

ATTACHMENT (F4_A_4.1)

QA/QC PLAN

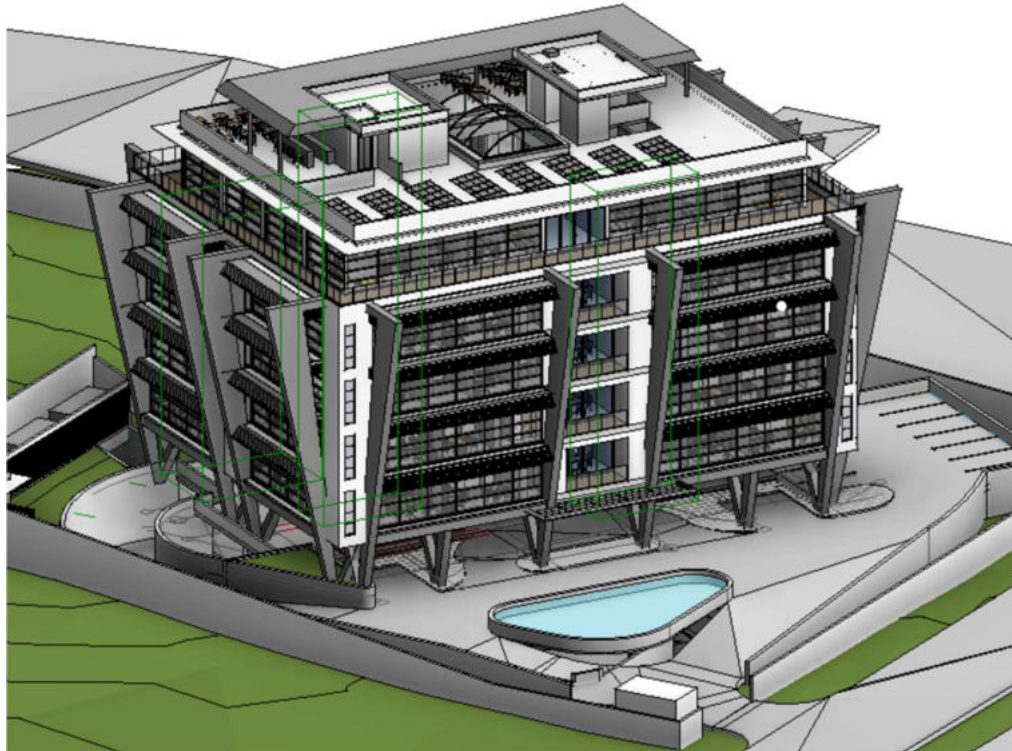
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Client: NIGERIA SOVEREIGN INVESTMENT AUTHORITY (NSIA)

Project: CONSTRUCTION WORKS FOR THE PROPOSED NSIA MULTI-
STOREY HEAD OFFICE DEVELOPMENT

Reference: D11.00.1.RCN.L.2026.0172

Submission Date: October 19, 2026



Nigeria Sovereign Investment Authority (NSIA)

QUALITY MANAGEMENT PLAN [MANUAL]

DOCUMENT REVIEW AND APPROVAL OF THIS ISSUE

REV.	DATE	DESCRIPTION	Date PREPARED	Sign. PREPARED	Date REVIEWED	Sign. REVIEWED	Date APPROVED	Sign. APPROVED
0.1	t.b.d	Draft		QM-R		TM		PM

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DOCUMENT REVISION HISTORY

S/N	REV.	DESCRIPTION	PREPARED	REVIEWED	APPROVED
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Table of Contents

1. INTRODUCTION, POLICY AND OBJECTIVES.....	5
1.1. INTRODUCTION	5
1.2. QUALITY POLICY	5
1.3. QUALITY OBJECTIVES	6
<i>Table 1.3-1: Quality Objectives.....</i>	<i>7</i>
2. PURPOSE AND SCOPE.....	8
2.1. PURPOSE	8
2.2. SCOPE OF WORKS	8
3. PROJECT ORGANIZATION.....	9
3.1. CLIENT'S ORGANIZATION.....	9
3.2. JBN PLC ORGANIZATION STRUCTURE	9
3.2.1. JBN Plc Home Office Organization.....	9
3.2.2. - Construction Project Organization.....	10
3.3. CONSTRUCTION PROJECT PERSONNEL – CONTACTS.....	10
3.4. RESPONSIBILITIES AND AUTHORITIES	10
3.4.1. General	10
3.4.2. Delegation in Absence	11
3.4.3. Key Responsibilities	11
3.4.4. Delegated Authority.....	16
4. PROJECT ADMINISTRATION AND CONTROL.....	17
4.1. GENERAL.....	17
4.2. CONTRACT ADMINISTRATION	17
4.2.1. Contract Administration	17
4.2.2. Quantity Survey.....	17
4.3. PLANNING AND SCHEDULE	18
4.4. PROGRESS MONITORING AND REPORTING.....	19
4.5. INVOICING	20
4.6. PERFORMANCE REPORTING AND CONTROLLING	20
4.6.1. General	20
4.6.2. Work Estimation	21
4.6.3. Performance Reporting	21
4.6.4. Quantity Control	22
4.6.5. Resource Control	23
4.7. MEETINGS	24
4.7.1. Weekly Project Team Meeting.....	24

4.8.	DOCUMENT MANAGEMENT	24
4.8.1.	Correspondence.....	25
4.8.2.	Quality Records.....	25
4.8.3.	Filing, Archiving and Access Rights to Documents.....	25
4.9.	RISK IDENTIFICATION AND MANAGEMENT.....	25
4.10.	COMMUNITY ISSUES AND PUBLIC RELATIONS	26
4.11.	SECURITY.....	26
5.	HUMAN RESOURCE MANAGEMENT	26
6.	PROCUREMENT	26
7.	HEALTH, SAFETY, ENVIRONMENT.....	27
8.	CONSTRUCTION	27
8.1.	GENERAL.....	27
8.2.	PLANT AND EQUIPMENT	27
8.3.	QUALITY ASSURANCE / QUALITY CONTROL	28
9.	PROJECT QUALITY MANAGEMENT SYSTEM.....	28
9.1.	GENERAL.....	28
9.2.	QUALITY SYSTEM DOCUMENTATION	29
9.2.1.	Document Types and Hierarchy	29
9.2.2.	Documentation Issue, Distribution and Availability	30
9.3.	QMS MEASUREMENT, REVIEW AND IMPROVEMENT PROCESSES.....	31
9.3.1.	Quality Audits.....	31
9.3.2.	Control of Non-Conforming Work	32
9.3.3.	Quality Management System Review.....	32
9.3.4.	Quality Management System Improvement.....	33
9.3.5.	Customer Satisfaction	33
9.4.	CORPORATE QUALITY PROCEDURES	34
10.	DEFINITIONS, ABBREVIATIONS.....	35
10.1.	DEFINITIONS	35
10.2.	ABBREVIATIONS	35
11.	REFERENCES	38
11.1.	CONTRACT DOCUMENT	38
11.2.	JBN PLC CORPORATE QMS DOCUMENTATION	38
11.3.	REGION CENTRAL AND NORTH QMS DOCUMENTATION.....	38
11.4.	OTHERS	38
12.	ATTACHMENTS	38
13.	TABLES AND FIGURES OVERVIEW	38

1. INTRODUCTION, POLICY AND OBJECTIVES

1.1. INTRODUCTION

This document outlines the procedures, quality assurance measures, and compliance requirements to ensure that construction activities at the **Nigeria Sovereign Investment Authority (NSIA) Project** meet industry standards, and client expectations.

The NSIA Head Office Project involves the construction of a new multi-storey head office for the Nigeria Sovereign Investment Authority (NSIA) in Abuja, FCT. The development is situated on a total land area of 6,117.270 sqm and comprises a main building with a basement, ground floor, five suspended floors, a central atrium and a roof terrace, alongside a gatehouse and services buildings.

