.

The Quality Control Engineer will include a sufficient number of inspectors and may be augmented by engineers and/or technicians. The number of personnel assigned to the department will be jointly determined by the Project Manager and the Quality Control Engineer. Inspection of materials and workmanship will be made by PM, QCE and/or technicians. Criteria for workmanship will be established through Preparatory Meetings, Initial Inspections and Follow-Up Inspections and/or as outlined in the specifications, referenced codes and/or standards and/or generally accepted construction practice.

The quality engineer will inspect the materials source jointly with UNOPS Construction Management Engineer (CME) or with QA/QC and the approved source material has to be delivered to the approved testing laboratory in the first two weeks of when the NTP is issued.

# **3. Quality Management System**

The objective of the Quality Management System (QMS) is to continually improve "Insert the name of bidder"performance, to meet the expectations and needs of partners and beneficiaries and to address risks and opportunities through the consistent application of UNOPS Quality management policies, standards and process requirements.

Through the QMS the "Insert the name of bidder" honestly intends to achieve UNOPS quality objectives and their partners expectation.

# **4. Quality Management Approach**

## 4.1 Scope

The purpose of quality management is to ensure that quality is integrated and recognized throughout the project lifespan and that projects deliver outputs that are fit for purpose and satisfy the quality requirements of UNOPS, partners and beneficiaries.

The "Insert the name of bidder" will establish and apply a well quality management approach( QMA) to meet the UNOPS expectations and acceptance criteria throughout the project lifespan.

# **5. Quality Management Procedure**

The Quality Management System includes a procedure for the continual improvement of the way that "Insert the name of bidder" manages the delivery of projects. The quality management procedure is composed of quality planning, quality assurance and quality control activities, which are identified based on the defined quality requirements at the project, work package and/or deliverable levels.

## **5.1 Quality planning:**

The "Insert the name of bidder"quality planning is to “determine the quality requirements and standards that will be applicable to the project, the deliverables of the project and how the requirements and standards will be met based on the project objectives.

* Project output(s) description;
* Quality requirements/acceptance criteria;
* Quality tolerances; and
* Quality register

### 5.1.1 Project Outputs:

The bidder is to list and describe the project outputs according to the contract. The output is basically the construction works (road, bridge, culverts,...etc)

### **5.1.2 Quality requirements/acceptance criteria**:

**Quality Requirement Categories**

The "Insert the name of bidder" shall meet the quality requirements stated in the contract and specification.

For infrastructure works implementation, quality requirements broadly include input requirements (material, workmanship, and equipment requirements), process requirements, and output requirements.

1. **Process Requirements:** Strict adherence to specifications, standards and regulations in terms of material sampling, testing, mixing, compaction, curing, bar bending etc.
2. **Material Requirements:**

Sampling, testing, inspection and monitoring of construction materials being used for incorporation in the permanent and temporary works. This includes cement, gravel, reinforcement bars, bitumen, scaffoldings, etc.

1. **Workmanship Requirements:**

Inspection, testing and measuring of workmanship such as surface finishes.

1. **Equipment Requirements:**

The type of equipment and tools being used should be checked against the specification and vetted.

1. **Output Requirements:**

Evaluate whether the project outputs are fit for purpose.

### 5.1.3 Quality tolerances:

All activities, product, outputs and deliverables must not exceed the acceptance tolerance stated in the specification or in the product description.

### 5.1.4 Quality register:

The "Insert the name of bidder" will regularly register any defect throughout the project Implementation cycle. The template is attached.

## 5.2 Quality Assurance:

The "Insert the name of bidder"will make strong internally quality assurance management for their ongoing projects that provides confidence that project objectives will meet or exceed the expectations of project and stakeholders.

Quality assurance is focused on providing confidence that quality requirements will be fulfilled. Each activity will be individually reviewed and checked through the three phase system, sequence of the activities is mandatory to check.

This "Insert the name of bidder" will review monthly and quarterly project progress, time and cost considering the issue and risk associate.

**5.3 Quality Control:** The "Insert the name of bidder" ensures that policies, standards and procedures are applied, that quality objectives and quality requirements are met and identifies and addresses unsatisfactory performance and corrective actions.