The Project Management Team oversees all activities and operations. The plan follows ISO 9001 standards and aligns with Julius Berger Nigeria's '**Corporate Quality Policy**,' aiming to exceed client expectations by meeting all project requirements, specifications, and standards.

JBN Quality Management System

JBN operates a third-party certificated Quality Management System that meets the requirements of ISO 9001:2015. The Quality management System employs the process approach, which incorporates the Plan-Do-Check-Act (PDCA) cycle.

The JBN QMS identifies and defines key processes which are aligned with core concepts and principles of ISO 9001:2015 and includes: System Documentation Processes, Organization Management Processes, Resource Management Processes, Product Realization Processes, and Measurement, Analysis and Improvement Processes.

1.2. QUALITY POLICY

JBN Plc Corporate Quality Policy statement defines the quality policy for the Project.

The current Corporate Quality Policy states as follows:

'The economic fulfilment of our customers' requirements is the basis of our success. Julius Berger Nigeria is therefore committed to constantly enhance our customers' satisfaction with the aim to build and maintain long-term relationships through a spirit of partnership.'

To achieve this, a quality management system in accordance with ISO 9001:2015 is implemented, maintained and continually improved. The system provides assurance that our know-how and experience is providing solutions for building, infrastructure and industry with consistently superior quality. It defines the standards, which are necessary for the achievement of our corporate goals.

Julius Berger Nigeria Plc is committed to the effective and efficient implementation of the quality management system by maintaining an environment of awareness and a culture of trust, shared value, ethical behaviour and integrity, supported by deep understanding of the context of our organization.

Key elements of our quality management system are:

- Flexibility of the quality management system to accommodate the ever-changing business environment as well as the expectations of our relevant interested parties*
- Responsibilities and authorities are well defined to enable clear leadership at all levels of our organization*
- Process monitoring and process improvement is facilitated by setting of measurable objectives for main processes*
- All our employees are committed to continuous improvement of our quality management system's effectiveness and efficiency and to financial success.*

Compliance of our quality management system with ISO 9001:2015 requirements shall demonstrate our commitment and ability to consistently fulfil customer requirements.'

The corporate policy statement has been signed by JBN's Managing Director.

The Corporate Quality policy statement is communicated to all project personnel and is prominently displayed on project noticeboards and offices.

1.3. QUALITY OBJECTIVES

The quality policy statement sets out the principles that guide our day-to-day decision-making and represents the overall purpose and objectives we strive for. To ensure effective and efficient implementation of the quality management system, quality objectives have been defined in line with the quality policy by Corporate Management. The defined quality objectives provide the required guidance and direction for the successful execution of the quality management system.

Elements of the quality objectives are:

- Aligned with Corporate Quality Policy
- Measurable
- Relevant to Product and Service Conformance
- Customer-Focused
- Flexible for Improvement
- Risk-Based Thinking

To be able to track progress toward those goals, assure proper monitoring, and continuously improve, essential project performance categories have been identified, and quantifiable key objectives have been established.

Table 1.3-1: Quality Objectives

CATEGORIES	KEY OBJECTIVES	MEASUREMENT
Customer	• Consistently meeting customer requirements • Quality of service to be the best value in the industry	• Project completion with no outstanding issues pending • Customer feedback as received through correspondence, interviews and meetings
Quality	• Full conformity of works at contract completion • Preventing non-conformities • Clearing of non-conformities as soon as practicable by approved resolution • No outstanding non-conformities remain at project completion	• Works accepted and signed off at contractual completion dates • Number of non-conformance reports issued • Non-conformances closed within a reasonable period to ensure no delay against the construction program • All non-conformance reports closed out
Time	• Completion of works per agreed milestones and contractual completion date	• Actual against planned progress
Financial	• Project costs within budget • Cash flow according to plan	• Actual versus planned costs from cost control reporting • Actual versus planned cash flow from financial reporting

Employee Relations	• Develop a harmonious, productive and efficient working team • Yearly reviews completed for key positions • Continuous professional skill development	• No time loss due to industrial disputes • staff turnover • Plan and carry out training program
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The Project Management has defined its project-specific objectives in accordance with CQP-5.01: Monitoring and Measurement of Processes '**Attachment 1.3-1: Performance Indicator Deployment Form**'

The objectives and appropriate performance indicators allow the measurement of progress towards achieving set out objectives.

2. PURPOSE AND SCOPE

2.1.PURPOSE

The purpose of this document is to describe the project management system and the specific practices and controlling tools to achieve the Project quality objectives.

The Project Quality Management Plan describes how JBN corporate quality management system requirements are addressed by the project management in its specific operations.

The document addresses the intention that all project personnel is provided with rules and guidelines to fulfil contract and project quality management system requirements.

2.2.SCOPE OF WORKS

The Scope of work covered by the quality management system described in this document includes:

- Reinforced Concrete Works
- Masonry / Brickwork
- External Works (landscaping & fence works)
- Electrical and Mechanical Works
- Plumbing Works
- Building Finishing Works

Section 2.2 shall be in accordance with the contract scope of work; refer to '**Description of Work and Bill of Quantities**' [BOQ].

3. PROJECT ORGANIZATION

3.1.CLIENT'S ORGANIZATION

(1) Nigeria Sovereign Investment Authority Contact Address:

Nigeria Sovereign Investment Authority Project
Plot 1838, Off Kur Muhammed Avenue,
Central Area District, Abuja

The following 'Table 3.1-1: Client/Consultant's Personnel Contacts' lists Key personnel contacts for the Construction of Project. The information will be kept current and revised as appropriate.

Table 3.1-1: Client/ Consultant's Personnel Contacts

Name	Position	Email	Mobile Phone +234
t.b.d	t.b.d	t.b.d	t.b.d

3.2.JBN PLC ORGANIZATION STRUCTURE

3.2.1. JBN Plc Home Office Organization

(1) JBN Plc Region Central and North Management is the responsible operative organizational unit of Julius Berger Nigeria Plc for the Construction of Projects in the North and Central regions of Nigeria.

(2) JBN Plc's home office address is:

JULIUS BERGER NIGERIA PLC
No. 10 Shettima A. Munguno Crescent
Utako District
P.O. Box 453, Abuja, F.C.T.

3.2.2. - Construction Project Organization

- (1) The Construction Project Organization Chart is shown in '**Attachment 3.4.2-1: Project Organization Chart**'. The chart will be kept current by project management and is available upon request.
- (2) The Project Manager shall be the contractor's representative in accordance with contract requirements.

3.3. CONSTRUCTION PROJECT PERSONNEL – CONTACTS

'**Attachment 3.5-1: Project Personnel Contacts**' provides a listing of Key personnel contacts involved in the project. The information will be kept current and revised as appropriate.

3.4. RESPONSIBILITIES AND AUTHORITIES

3.4.1. General

- (1) This section of the quality manual is concerned with the description of responsibilities and authorities of key functions in the project organisation.
- (2) The involvement of all in implementing, maintaining and continually improving the quality management processes is the key to successful project management and achievement of quality objectives set. All personnel are therefore required to be familiar with the content of this plan and to participate in implementing, maintaining and improving the management system defined herein.
- (3) It is the responsibility of the respective line managers to ensure that the requirements for quality are fulfilled for works under their responsibility.
- (4) All new staff and staff who are given new responsibilities are to be inducted into the requirements set out in this plan in general and into their function and responsibilities in particular. A verification sheet of attendance at the Quality Management induction meeting shall be used.
- (5) Human resource planning and recruitment are carried out in accordance with JBN corporate regulations to ensure the availability of adequate and capable personnel on time.

- (6) Staff performance assessments are carried out annually in accordance with JBN Plc corporate requirements. Specific training needs are identified and addressed appropriately.

3.4.2. Delegation in Absence

- (1) Key Personnel when absent from their respective assignment, are responsible for delegating their duties. Such delegation shall be in writing.
- (2) It is emphasized that execution of tasks may be delegated; responsibilities may not.

3.4.3. Key Responsibilities

- (1) The following ‘**Table 3.6-1: Key Responsibility Matrix**’ shows the project team and supporting team members' key responsibilities.
- (2) Detailed function descriptions, including responsibilities, scope, authorities and qualifications are contained in job descriptions.

Table 3.6-1: Key Responsibility Matrix

Position	Key Responsibilities
Project Manager [PM]	• Reports to Regional Technical Manager [RTM] • Represents JBN Plc towards Employer in all matters that directly relate to the contract • Overall technical and commercial responsibility for the execution of the project in accordance with the requirements of the contract • Defines project organization • Manages and directs the appointed project team and staff • Defines immediate and project duration objectives • Overall responsibility for implementation, maintenance and continual improvement of the Project Quality Management Plan • Overall responsibility for implementation, maintenance and continual improvement of the Project Safety Plan.
Commercial Manager [COM]	• Reports to the Regional Commercial Manager [RCM] • Overall responsibility for all financial and administrative matters including site security and medical services • Defines administrative and financial objectives • Manages and directs the commercial department functions including human resource management, accounting, store and material,

Position	Key Responsibilities
	administration, logistics, wages, and camp/office administration (if applicable) • Conducts management of operational funds • Analyses and prepares capital requirements, cash flows and operating needs, in collaboration with others • Prepares financial statements • Responsible for all tax matters, fiscal conduct of payrolls, sub-contractors and third-party payments • Directs preparation of invoices for progress and final payments • Devices, approves and implements procedures and systems pertinent to financial controls • Implements and maintains a Project Quality Management Plan for the processes under his/ her responsibility.
DCC/ Secretary	• Reports to Commercial Manager • Coordination of administrative matters, including correspondence. • Manage project DCC in accordance with relevant Corporate Quality Procedures. • Responsible for implementing the project quality management plan for the activities under his/ her responsibility.
Technical Office Engineer [TOE]	• Reports to Project Manager • Supervises and manages the technical office functions, including, but not limited to: DCC, controlling, time scheduling, procurement, material control, engineering and review of Construction Method Statements • Developing, maintaining and implementing quality management system documentation in accordance with corporate, region and contract requirements in conjunction with the QA/QC Manager • Responsible for review of design and engineering documents and coordination/ preparation of shop drawings where necessary • Preparation of technical documentation, including determination of quantities for material procurement • Technical document review and control including distribution of drawings and other technical documents for use in the works; in accordance with requirements. • Preparation and recording of status meetings • Internal and external progress and performance reporting

Position	Key Responsibilities
	• Preparation of cost schedule, performance sheet, and internal performance reports, along with cost control and relevant reporting in accordance with JBN Plc requirements. • Preparation of quantity and cost-target vs. actual comparison • Assisting the Commercial Manager in checking vouchers • Determines subcontract budgets • Implements and maintains a Project Quality Management Plan for the processes under his/ her responsibility • Supervises and manages the site survey section through the Chief Surveyor.
Mechanical/ Electrical / Plumbing Engineer / Manager (MEP Manager)	• Reports to the Project Manager • Liaise with the Client/ Consultants in case of work preparation for electrical/mechanical / plumbing problems • Would only be involved solely on request by the Project Manager / the Technical Office Engineer / Operations Manager.
Operations / Site Manager [OM / SM]	• Reports to Project Manager • Responsible for the timely, orderly and proper execution of all construction works in accordance with the construction programme and quality • Supervises and manages Site Manager(s)/ Supervisors • Supervises, manages and coordinates construction personnel • Responsible for managing subcontracts for construction works and supervises and coordinating activities of subcontractors for such works • Defines construction-related objectives • Responsible for conformity of all construction works with contractual requirements in regard to quality • Implements and enforces the Project Safety Plan • Implements the Project Quality Management Plan for construction processes under his/ her responsibility • Review of internal and external progress and performance reporting • Monitors progress and cost • Review of quantity/ cost reconciliation exercises • Preparation of Construction Method Statements in collaboration with TOE / QM.
Quantity Surveyor [QS]	• Reports to TOE

Position	Key Responsibilities
	- Responsible for the measurement of works in accordance with the terms of the contract - Advises on contract conflicts as relates to measurement / re-measurement of works - Prepares quantity evaluations for progress valuations and invoices - Prepares contractual documentation for subcontractors and suppliers in regard to quantities - Re-measurement of subcontractors work for payment - Implements and maintains a Project Quality Management Plan for the processes under her/ his responsibility.
Chief Surveyor [SUR]	- Reports to Project Manager - Responsible for all survey works on the project - Carries out surveys and communicates with the Operations / Site Manager on issues of setting out - Carries out 'as-built survey data' and hands it over to the technical office - Implement the Project Quality Management Plan for activities under her/ his responsibility.
Contract Manager [CM]	- Report on all project-related issues to the Project Manager - Responsible for advising the Project Manager on all contractual matters relating to the main contract as well as to supply- and subcontracts - Assists project management in the preparation of contract documents for subcontractors and suppliers - Advises on contract conflicts and assessing claim potentials - Prepares claims and assists in pricing - Develop and implement contract monitoring procedures - Valuation and final account of works for payments - Directs preparation of invoices for progress payment - Implements and maintains Project Quality Management Plan for the processes under his/ her responsibility.
Laboratory Manager/ Engineer [LAB]	- Reports on all project-related construction material testing matters to the Project Manager - Responsible for testing of all materials and works through site laboratory and/or third parties as may be required including related documentation - Responsible for implementing the Project Safety Plan for her/ his section - Responsible for implementing the project quality management plan for the activities under his/ her responsibility

Position	Key Responsibilities
HSE Manager [HSE]	• Reports to Project Manager • Refer to 'Health, Safety and Environmental Plan for the project' • Responsible for implementing the project quality management plan for the activities under his/ her responsibility
Project Quality Manager [PQM]	• Reports on all project QA/QC matters to PM • Developing, maintaining and implementing quality management system documentation in accordance with corporate, regional and contract requirements in conjunction with the TOE • Ensures full, proper and effective implementation of QMPIn. • Reviewing of QA/QC documentation prepared by project personnel in compliance with contract and QMPIn requirements • Reviewing supplier and subcontractor QA/QC documentation for compliance with contract requirements • Collaborating with the project team on all QA/QC matters • Ensuring, in conjunction with the Laboratory Manager, that inspection and testing of works and materials are carried out and documented. Verifies and documents compliance with contract requirements • In conjunction with Operations / Site Manager(s), collects and retains all construction quality records • Ensuring that applicable standards and related documents are collected and maintained. • Internal and external reporting on quality in accordance with QMPIn and contract requirements.
Supervisor(s) [SV]	• Reports to Operations / Site Manager(s) • Responsible for the proper execution of all works • Supervises JBN Plc worker(s) on-site and subcontractors if required. • Responsible for implementing the project quality management plan for the activities under his/ her responsibility
Security [SEC]	• Reports to Project Manager [PM] / Commercial Manager [COM] • Responsible for the overall planning, direction, advice and control of project security • Control and ensure that the Security Standard Procedures and Site Security Plans are being fully complied with. • Ensures that regular site security is reported to the project management. • Values and implements the HSE regulations of JBN under his / her responsibility.

Position	Key Responsibilities
	Responsible for implementing the project quality management plan for the activities under his/ her responsibility.

3.4.4. Delegated Authority

- (1) To ensure effective and controlled implementation of all transactions, authorities are being delegated to management and project functions.
- (2) Schedule of Corporate Delegated Authority Matrix '**Refer to CQP-210 Schedule of Delegated Authority Matrix**' sets out the allocated authorities in tabular form for each key position in JBN executive management and Region Central and North management as well as project organization.
- (3) Schedule of Delegated Authority '**Attachment 3.6.4-1: Schedule of Delegated Authority**' sets out the allocated authorities in tabular form for each key position on the project organization.
- (4) The basic principles behind authorities delegated are:
 - Region Central and North operates on the "4 eye principle", i.e. all documents, correspondence, procurement undertakings or authorizations issued by any part of Region Central and North organization require 2 signatures unless shown otherwise in the Schedule of Delegated Authority '**Attachment 3.6.4-1: Schedule of Delegated Authority**'.
 - Authority to sign a contract agreement and claims and variations shall be according to '**Attachment 3.6.4-1: Schedule of Delegated Authority**'.
 - All foreign currency commitments or payments must be approved by the Financial Director [FD].
 - Purchase of capital assets requires corporate approval.
- (5) Key personnel when absent from their respective assignment are responsible for delegating their duties. Such a delegation shall be in writing. It is emphasized that execution of tasks may be delegated, responsibilities may not.