The purpose of performing quality control is to “determine whether the established project objectives, quality requirements and standards are being met and to identify the causes of, and ways to eliminate unsatisfactory performance.

The "Insert the name of bidder" will establish an effective quality control to implement, monitor, record method and responsibility to satisfy the UNOPS and stakeholder for well completion In the context of UNOPS projects.

# **6. Inspection:**

## 6.1 Scope

This section establishes the requirements for the inspection and testing of construction installations and activities to ensure compliance with the contractual requirements.

The Quality Control Engineer will be responsible for coordinating construction installation activities and its staff meet the requirements of the contractual requirements; i.e., specifications, etc. Installations will be inspected by a quality control representative in accordance with quality control procedures. Installations which do not conform to the requirements will be documented on a Non-Conformance Report (refer to UNOPS construction supervision Forms) and will be issued by a quality control representative for such conditions.

## 6.2 Phases of inspection:

## 

### 6.2.1 Preparatory Meetings

Preparatory Meetings will be held prior to the beginning of any major definable feature of work. A meeting will be held for each crew performing such feature or when members of the crew change. The Preparatory Meeting will be conducted by the Quality Control Engineer and/or designee after a complete review of all applicable plans, specifications and related submittals has been made. A Preparatory Meeting Agenda will be completed for each definable feature of work and distributed at the meetings.

At the Preparatory Meeting, the Superintendent and Foreman (involved in this phase of construction) will coordinate with Quality Assurance, Quality Control and Safety personnel and will introduce the plan for accomplishing the work. The UNOPS will be notified in writing at least 48 hours in advance of the Preparatory Meeting. The following items will be discussed at such meetings.

1. Review of the applicable specification.
2. Review of applicable plans and shop drawings.
3. Review of related submittals and a check that all related submittals, shop drawings and materials have been tested, submitted and approved.
4. Review of the detailed sequence of the execution of the work.
5. Discuss testing required and frequency.
6. Review provisions to provide controlled inspection and testing.
7. Examination of the work area to ensure that all required preliminary work has been completed and is in compliance with the contract.
8. Examination of the related material, review of the Receiving Inspection Reports and verification that they are in compliance with the contract and are properly stored.
9. Review of the Activity Hazard Analysis Report to ensure that all safety precautions are met and the required safety equipment has been purchased and is available.
10. Review and document the workmanship expected for the definable feature of work.
11. Meeting minutes will be filed and distributed within 48 hours of the conclusion of the meeting.

### **6.2.2 Initial Inspections**

Initial Inspections will be performed at the beginning of any definable feature of work and must be repeated at any time new workmen or new crews are assigned to the work or if the required standard of work is not being met. The UNOPS will be notified in writing at least 48 hours in advance.

The same personnel who attended the Preparatory Meeting will also attend the Initial Inspection. These should include: the Superintendent and Foreman, Safety Personnel and the QA/QC Staff. The following will be accomplished during such meetings.

* 1. Review the minutes of the Preparatory Meeting and verify that the work is in compliance with the design documents; i.e., submittals, specifications, plans and/or shop drawings.

1. Resolve all differences.
2. Verify adequacy of inspection and testing.
3. Establish a level of workmanship and verify that it meets the requirements.
4. Check Safety and review the Activity Hazard Analysis Report.
5. Provide documentation of the previous inspection of the work area.
6. Re-examine the work area for compliance.
7. Meeting minutes will be filed and distributed within 48 hours of the conclusion of the meeting.

### 

### **6.2.3 Follow-Up Inspections**

Follow-Up Inspections will be performed to ensure that the control established during Preparatory Meeting and Initial Inspection continues to provide a product that conforms to the contractual requirements.

1. Construction activities will be inspected by Quality Control in accordance with Quality Control Procedures. Each DFOW has to proceed through the UNOPS construction supervision forms where required, Installation and testing activities which do not comply with the requirements will be documented on a Non-Conformance Report (NCR).

Modifications, repairs and/or replacement of materials and/or parts performed subsequent to Final Inspection will require re-inspection and/or retest to verify acceptability.

Inspection and testing documents will be filed and maintained, Reports and Records and will be available for review by the UNOPS.