4. PROJECT ADMINISTRATION AND CONTROL

4.1. GENERAL

- (1) This Section is concerned with the construction of the proposed NSIA Office Development Project administration and control activities that are defined to ensure comprehensive and continual control over all aspects of project performance.
- (2) All forms used in the day-to-day business of construction works are collected on the project server and can be viewed by the key project personnel in possession of the correct server access rights.

For Key Project control activities, related responsibilities and frequencies, refer to **‘Attachment 4.1-1: Region Central and North Report-Control Plan’**.

4.2. CONTRACT ADMINISTRATION

4.2.1. Contract Administration

- (1) Contract administration is to ensure that:
 - a) Contract obligations are consistently fulfilled.
 - b) Any matter that may have an impact on the NSIA Construction Project performance and final contract price is identified and documented.
 - c) Contractual notices are served following contract requirements.
 - d) All works carried out are included in the contract price, and all works not included in the contract price are properly notified, evaluated and submitted to the Engineer in accordance with contract requirements.
- (2) JBN Plc Corporate Quality Procedure CQP-410: Contract Administration-Construction shall be applicable.

4.2.2. Quantity Survey

- (1) The contract works is a Lump sum contract.
- (2) The basis for re-measurement and payment is the agreed ‘Bill of Quantities’ [BoQ] or ‘Bill of Engineering Measurement and Evaluation’ [BEME] forming part of the contract documents.

(3) Re-measurement of quantities is made by using:

- Approved drawings
- Field measurements
 - Field measurements are made jointly by the Engineer and JBN Plc Quantity Surveyors. Measurement protocols are signed by both parties.
 - Full measurement documentation is prepared and covered by a uniquely numbered '**Measurement Sheet Summary**', which is signed by JBN project personnel and countersigned by the Engineer.

Section **4.2.2** shall be in accordance with the project's Contract Agreement.

4.3. PLANNING AND SCHEDULE

- (1) Human resource, equipment and material procurement planning is based on the current **Construction Baseline Schedule**. Relevant changes, including resource needs, will be incorporated and communicated.
- (2) Management of the schedule is the responsibility of the Scheduler, under the supervision of the Technical Office Engineer. Detailed construction input comes from the Operations/ Site Manager.
- (3) A month's look ahead is prepared monthly by the Scheduler and /or Technical Office Engineer and distributed to the Project Manager and Operations / Site Manager.
- (4) From the baseline construction schedule, 'Material Schedules' are established and maintained for main construction materials, for example
- Earthwork
 - Crushed rock
 - Concrete + Asphalt works
 - Finishing works.
- (5) Any changes to the respective current construction schedule shall be reviewed by all JBN and JBI GMBH parties involved in the project, including the design and purchase department.
- (6) Each agreed schedule shall be identified by date and revision code. History baseline programmes shall be documented.

- (7) Material supply and subcontract service needs shall be identified; procurement dates and service commencement dates shall be defined and recorded
- (8) To define precise sequencing and timing of works, the Operations/ Site Manager in conjunction with the Scheduler, prepares detailed work programs for their specific section of works; for example, weekly/ monthly concrete pour forecast or work forecast program.
- (9) Work programs should include daily progress targets, appropriately defined as the quantity of work to be performed.

4.4.PROGRESS MONITORING AND REPORTING

- (1) The basis for progress monitoring is the agreed construction baseline programme and any agreed change thereto.
- (2) Variance to contract baseline schedule shall be identified, its relevance established and addressed in accordance with the contract.
- (3) Activity and progress are reported internally and to the Engineer via schedule and re-measurement. Both time and quantity progress will then be compared against each other.
 - **Daily Site Reports** are prepared by Site Supervisors and reviewed/ signed by the Site Manager. This report controls the daily usage of equipment and human resources and the respective status and presents the daily construction program of the respective crew. Any event or condition which may cause delays, disruption or interference with the works **MUST** be noted in the 'Remarks' field. These events include, but are not limited to, weather, Employer instructions, QA/QC issues, HSE issues, industrial/community issues, Force Majeure, etc.
 - The **Internal Monthly Report** is detailed and available through PM upon request. This report is written by TOE and reviewed by PM. Refer to '**Attachment 6.1-1: Region Central and North Report Control Plan**'
 - **Monthly Report** is prepared monthly by TOE and submitted to the Engineer in accordance with the contract
- (4) **Weekly and Monthly QA/QC reports** is prepared by the QA/QC personnel on site and submitted to the QM-R.

4.5. INVOICING

- (1) Monthly application for interim payment in the format agreed with the Engineer, Client and/or Client representations shall be submitted monthly, stating the estimated contract value of permanent works executed up to the end of the previous month.
- (2) For monthly 'Certificate valuation' [CV], the actual quantities are valued, using the format of the BEME for each item, and as summaries for each Bill No.
- (3) Such monthly interim payment applications will be prepared by the Quantity Surveyor, signed by the Project Manager and Commercial Manager and issued to the Engineer as a consecutively numbered 'Certificate'.
- (4) Payment status shall be monitored as a continual activity to ensure real-time information on payments made by the Client. Payment details shall be documented using the '**Payment Log**'.

4.6. PERFORMANCE REPORTING AND CONTROLLING

4.6.1. General

- (1) Controlling is a management tool to identify and assess risks in advance, define measures to control such risks, show the actual performance and result and forecast the final result.
- (2) Cost control on the project is carried out by the Controller under the Technical Office Management.
- (3) Cost control on the project shall be implemented in accordance with the respective current JBN Plc regulations 'Controlling Richtlinien' [CR]. The Corporate Controlling Department issues updates to the CRs and provides support upon request.
- (4) In accordance with CR 1 the project controlling will be implemented to satisfy Category A, B or C controlling requirements.
- (5) For the "Category B" project which does not have its own Project Controller. The Technical Office Engineer is responsible for cost control. Results of these exercises are reviewed with PM on a monthly basis.

4.6.2. Work Estimation

- (1) Work estimate AUS 0 will be established not later than a project-specific defined period after the project starts.
- (2) Further work estimates AUS 1, 2, etc. will be established per JBN Plc regulations [CR 3.1 refers] and more specifically in case of relevant changes to
 - Contract period
 - Construction methods
- (3) Scope of works (including subcontractor/ supplier scope of works)
- (4) Such revised work estimates shall be presented in accordance with JBN Regulations [CR 3.2 refers] and shall be available for the controlling steering meetings.
- (5) For performance reporting, the respective current work estimation updates, e.g. AUS 1.1, 1.2, 1.3 etc., as updates to AUS 1, shall be adjusted as necessary to be consistent with the respective current contract sum.

Refer to '**Attachment 6.1-1: Region Central and North Report Control Plan**'

4.6.3. Performance Reporting

- (1) The Performance Report and its attachments are prepared by TOE and reviewed by PM. It is due monthly and is also part of the internal monthly issues referred to in '**Attachment 6.1-1: Region Central and North Report Control Plan**'. They are available through PM upon request. Performance reporting is the internal reporting of the value of the monthly performance and includes the following:
 - Performance Report ("Monatliche Leistungsmeldung")
 - JBN Leistungblatt (Category "A" Projects)
- (2) The **performance report**
 - Reports the value of the monthly performance based on the exchange rate handed out by 'Central Accounts Section', actually valid for the month of the report "**Leistungsmeldungskurs**"

- contains performance of the reported month, cumulative performance up to the reported month, and planned performance detailed for
 - current calendar year
 - each following calendar year until contract completion
- shall be prepared in accordance with JBN regulations [CR 11 refers]

4.6.4. Quantity Control

- (1) The control of main quantities (or cost-relevant materials) shall be done in accordance with JBN regulations [CR 10 refers].
- (2) The following main materials have been identified and will be subject to quantity control
 - Diesel [refer to Attachment. 6.1-1: Region Central and North Report Control Plan]
 - Ready-Mix-Concrete
 - Cement
 - Sand
 - Aggregates
 - Reinforcement steel
 - Soil/ filling material
- (3) Main material consumption will be reviewed and compared with planned material consumption figures as available from material schedules. The material consumption forecast will be adjusted if necessary.
- (4) The control of these materials is handled via databases. Input consists of delivery notes from the site to establish “planned vs. actual” checks.
- (5) MATERIAL “planned vs. actual” must be checked monthly, COST “planned vs. actual” in ‘steering meetings’ or if necessary.
- (6) Diesel consumption of all sites/cost centres will be controlled monthly with the record ‘Fuel Statistic (Report 201+202 – Fuel List Single Issues for Supervisors)’. Single fuel consumptions exceeding 10% of the average allowed fuel have to be investigated and responded to the superior in due time.

- (7) Diesel consumption per project/cost account will be reported monthly by the projects as an attachment 'Diesel consumption per cost account' to the project reports. Benchmark comparisons will enable rough consumption control.
- (8) In general, all material requests are controlled via a two-signatory authorization procedure, according to '**Attachment 3.6-2: Schedule of Delegated Authority**'.
- (9) The supply of above mentioned materials as well as procurement and control of project-specific construction and finishing materials remains under the responsibility of the PM.
- (10) For related responsibilities and frequencies, refer to **Attachment 6.1-1: Region Central and North Report Control Plan**.

4.6.5. Resource Control

- (1) The main resources are
 - **Junior Staff [JSt]**
 - **Senior Staff [SSt]**
 - **International Staff [IntSt]**
 - **Equipment**
 - **Materials** (refer to Section 4.6.4 Quantity Control)
- (2) Resource control takes place monthly.
- (3) Forecast to Completion shall contain spent resources, to achieve monthly accurate forecasts and performance input.
- (4) The actual consumption of resources will be continuously compared with both the planned resources from the current work estimate and those from AUS 0.

4.7. MEETINGS

4.7.1. Weekly Project Team Meeting

- (1) The Construction of the Project management team meets weekly (if required) to discuss pending and critical issues, chaired by the PM. Attendees may vary.
- (2) The Minutes of the Meeting shall be used for documentation.

4.8. DOCUMENT MANAGEMENT

- (1) Applicable Corporate Quality Procedures [CQP]
 - CQP-101: Management System Documentation - Development and Release
 - CQP-102: Document Control – Distribution of Hardcopies
 - CQP-103: Document Change Control
 - CQP-104: Control of External Documents
 - CQP-105: Correspondence and Communication
 - CQP-110: Control of Quality Records
 - CQP-120: Filing and Archiving
 - CQP-140: Preparation of Management Plans
- (2) Responsibility for preparation/review [R] and approval [A] of management system documents, including any changes thereto, shall be as defined in '**Attachment 3.6.4-1: Schedule of Delegated Authority**'.
- (3) Electronic copies of all documents required for the works will be available on the project server. Where distribution of hard copies of documents is required, including drawings, specifications, QA/QC documents, HSE documents, and any other documents that may be subject to change, they will be distributed to designated personnel under cover of 'Transmittal Form'
- (4) Recipients of hard copies shall acknowledge receipt of such documents by signing on the relevant section of the DTF 'Document Transmittal Form'
- (5) A Project Master Document Register shall be prepared, maintained and kept current as documented information.

4.8.1. Correspondence

- (1) All external incoming and outgoing correspondence will be registered and receive a unique identification code in accordance with CQP-105.
- (2) Identification code: **D11.90/ [1or2]/xyz/ L, M, C../ [Year/Cons. No.] / D00-D90**
- (3) All **Emails** will usually be sent to personalized Email accounts and controlled as such.
- (4) All JBN Plc internal outgoing correspondence receives a unique identification code following CQP-105: Correspondence and Communication.
- (5) Signing and co-signing shall be according to project regulations, defined in **'Attachment 3.6.4-1: Schedule of Delegated Authority'**.

4.8.2. Quality Records

- (1) Records of project activities will be filed and retained in accordance with CQP-120.
- (2) Construction quality records, such as survey records, inspection records, material certificates, laboratory test reports, mix designs, etc., will be preserved as the 'Project Quality Record' in accordance with CQP-120.
- (3) Where records need to be signed by the Engineer or Client Representative, the signed copy shall be retained and archived on the project.

4.8.3. Filing, Archiving and Access Rights to Documents

- (1) A hard copy of all project documentation will be retained in the project archive under the responsibility of DCC.
- (2) Electronic copies of such documents will be put on the project server. The database folder structure is consistent with CQP-120 regulations. Directory and access regulations will be advised.

4.9. RISK IDENTIFICATION AND MANAGEMENT

- (1) Project risks and opportunities are identified, registered and continuously monitored.
- (2) Report on the status of risks and opportunities shall be included in monthly progress reports by PM and COM and has to be signed by Regional Management.

4.10. COMMUNITY ISSUES AND PUBLIC RELATIONS

- (1) Any community and project-related public relations issue will be managed by the Client.
- (2) Any issue that arises must be documented and, if necessary, notified to the Contractor, and it should be addressed during regular and special project meetings.

4.11. SECURITY

- (1) Site security is managed by Site Manager and Corporate Security Manager. Site security deals with all site security matters that may arise and all site traffic incidents, including traffic from and to site locations.
- (2) Security teams are established at each site installation and at all site entrances.
- (3) Security incidents are reported by site security personnel to Security Supervisor.
- (4) Major incidents are reported by Security Supervisor to Project Management.
- (5) All security matters are managed in accordance with corporate security policy and regulations.

5. HUMAN RESOURCE MANAGEMENT

- (1) Corporate Quality Procedure CQP-310: Human Resource Management is applicable.
- (2) The basis for human resource procurement is the respective current project organization chart, agreed upon by the Project and Regional Management.

6. PROCUREMENT

- (1) Procurement is an essential issue for the project management.
- (2) Corporate Quality Procedure 'CQP-430: Procurement' is applicable.
- (3) All procurement planning for materials and services shall be in line with the agreed construction schedule to ensure timely delivery according to specification.
- (4) All Subcontract services and product procurement planning shall be documented and monitored and shall be consistent with construction schedule needs.

7. HEALTH, SAFETY, ENVIRONMENT

Health, safety and environment are principal issues for the project management. All personnel are responsible to ensure implementation of safe working conditions.

HSE Project representative monitors and coordinates HSE matters with project managements. Regular HSE awareness and operational training is carried out. All HSE matters are managed in accordance with corporate HSE policies, procedures and manuals and the 'Health, Safety and Environmental Plan' for the related project.

8. CONSTRUCTION

8.1.GENERAL

- (1) The project's main construction activities are summarized in the contract scope (Bill of Quantity); refer to '**Project Bill of Engineering Measurement and Evaluation**' [BEME]
- (2) General sequences of works are documented in the Construction Baseline Schedule or Project Time Schedule; refer to '**Project Construction Baseline Schedule or Time Schedule**'.

8.2.PLANT AND EQUIPMENT

- (1) Main construction equipment assigned to the project including respective performance parameters shall be documented by TOE with the 'Construction Equipment Histogram'
- (2) A complete list of project equipment, providing the following information for each equipment, is prepared and maintained by PED/ ERC
 - Fleet number
 - Equipment description
 - Manufacturer
 - BGL 2001 identification
 - Equipment new value

- (3) Equipment maintenance and repair is managed and carried out by ERC unit. Communication and coordination of project plant and equipment issues are coordinated through ERC Manager.