# **7. List of Definable Feature of Work (DFOW):**

For example (bidder must prepared based on the BoQ)

1. Excavation of foundation
2. Backfill of …
3. Subgrade preparation
4. Base cours parepation
5. Plum concrete
6. Interlock installation
7. Any other …

# **8. PERMIT TO WORK/PROCEED (PTW):**

When prep and initial meetings are conducted before performing any DFOW the "Insert the name of bidder" needs to fill the **PERMIT TO WORK/PROCEED** form to receive official approval by UNOPS engineers.

# **9. Testing and Testing Laboratory**

## 

## **9.1 Purpose**

To ensure that tests are adequately planned and that the necessary testing procedures are available to conduct the test in a satisfactory manner. This procedure establishes the methods to be used when conducting tests specified in the specifications, Test reports will be filed and logged in the contractor system and copy has to be submitted to the UNOPS engineer review and approval.

A list of tests required, to verify that control measures are adequate, which is delineated in the specifications. The list will include the test name, specification paragraph, feature of work to be tested, the test frequency and the organization that will perform the test. A Quality Control Representative (QCR) will notify in writing the UNOPS of the proposed test 48 hours in advance. The QCR will witness the test with the appropriate organization and/or individual qualified to perform the designated test(s).

**9.2 TESTING LABORATORY:**

"Insert the name of bidder" will submit at least three valid lab profiles and be registered with the Government for the inspection and approval of UNOPS engineers, the lab must be capable of performing all required tests stated in the specification. The lab must be assigned a qualified and experienced technician for the performing site and lab tests.

**9.3 inspection and testing plan:**

The "Insert the name of bidder" will prepare in the UNOPS standard inspection and testing plan form and submitted along the QC plan to UNOPS review and approval, the plan will cover the test requirements, reference, test method and frequency …etc, A Quality Control Engineer (QCE) will notify in writing the UNOPS engineer for the proposed test 48 hours in advance.

## 9.4 Failing Tests

Failing tests will be cleared by one of the following methods.

1. **Retest:** retest if there is any doubt that the first test was not adequate.
2. **Rework:** re-inspect and retest.
3. **Failed Material:** remove, replace, re-inspect and retest.

## 9.5 Procedures

1. The Quality Control Engineer and/or a staff member will review the testing requirements to e that the planned test is in accordance with the design documents; i.e., plans, specifications, shop drawings and/or other documents.
2. Instruments used for testing will be calibrated in accordance with established calibration procedures. Specialists experienced in such work will perform the calibration.
3. Technicians performing tests will provide copies of calibration certificates and their field notes and reports to the Quality Control Engineer .
4. Quality Control will witness all required tests delineated in the design documents (plans, specifications, shop drawings, etc.).
5. The UNOPS will be notified of all scheduled tests.
6. Test reports, when completed, will be submitted to the UNOPS.

"Insert the name of bidder" will at its own expense carry out at the place of manufacture and/or on the Site all such tests and/or inspections of the Plant and Equipment and any part of the Facilities as are specified in the Contract.

"Insert the name of bidder" will provide the UNOPS Lead Construction Management (LCME) with a certified report of the results of any such test and/or inspection. If the Employer or Project Manager (or their designated representatives) fails to attend the test and/or inspection, or if it is agreed between the parties that such persons will not do so, then "Insert the name of bidder" may proceed with the test and/or inspection in the absence of such persons, and may provide the Project Manager with a certified report of the results thereof.

If any Plant and Equipment or any part of the Facilities fails to pass any test and/or inspection, "Insert the name of bidder" will either rectify or replace such Plant and Equipment or part of the Facilities and will repeat the test and/or inspection upon giving a notice under UNOPS procedures.

"Insert the name of bidder" will afford the Employer and the Project Manager, at the Employer’s expense, access at any reasonable time to any place where the Plant and Equipment are being manufactured or the Facilities are being installed, in order to inspect the progress and the manner of manufacture or installation, provided that the Project Manager will give "Insert the name of bidder" a reasonable prior notice.

No part of the Facilities or foundations will be covered up on the Site without "Insert the name of bidder" carrying out any test and/or inspection required under the Contract. "Insert the name of bidder" will give a reasonable notice to the Project Manager whenever any such parts of the Facilities or foundations are ready or about to be ready for test and/or inspection; such test and/or inspection and notice thereof will be subject to the requirements of the Contract.

# **10. REPORTS AND RECORDS**

## **1**0**.1 Scope**

This section establishes a system for the control of documentation and records which provide objective evidence of the quality of items and activities performed in accordance with the programmatic requirements. The Quality Control Engineer is responsible for the control, review, verification and maintenance of the documentation delineated in the specifications.

## 10.2 Record

The "Insert the name of bidder" will maintain, store, update and archival all project records such as QC plan, work plan, meetings, progress report, test results, submittal reports and any other approvals based on the UNOPS quality management.

Documents are captured and maintained in both physical and electronic formats

* Progress reports
* HSSE reports
* Incident reports
* Site daily diaries or log books, site photographs and/or videos, visitors books,

minutes of meetings

* Bonds, insurance policies and securities
* Letters, emails, telephone records, Skype, video conferences, presentations,

speeches, fact-sheets, newsletters

* Instructions, notices
* Variation orders
* Submittals
* Inspection, measuring and testing records
* Products or manufacturer certificates
* NCRs
* Shop drawings, calculations, design changes
* Work programmes, interim payment certificates
* Commissioning and handover documents
* As built or constructed information such as drawings, surveys, data sheets etc.
* O&M manuals
* Labour, materials, plant and equipment record lists
* Weather records
* Contemporary records

## 10.3 Reporting

The "Insert the name of bidder" gives priority to prepare timely and accurate reporting to UNOPS lead/PM as specified in the contract. The purpose of reporting requirements is to monitor and control project progress, as well as to assure partners and other key stakeholders that the project is progressing as planned to meet the acceptance criteria/quality requirements as agreed.

The Quality Control Report will include the following.

1. Insert the name of bidder and project team area of responsibility.
2. Working, idle and down time hours for equipment.
3. Work accomplished each day indicating the location, activity and by whom.
4. Laboratory test reports, including the test results (passing or failing), location of test and specification reference.
5. Deficiencies and corrective actions.
6. Material received on site.
7. Off Site surveillance, including action taken.
8. Safety violations and corrective action implemented.
9. UNOPS instructions received and/or conflicts encountered in the plans and/or specifications.
10. Variation order, if any.
11. Laborers On Site and Labor Hours.

During the Closure Stage of the project, following the handover of all project outputs, the UNOPS lead Engineer should review the acceptance criteria/quality requirements, the quality register and lessons learned for incorporation in the Final Report. This report is submitted to the Lead Engineer for approval.

## 10.4 Reporting And Distribution Of Reports

After reviewing reports, including all submitted by the PM/QC engineer, the Quality Control Engineer or his representative will submit the documentation to the UNOPS. All inspections and testing will be summarized and recorded in a "Insert the name of bidder" filing and record system.

A copy of the CQCR will be sent to the UNOPS and the Project Manager. Original reports will be retained by Quality Control. Field notes, inspection forms and test reports will be filed and available for review by the UNOPS. The "Insert the name of bidder" Quality Control Report will include the following.

1. "Insert the name of bidder" and project team area of responsibility.
2. Working, idle and down time hours for equipment.
3. Work accomplished each day indicating the location, activity and by whom.
4. Laboratory test reports, including the test results (passing or failing), location of test and specification reference.
5. Deficiencies and corrective actions.
6. Material received on site.
7. Off Site surveillance, including action taken.
8. Safety violations and corrective action implemented.
9. UNOPS instructions received and/or conflicts encountered in the plans and/or specifications.
10. Laborers On Site and Labor Hours

## 10.5 Storage and Retention of Record

Records will be stored in areas which will protect them from damage, deterioration and/or loss at the site Quality Control Field Office during the construction period. Records will be accessible to the UNOPS engineers.

Records will be stored for a period of time as determined by the contractual documents. Records, designated for storage, will not be destroyed or otherwise disposed of within that period of time. Control and final disposition of supplier records, both onsite and off-site, will be in accordance with the contractual documents.