8.3. QUALITY ASSURANCE / QUALITY CONTROL

- (1) The following corporate quality procedures are applicable:
- CQP-440: Construction control
 - CQP-470: Control of measuring and test equipment
 - CQP-520: Control of Non-conforming Product
- (2) Project Manager is overall responsible for the implementation, maintenance and improvement of the quality management system; refer to **‘Table: 3.6-1 Key Responsibility Matrix’**.
- (3) Operations / Site Manager shall be responsible to ensure inspection and testing of works are carried out in accordance with Inspection and Test Procedures/ Plans; including respective construction records are established and countersigned. The completed and countersigned original records shall be handed over to Project QA/QC Manager. Where required in the contract, copy of records shall be submitted to the Engineer.
- (4) All equipment used to measure conformity of works shall be appropriate for the type of measurement to be carried out. The degree of accuracy shall be precise and has to be controlled and calibrated in accordance with pertinent corporate procedures.

9. PROJECT QUALITY MANAGEMENT SYSTEM

9.1. GENERAL

- (1) This section describes the various types of quality system documents, which are being established and maintained to define the practices that control project activities.
- (2) The project adopts and operates in accordance with the Corporate Policy Statements.

- (3) The project quality system documentation is consistent with JBN Plc corporate requirements. The documents that define the Project Quality System are described in **Section 9.2.** of this document.

9.2. QUALITY SYSTEM DOCUMENTATION

9.2.1. Document Types and Hierarchy

- (1) The quality system is defined by the documents described below in their hierarchical sequence.
- (2) Level 1 through Level 4 documents state requirements in relation to the quality system. Level 5 documents record results.

Table 10.2.1-1: Document Types and Hierarchy

Level / Document Type	DESCRIPTION / FUNCTION
Level 1 Quality Policy and Objectives	- The quality policy states the overall intent and principle related to quality. JBN Plc Corporate Quality Policy statement is quoted in Section 1.2 of this document. - Project quality objectives are stated in Section 1.3 of this document.
Level 2 Quality Management Plan (this document)	- Describe the structure and content of the Construction of Project quality management system. - Describes the Project organization and defines key responsibilities - Makes reference to quality procedure.
Level 3 Quality Procedures	- Describe the practices to control the work on a project or information as it passes through a process and the records to be taken and maintained. - Quality procedures define the way the processes are carried out and controlled; in respect to the process, they provide the answer to the questions: - What has to be done? - Where is it to be done? - When is it to be done? - Who is to do it? - Why do it? - What documented information is required?
Level 4 Operating Procedures	- Method Statements provide the following: - Detailed description of work methods - Required resources for specific works - Responsibilities for relevant activities - Defines requirements for conformity - Inspection and Test Procedures / Plans provide the following:

Level / Document Type	DESCRIPTION / FUNCTION
	○ Define inspection responsibilities ○ Define inspection and test methods ○ Define inspection and test frequencies ○ Defines acceptable criteria ○ Defines and provides relevant blank forms for documented information • Work Instructions: ○ Define how specific tasks are to be carried out ○ Mostly required when method statements may not be necessary • Guidelines: ○ Describe how to carry out a activity or task (e.g. Controlling Richtlinien, TACA Guide)
Level 5 Quality Records	• These are data which serve as object evidence that inspection and tests have been carried out. • They serve as proof that works conform or do not conform to requirements or set criteria

9.2.2. Documentation Issue, Distribution and Availability

- (1) The Technical Office Engineer or the assigned QA/QC Manager is responsible for controlling status and maintaining registers of project QMS documentation.
- (2) The distribution of the documents is centralized and controlled by the Technical Office Engineer or the assigned QA/QC Manager who will implement the distribution through the project DCC. Holders of controlled copies will be registered; a list of copyholders will be issued together with the document(s). A soft copy of all project QMS documentation shall be available on the project server.
- (3) Julius Berger Corporate Quality documents are available on the Julius Berger Head Office Abuja server (I:\QMS-Dokumentation) and accessible in real time. Project quality management system documents shall be available on the project server and shall also be accessible in real time.
- (4) Where access to the server is not possible, corporate quality system documents shall be distributed as hard copies or electronic copies upon request to project document control personnel.
- (5) Project Management is responsible for the preparation and maintenance of the Quality Management Plan.
- (6) From time to time, authorized amendments to this document will be made. Whenever amendments are made, the document will be reissued in its entirety.

- (7) Subcontractor/Supplier QMS Documentation shall be available on the project server.
- (8) With reference to CQP-120: Filing and Archiving, retention of project QMS documentation shall be in accordance with ‘**Table 10.2.2-2**’.

Table 10.2.2-2: Filing of Project QMS Documentation

Volume	Description	Relevant DCC Subject Code
1	Project Quality Management Plan	Q22 Manuals
2	Project Quality Procedures	Q23 Quality Procedures
3	Project Construction Method Statements	Q24.10 Operating Procedures [MS]
4	Project Inspection and Test Procedures + Plans	Q24.20 Operating Procedures [ITP]
5	Project Work Instructions	Q24.30 Operating Procedures [WI]
6	Construction Quality Records (QR)	Q30 QR–Generated under Project Quality Procedures
7	Construction Quality Records (QR)	Q31 QR–Generated under Projects Operating Procedures
8	Project Supplier QMS Documentation	Q40-Q49 Supplier QMS Documentation
9	Project Subcontractor QMS Documentation	Q50-Q59 Subcontractor Documentation
10	General Quality Records	Various

9.3.QMS MEASUREMENT, REVIEW AND IMPROVEMENT PROCESSES

9.3.1. Quality Audits

- (1) Quality audits will be carried out in accordance with corporate QMS requirements. The following Corporate Quality Procedures are applicable
- CQP-510: Internal Audits
 - CQP-511: External Audits
 - CQP-512: Product Quality Audits
- (2) Internal audit programme will be agreed between Corporate Quality Manager and Project Manager.
- (3) Programme for regular internal quality audits will be such that each main activity will be audited at least once during the project duration. The first system audit should be completed within six months following the issue of this Plan and covers all main activities during that period.

- (4) Further and additional internal audits will be scheduled if the need arises to address potential and/ or factual issues of concern.
- (5) Programme for external audits on suppliers and subcontractors, and product audits will be defined case by case.

9.3.2. Control of Non-Conforming Work

- (1) CQP-520: Control of Non-conforming product shall be applicable.
- (2) Non-conforming work should be identified by any personnel, in particular those involved in the construction, inspection and testing, and survey, including:
 - Project Manager
 - Operations / Site Manager
 - Technical Office Engineer
 - QA/QC Personnel
 - Laboratory Manager/ Engineer
 - Surveyor
- (3) All nonconforming work shall be notified to the Project Manager. The QA/QC personnel and/or Technical Office Engineer shall document the nonconformity by using the 'Non-conformance Report' [NCR] form; refer to CQP-520: Control of Non-conforming Product.
- (4) The Technical Office Engineer shall provide a copy of NCR Register to the QA/QC personnel for registration; refer to CQP-520: Control of Non-conforming Product.
- (5) The Project Manager, Operations / Site Manager and Technical Office Engineer in conjunction with the Project QA/QC Manager is responsible to follow up on the nonconformity and ensure correction and closing out without undue delay.
- (6) Complete NCR documentation shall be maintained by QA/QC Manager.

9.3.3. Quality Management System Review

- (1) Corporate Quality Procedure CQP-260: Management System Review shall be applicable.
- (2) The Project Management shall discuss/ carry out quality system review during the Project Control Meetings (Status Meeting) refer to '**Attachment 6.1-1: Region Central and North Report Control Plan**'. The results of the review will be discussed in management review meetings and the findings will be recorded.
- (3) The first review will take place within twelve (12) months following the issue of this document and every year thereafter.
- (4) The Project Manager/ Technical Office Engineer in conjunction with the Project QA/QC Manager shall prepare a review report with the contents defined by the review

agenda. The report has to provide the basic information for the system review and is distributed to participants of the review meeting, which should at a minimum include:

- Project Manager
- Commercial Manager
- Technical Office Engineer
- Operations Manager
- Project QA/QC Manager
- Laboratory Manager/ Engineer

(5) Region Central and North Management and Corporate Quality Manager shall be provided with a copy of the review report and given the opportunity to attend the review meeting.