# **11. SUBMITTALS**

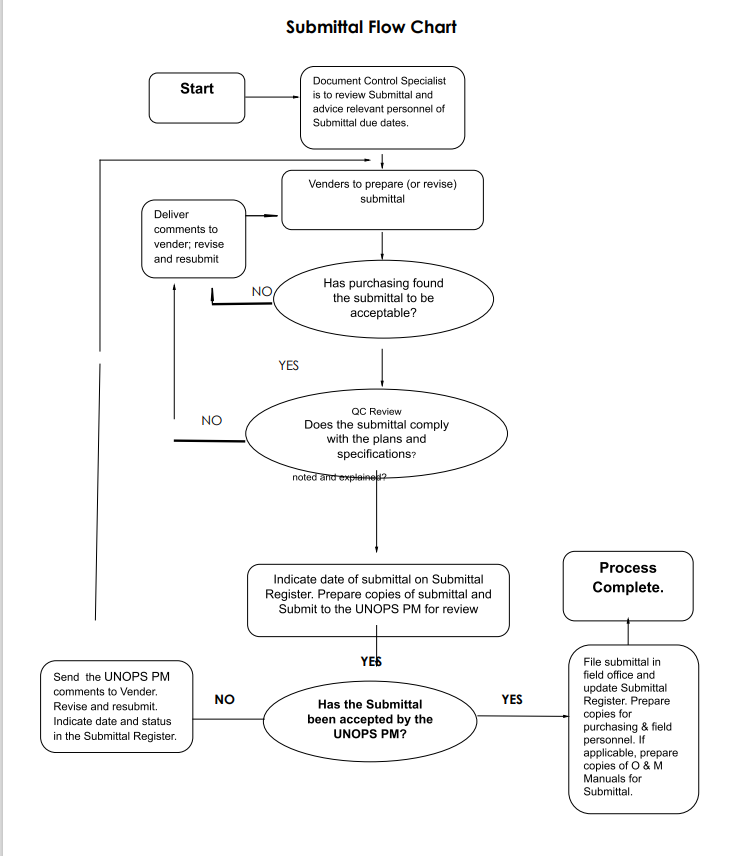
All submittals will be reviewed by the Quality Control Engineer. Copies of the manufacturer’s data: material, equipment, fixtures, plans etc., including catalog cut-sheets showing dimensions, performance characteristics, capacities, schedules, operation and any other relevant information will be submitted in the English language.

The **UNOPS standard** Submittal Transmittal Form will be furnished by the "Insert the name of bidder" which will be used for submittals. All submittal submitted and approved using standard UNOPS Submittal review and approval form.

## **1**1**.1 Guidelines for Preparing and Reviewing Submittals**

1. The Quality Control engineer must be familiar with the submittal procedures, Submittal for Projects.
2. The Quality Control engineer must review all of the information and supporting documentations attached to the submittal.
3. The Quality Control engineer must ensure that all of the pages associated with the enclosure are attached to the submittal
4. Important: The Quality Control engineer must thoroughly review the applicable design documents; i.e., the Specification, codes and standards, “Approved drawings,” etc
5. The Quality Control engineer must ensure the attachments are “Legible”.
6. The Quality Control engineer must ensure the Attachments are in “English”.
7. He must direct questions and concerns to either the Quality Control Engineer or the Submittal Coordinator.
8. In a timely manner, the Quality Control engineer will submit a detailed written report pertaining to the review of the submittal and return it, with the submittal to the Submittal Coordinator.
9. The Quality Control engineer must ensure the sample received and/or the material installed is the item approved on the submittal.
10. Quality Control should ensure that no material is installed without an approved Submittal If material is installed without a submittal, UNOPS should be informed immediately and QC should document this and give specific location(s) in his daily report.
11. The Quality Control engineer must maintain and file submittals so that they can be readily retrievable.

**Bidder needs to place down the submittal flow diagram, replace the chart with flow diagram :**

****

## 11.2 Filling of Submittals

Submittals (Material, Design, Data, Samples, Shop Drawings, etc.) will be filed according to the specification section number in a secure place for reference and coordination. Color and mock-up samples will be maintained in a secure place, at the job site, for comparison with the finished product. A tag or sticker identifying the submittal number and the date of approval will be attached to the sample.

When a color or mock-up sample is not approved, it will have a “Rejected” tag or sticker attached to the item and it will be removed from the job site (if requested) and a copy of the record will be maintained along with a photograph of the disapproved item.

When submittals are not approved or incomplete, they will be returned to the supplier revised with comments. They will be corrected and re-submitted for approval.

The **UNOPS standard** Submittal Transmittal Form, furnished by the "Insert the name of bidder" will be used for submittals; All submittal forms will be signed by the QC Manager or his approved alternate.

## 11.3 Submittal Register

The Submittal Register will be maintained by the Submittal processing person. Revised copies of the Submittal Register will be provided to them on a monthly basis.

## 11.4 List of Key Submittals

Following is the list of submittals which will be provided to the UNOPS for approval before installation and utilization:

Key submittal list but not limited to, contractor needs to prepare the list according to to the project requirement:

1. Updated monthly report and program on project progress
2. Material specifications prior to procurement / manufacture
3. Type tests if such are required
4. Inspection of equipment during manufacture and prior to dispatch
5. Detailed plans
6. Design including plans, topographical survey, engineering calculations and drawings if required
7. Standard Structure designs

## 11.5 Review of Submittals

Following is the list of submittals which will be provided to the UNOPS for review before installation and utilization:

1. Test results and certificates of equipment and material supplies if required
2. Routine tests on concrete strength if required
3. Equipment and Materials receipt to store
4. Any other as specified by Project Manager

# **12. RECEIVING, HANDLING AND STORAGE**

## **1**2**.1 Receiving Inspection**

Material purchased from a supplier will be received by field personnel with the assistance of a Quality Control Representative. Receiving Inspection will be performed by a designated Quality Control Representative and documented in the Receiving Inspection Report.

Requirements for the inspection of material and equipment received will be established by the Quality Control Engineer and the Project Engineer. As a minimum, these requirements will include: verification of conformance with the purchase order, submittal, confirmation of documentation, traceability, quantity, Configuration, and other identification requirements.

Suppliers will be required to furnish specific documentation with each shipment as specified in the Purchase Order. Certified Material Test Reports (CMTR’s), Certificates of Compliance (C of C) and/or other related documents will be reviewed by a Quality Control Representative.

Material without proper documentation and/or identification will be tagged "Hold" by Quality Control and placed in a segregated “Holding Area” (if feasible) and withheld from use until the specified documentation is received and the material is satisfactorily identified.

The Quality Control Engineer will be notified by receiving personnel when material arrives on site. If the receiving inspection is not performed at the time the material arrives onsite, the shipment will be tagged "Hold" and/or placed in a segregated “Holding Area” until the receiving inspection has been completed. Damage or “Variations” will be detailed on the shipping documents and the supplier and/or owner notified by a Quality Control Representative. The Quality Control Engineer will determine the action to be taken.

## 12.2 Handling, Storage and Shipping

The Quality Control Engineer and Project Engineer will be responsible for establishing the requirements for the control of: handling, storage, cleaning and preservation of material and equipment. These requirements will be delineated in the Warehousing Procedures.

The Quality Control Engineer and Project Engineer will issue specific storage requirements for: primer, paint, sealant, insulated wire and cable, welding materials, concrete materials, reinforcing steel, equipment, instrumentation, etc., as applicable. Consideration will be given to requirements for protective coatings, coverings, special equipment and protective environments (inert gas atmosphere, moisture and temperature levels).

Storage requirements will be determined from the manufacturer's recommendations and specifications. The Quality Control Engineer and Project Engineer will establish the storage requirements. The Quality Control Engineer will ensure compliance with the storage requirements.

The Quality Control Engineer will evaluate the storage areas to ensure they meet the requirements. Those items requiring “special storage” such as: (paints, insulated wire and cable, etc if applicable to the project)., will be listed and their storage requirements specified. Quality Control will ensure protection has been provided as specified. Warehousing and lay-down areas will be controlled in such a manner as to ensure that the correct materials are issued to authorized personnel and to prevent the use of incorrect, not tested or defective materials, parts and components from being installed.