(6) Project quality system reviews will analyse the effectiveness and efficiency of the project quality system, whether objectives have been met and search for options, in which ways the system can be improved.

(7) Project review agenda shall be fixed items on the status meeting agenda. The review agenda shall be the following:

- Review of actions from previous review
- Review and analysis of non-conformities
- Review and analysis of quality audit findings
- Review and analysis of customer complaints
- Review and analysis of audits carried out by internal and/ or third party auditors
- Report from each participant including proposals, how the efficiency/ effectiveness of the quality system could be improved.
- Review of the policy and objective

9.3.4. Quality Management System Improvement

(1) The quality system defined by this manual provides the basis and should continually be improved. Such improvements may be identified

- as results of review of non-conformance reports leading to corrective and remedial actions, or
- through the formal management reviews or through system auditing, or
- by project staff during routine work.

(2) All project staff are encouraged to participate in the quality system improvement process. Any personnel may initiate quality system improvement proposals. The formal process is defined in respective project quality procedures.

- CQP-540: Management System Maintenance and Improvements

9.3.5. Customer Satisfaction

- (1) Monitoring customer complaints is our way to measure customer satisfaction during project execution.
- (2) All customer complaints shall be responded to in writing. Action will be taken to appropriately address the issue.
- (3) For complaints relating to non-conformity of the works, non-conformance report will be raised and registered. Applicable Corporate Quality Procedure CQP-520: Control of Non-conforming Work.
- (4) Upon project completion customer feedback survey will be carried out in accordance with CQP-503: Customer Feedback.

9.4. CORPORATE QUALITY PROCEDURES

- (1) The Project implements and controls its operations in accordance with Julius Berger corporate quality system requirements and quality procedures. Reference to corporate quality procedures is in particular relevant for Region Central and North Project activities. Refer to in '**Table 10.4-1: Corporate Quality Procedures**'.

Table 10.4- 1: Corporate Quality Procedures

Doc. No.	Title
CQP-101	Management System Documentation - Development and Release
CQP-102	Document Control - Distribution of Hardcopies
CQP-103	Management System Documentation – Change Control
CQP-104	Control of External Documents
CQP-105	Correspondence and Communication
CQP-110	Control of Records
CQP-120	Filing and Archiving
CQP-140	Preparation of Quality Management Plans
CQP-210	Responsibilities and Delegated Authorities
CQP-260	Management System Review
CQP-310	Human Resources Management
CQP-401	Tendering
CQP-410	Contract Administration - Construction
CQP-430	Procurement
CQP-440	Construction Control
CQP-470	Control of Measuring and Test Equipment

Doc. No.	Title
CQP-501	Process Performance Measurement
CQP-503	Customer Feedback
CQP-510	Internal Audits
CQP-511	External Audits
CQP-512	Product Quality Audits
CQP-520	Control of Non-Conforming Product
CQP-540	MS Maintenance and Improvement
CQP-541	Corrective Action
CQP-542	Preventive Action

Table 10.4- 2: ITP's – Inspection and Test Procedures + Plans

Doc. No.	Title
ITP-200	Cast Insitu Concrete Works
ITP-220	Precast Concrete Installation
ITP-150	Site Clearance and Earthworks
ITP-230	Masonry/Brickwork
ITP-250	Building Finishing Works
ITP-300	Structural Steelworks

10. DEFINITIONS, ABBREVIATIONS

10.1. DEFINITIONS

Definitions of terms shall be according to ISO 9001: 2015

10.2. ABBREVIATIONS

The following abbreviations are standard abbreviations and descriptions to be used not only in this document, but for all other QMS documents within Region Central and North – Building Projects.

Table 11.2-1: Standard Abbreviations Region Central and North – Building Projects

Abbreviation	Description
ABF	Abuja Building and Facility

Abbreviation	Description
BU	Business Unit
BMU	Building Material Unit
CGL	Corporate Guideline
CM	Contract Manager
CON	Controlling / Controller
COM	Commercial Manager
CQM	Corporate Quality Manager
CQMan	Corporate Quality Manual
CQP	Corporate Quality Procedure
CR	Controlling Richtlinien
CYM	Commercial Yard Manager
DA	Director Administration
DC	Document Controller
DCC	Document Control Center
EBT	Earnings Before Tax
ERC	Equipment Repair Centre
FD	Financial Director
FMoT	Federal Ministry of Transport
HO-TSD	Technical Service Department – Head Office Abuja
HOA	Head Office Abuja
HSE	Health, Safety and Environmental
HSE-R	Health, Safety and Environment – Regional Representative
HSE-P	Health, Safety and Environment – Project Representative/ Inspector
HTD	Head of Technical Department
IntSt	International Staff
IT	Information Technology
ITP	Inspection and Test Procedure
ITPIn	Inspection and Test Plan
JBH	Julius Berger International GmbH
JBN	Julius Berger Nigeria Plc
JSt	Junior Staff
LAB	Laboratory Manager/ Engineer
MD	Managing Director

Quality Management Plan

Abbreviation	Description
MKSIV	Quantity & cost comparison (Mengen-Kosten-Soll-Ist-Vergleich)
MoM	Minutes of Meeting / Results
MS	Method Statement
NCR	Non-Conformance Report
NCRReg	Non-Conformance Register
OM	Operations Manager
PED	Plant and Equipment Department
PGS	Piling and Geotechnical Specialist
PM	Project Manager
PQM	Project QA/QC Manager
PTN	Primetech Design and Engineering Nigeria Ltd.
QA/ QC	Quality Assurance/ Quality Control
QMPln	Quality Management Plan
QM-R	Quality Manager - Region
QMS	Quality Management System
QS	Quantity Surveyor
RCN	Region Central and North
RCM	Regional Commercial Manager
RM	Regional Management
RTM	Regional Technical Manager
S / SC	Supplier / Subcontractor
SEC	Security Manager / Officer
SM	Site Manager
SSt	Senior Staff
SU	Service Unit
SUR	Surveyor
SV	Supervisor for (e.g. Earthmoving, Concrete etc.)
TACA	Tender and Contract Administration data base
TD-RCN	Technical Department - RCN
TM	Technical Manager
TRM	Technical Regional Manager
TOE	Technical Office Engineer
TOE -R	Technical Office Engineer - Region

Abbreviation	Description
TSD	Technical Service Department
TYM	Technical Yard Manager
XYZ	Abbreviation of Project Name

11. REFERENCES

11.1. CONTRACT DOCUMENT

- (1) Contract Agreement including letter of award, drawings and others

11.2. JBN PLC CORPORATE QMS DOCUMENTATION

- (1) Corporate Quality Policy
- (2) Corporate Quality Manual
- (3) Corporate Quality Procedures
- (4) Corporate Operating Procedures
- (5) Corporate Internal Standards, References and Guidelines

11.3. REGION CENTRAL AND NORTH QMS DOCUMENTATION

- (1) Region Central and North Quality Manual

11.4. OTHERS

- (1) JBN Plc Manual 'Controlling Richtlinien'
- (2) ISO 9001:2015 Quality Management Systems Requirement

12. ATTACHMENTS

- (1) Attachment 1.3-1: Performance Indicator Deployment Form
- (2) Attachment 3.4.2-1: Project Organization Chart
- (3) Attachment 3.5-1: Project Personnel Contact
- (4) Attachment 3.6.4-1: Schedule of Delegated Authority
- (5) Attachment 6.1-1: Region Central and North Report Control Plan