The Quality Control Engineer will ensure, through monitoring the storage areas, that the special requirements set forth in Warehousing Procedures are met and maintained.

# **13. Material Received Prior to Approval**

Quality Control will inspect material and compare it with the Packing List, Purchase Order, Submittal, Specification, etc. before submission of it to the UNOPS.

# **14. Storage of Construction Material on site**

The "Insert the name of bidder" will deliver the construction material after inspection of source, testing and approval of the UNOPS engineer, the material must be unloaded in safe place to not disturb the movement of the people, traffic and do not make the environment dusty, as per the daily need of the site activities the material will be deliver, UNOPS engineer has responsibility and authority to not allow more than needed material for two days to the site.

## 15. Monthly Coordination/progress Meeting

The monthly coordination/progress meeting will be conducted between project lead/CME Engineers, QA/QC and "Insert the name of bidder" Key staff, the meeting has to be recorded in **monthly site progress meeting form** and shared to participants and partners.

The following main points will be discussed but not limited to

* 1. Minutes of Previous Meeting
* Issues/problems/ endorsement
  1. Key visitors to site
* Name, purpose and outcome of the visit including any follow up action required
* Example: the donor’s HSSE officer, Mrs….. Visited the site for two days and instructed to avail adequate PPE for the construction workforce before the next HSSE performance monitoring
  1. Matters arising
  2. Progress vs Contract Programme
* Mobilization
* Overall Progress and Challenges
* Review on major Bill of Quantities items
  1. Quality management
* Materials, workmanship, plant and equipment
* Non-conformance
* Inspection test plans
  1. Finance
* Cash flow
* Interim payment certificate
  1. Contractual issues - claims and disputes
* Review current status of claims and disputes
  1. Technical matters
* Drawings, instructions, etc.
  1. Possession of site and right of access
  2. Occupational health and safety
* Health and safety management performance
* Incidents
  1. Social and environmental matters
* Social and Environmental management performance
* Complaints and grievances
  1. Any other business
  2. Date, time and venue of next meeting

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# **16. Construction Materials Source Inspection:**

when the source is approved the "Insert the name of bidder" QC engineer will deliver the material to the labe for testing if required, the testing result must be shared with the with UNOPS CME for final approval through the form No-06 APPROVAL FOR WORK/MATERIALS (AFW/M) refer to the construction supervision forms package submitted to the contractor.

Prior to source inspection, a Quality Control Representative will review the status of work, critical items, tests required, points to be inspected and documentation requirements.

The supplier will be notified by the Quality Control Engineer of any problems or non-conformances which are determined as a result of the inspection with a request for reply when warranted.

"Insert the name of bidder" will ask the UNOPS 24hrs prior Construction Management Engineer to have joint inspection of construction materials and receive official approval through the form **approval of work materials**, when the source is physically inspected and do not need for the lab testing the company right to use it.

But some of the construction materials need to be tested in the lab, if the result is passed the contractor will use it.

In both above cases, when the source is approved the "Insert the name of bidder"does not have the right to change the source without UNOPS engineer approval, if unapproved source materials were deliver to the site UNOPS Engineers will immediately reject, the "Insert the name of bidder" will removed from the site with 24hrs.

The "Insert the name of bidder" will maintain on the site the approved and tested source sample in well condition and available for inspection during the working hours for UNOPS site CMEs and QA/QC.

# **17. NON-CONFORMING ITEMS**

## **1**7**.1 Scope**

This section establishes the system for control of materials, parts and/or components which do not conform to the requirements. Additionally, this section prevents the unauthorized use and/or installation of non-conforming item(s) and controls processing pending disposition.

To record the necessary data about the nonconforming items, a specific register will be maintained on site. For the register "Insert the name of bidder" will be using the UNOPS **Form 19 Non-conformance Register.** Nonconformance reports will be prepared and submitted using **Form 18 Nonconformance report.**

## 17.2 Non-Conforming Items

1. Non-conforming items are those conditions which deviate from the requirements delineated in the plans, specifications and/or shop drawings. The Quality Control Engineer will be responsible for the rejection of non- conforming items or work.
2. The Quality Control Engineer will remove non-conforming items as soon as possible to prevent them from accidentally being installed.
3. Minor non-conforming items, which are corrected in the same day, will be documented in the “Daily Report”
4. All other non-conformances will be documented on a Non-Conformance Report prepared by a Quality Control Representative and if applicable. Each Non-Conformance Report (NCR) will be sequentially numbered and dated, and noted in QCS under Deficiencies in order to track until removed/repaired, and will include the following information, as appropriate.
5. Description of the non-conformance including relevant details of the occurrence.
6. Identification of material, component, or system by part number, drawing and/or specification
7. Number and the intended location.
8. Source of material or item (name of supplier, owner).
9. Current status of item in shop, warehouse, lay-down yard or structure.
10. Individual and organization which detected the non-conformance.
11. Recommendation for corrective action; including sketches, test data and/or repair procedures necessary to substantiate the recommendation.
12. Cause of the non-conformance and steps taken to prevent reoccurrence indicating action taken, positions or titles of persons contacted, letters written and/or procedural changes proposed.

7. The Quality Control Engineer and/or designee will note the Non-Conformance Materials or work to the QCS in order to track until removed/repaired sign and forward the Non-Conformance Report to the UNOPS, Project Manager.

6. Each Non-Conformance Report issued will be register in order to track until removed/repaired and Non-Conformance Report Log and if applicable, the UNOPS “Records Management System” by a Quality Control Representative. The Non-Conformance Report (original) will be filed and copies distributed accordingly.

**17.3 Rejection/Scrap:** if any construction material used or any activity completed but does not meet the specification, design minimum requirement will be rejected. There are exceptional circumstances in such a case "Insert the name of bidder" will justify technically.

For example: Steel reinforcement bar with yield strength less than the specified minimum strength. In such cases, there are exceptional circumstances where the structural element (beams, columns, slabs, etc.) can be re-analysed and designed based on available steel material in the market. Of course, this requires the expertise and recommendation of the responsible and authorized design practitioner

**17.4 Re-work:** This is the process by which the non-conformance work or component of work is brought to specified requirements through relevant correction or additional works. Rework is usually accompanied by relevant re-inspection and testing to demonstrate compliance.

For Example: Damaged masonry wall can be reworked or repaired and accepted.

**17.5 Acceptance:** Non-conformance work or materials can be conditionally accepted as is based on statistical judgements comparing the sample mean result and individual test values for a given lot. The overarching determination is the fact that the nonconformance does not compromise safety to life and functionality requirements for the works or components of the works.

Example: Marginal percentage compaction of asphalt concrete wearing course as compared to specified Marshall Compaction level.

# **18. Punch-out/checklists**

## 18.1 Internal Punch-Out Inspection

At least 15 days before completion of construction, the Quality Control Engineer will coordinate a Punch-Out Inspection and develop a “Punch List” of deficiencies noted. The Punch List will be submitted to the Project Manager for corrective action. Corrections will be accomplished within the time stated. The Quality Control Department will perform Follow-Up Inspections to ensure the deficiencies have been corrected before notifying the UNOPS of a Pre-Final Inspection.

### 18.2 Pre-Final Inspection

After the completion of the Punch-Out Inspection, the Quality Control Engineer and QC MANAGER Representatives will perform a Pre-Final Inspection and develop a joint “Punch List” of noted deficiencies. The Punch List will be formally documented along with the estimated date by which the deficiencies will be corrected. The Quality Control Engineer will perform Follow-Up Inspection to ensure that all deficiencies have been corrected before notifying the UNOPS of a request for Final Inspection.

### 18.3 Final Inspection

Upon completion of the items listed in the Pre-Final Inspection “Punch List”, Quality Control will notify the UNOPS 10 days prior to the Final Inspection (or as agreed to on site) with the assurance that all items listed in the Pre-Final Inspection and all other remaining work has been completed and will be acceptable by the date of the Final Inspection.

**UNOPS Construction Supervision forms:**

It is mandatory that contractors use UNOPS standard construction supervision relevant forms throughout the project implementation cycle.

If the bidder has other QA/QC forms to manage progress and quality could be used and add to the plan.

Letters of Authorization to the Key staff, bidder need to place the letter and submit along with the QC plan.

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