13. TABLES AND FIGURES OVERVIEW

- Table 1.3-1: Quality Objectives
- Table 3.1-1: Client's Personnel Contacts
- Table 3.6-1: Key Responsibility Matrix
- Table 10.2.1-1: Document Type and Hierarchy
- Table 10.2.2-2: Filing of QMS Documentation
- Table 10.4-1: Corporate Quality Procedures
- Table 11.2-1: Standard Abbreviations

Attachment 1.3-1: RCN Performance Indicator Deployment Form

Category	Objectives		
	Description	Performance Measure / Indicator	Measurement
CUSTOMER	Project acquisition to Enhance contract award opportunities while preventing intolerable and uncontrollable risks	Full assessment of risk and feasibility of project based on tender requirements	Complete and Signed PIS (Project Information Sheet) to commence tender preparation process.
		Indicator C1: Complete and signed PIS before start of tender process.	Target value: 80 %
	Consistently meeting customer requirements	Contract award on 100% of projects versus tender submitted	Actual percentage of projects awarded as reported in TACA (Tender and Contract Administration database)
		Indicator C2: Number of awarded projects to number of tenders submitted.	Target value: 45 %
		Indicator C2b: Project value of awarded projects to project value of tenders submitted	Target value: 40 %
		Project completion with no outstanding issues pending. Outstanding issues mean zero major nonconformities and outstanding contractual issues at end of maintenance period.	Information from Project Manager, as recorded in TACA database.
		Indicator C3: number of projects with outstanding completion certificates	Target value: <10 %
	Service quality to be best value in the industry	Customer feedback as received through correspondence, interviews and meetings	Customer Feedback Form at minimum from all closed projects
		Indicator C4: Grade according Customer Feedback Form	Target value: Customer feedback on all important project performance aspects at least grade 4

Attachment 1.3-1: RCN Performance Indicator Deployment Form

Category	Objectives		
	Description	Performance Measure / Indicator	Measurement
QUALITY	Full conformity of necessary QM documents from commencement of work	Project QM plan including TOW register, available at "Kick off meeting" for each project	Issue of draft project QM Plan and report to QM-R prior to "Kick off meetings". Issue/Update of "Project QMPlan" as scheduled by QM-R
		Indicator Q1: Number of projects without valid QM Plan	Target value: 0% (zero)
	Full conformity of design documents at commencement of work	Complete design information available and correctness verified in accordance with time schedule at commencement of each work section GREEN = in time ORANGE = feasible RED = critical, will cause delay	Monitoring by PM and recording in MoM of project steering and/or status meetings and in project "Monthly Report". Target value: all projects GREEN
		Indicator Q2: Working drawings available for pertinent work section before commencement of works	Target value: 100 % of all projects
	Clearing of non-conformities as soon as practicable by approved resolution	Non-conformances closed within a reasonable period	Information from NC Register per project
		Indicator Q3: Percentage (%) of closed NCR's within; 30 days 60 days 90 days	Target value: 50 % for 30 days; 70 % for 60 days; 90 % for 90 days
	No outstanding non-conformities	All non-conformance reports closed out	Information from NC Register statistics
		Indicator Q4: Percentage (%) of closed NCR's at project completion	Target value: 100%

Attachment 1.3-1: RCN Performance Indicator Deployment Form

Category	Objectives		
	Description	Performance Measure / Indicator	Measurement
TIME	Progress of works in accordance to agreed performance plan	Actual against planned progress	Information from monthly "Performance Overview Region Central and North"
		Indicator T1: Percentage (%) of actual progress against planned progress	Target value: 95 % in time
FINANCIAL	Cash flow according plan	Actual versus planned cash flow from financial reporting	Financial Records from Regional Management and/or Project "Brief Report"
		Indicator F1: Actual cash flow against planned cash flow.	Target value: Positive cash flow, F >0
	EBT as planned	Profit resulting from project execution exceeding defined profit expectations.	Information from "Brief Report" and Performance Reports. Potential profit to the end against profit planned by contract award.
		Indicator F2: Potential profit against planned profit (controlling). EBT (IST) > EBT (AUF)	Target value: > 100% (Actual value >= planned value)
		Profit resulting from project execution exceeding defined profit expectations	Actual and forecasted profit as determined in balance sheets against planned profit by contract award.
		Indicator F3: Forecasted profit to end against planned profit within Region Central & North / Project (commercial) EBT (IST) > EBT (AUF)	Target value: > 100 % (Actual value >= planned value)
EMPLOYEE RELATIONS	Continual development of professional skill	Plan and carry out training program	Information from the for trainings responsible person within HO Abuja
		Indicator E1: Number of trainings carried out for key personnel staff	Target value: Actual Number of trainings carried out

NSIA- ORGANIZATION CHART



NIGERIA SOVEREIGN INVESTMENT AUTHORITY

PROJECT MANAGER		
t.b.d		
PM	IntSt	1

COMMERCIAL MANAGER		
t.b.d		
COM	IntSt	0.5

PROJECT CO-ORDINATOR		
t.b.d		
COR	?	0.3

PROJECT QA/QC		
t.b.d		
PQM	SSt	1

OPERATION / SITE MANAGER		
t.b.d		
OM	IntSt	0.1

HSE		
t.b.d		
HSE	SSt	1

SECRETARY/DCC		
t.b.d		
SEC	SSt	1

OPERATIONS

NOT UNDER PROJECT

TECHNICAL OFFICE		
t.b.d		
TID	IntSt	1
TECHNICAL OFFICE ENGINEER		
t.b.d		
TOE	IntSt	0.5
QUANTITY SURVEYOR		
t.b.d		
QS	SSt	0.5
QUANTITY SURVEYOR		
t.b.d		
QS	JSt	1
QUANTITY SURVEYOR		
t.b.d		
QS	JSt	1
SURVEYOR		
SURVEYING DEPART.		
t.b.d		
SUR		
PROJECT STORE		
t.b.d		

INFRASTRUCTURE / EARTHWORKS		
SV INFRASTRUCTURE		
t.b.d		
	SSt	
POSITION JBN SUBCON		
INFRA	?	
TOTAL JSt		0

STRUCTURAL		
SV STRUCTURAL		
t.b.d		
SV	IntSt	1
SV STRUCTURAL		
t.b.d		
SV	SSt	1
POSITION JBN SUBCON		
STRUCTURAL	?	
ROOFING	?	
TOTAL JSt		0

FINISHING WORKS		
SV FINISHING		
t.b.d		
SV	IntSt	1
SV TILES & STONE		
t.b.d		
SV	IntSt	1
SV FINISHING		
t.b.d		
SV		
SV PAINTING / FINISHING		
t.b.d		
	SUB	
SV FURNITURE		
t.b.d		
	SUB	
SV ALUMINIUM WORKS		
t.b.d		
	SUB	
POSITION JBN SUBCON		
FINISHING	0	0
TILES & STONE	0	0
PAINTING	0	0
TOTAL JSt		0

MECHANICAL / ELECTRICAL		
ELECTRICAL		
t.b.d		
SV	IntSt	0.5
PLUMBING& HVAC		
t.b.d		
ME	IntSt	0.5
HVAC		
t.b.d		
	SUB	
Power Switches / Cabling		
t.b.d		
	SUB	
Power Generators		
t.b.d		
	SUB	
MEDIA		
t.b.d		
	SUB	
POSITION JBN SUBCON		
ELECTRICAL		0
PLUMBING		0
TOTAL JSt		0

CONTRACT MANAGER		
t.b.d		
CM		
PROJECT CONTROLLER		
t.b.d		
CON		
LABORATORY		
t.b.d		
LAB		
SECURITY		
t.b.d		
SEC		

LEGEND:

SUB	Suncontractor / Affiliate
IntSt	INTERNATIONAL STAFF
SSt	SENIOR STAFF
JSt	JUNIOR STAFF
	NOT UNDER PROJECT
(.....)	DOUBLE DESIGNATION
t.b.d	TO BE DETERMINED

Attachment 3.5-1: Project Personnel Contacts

Name	Position	Email	Ext.	Mobile Phone +234(0)
t.b.d	Project Manager			
t.b.d	Commercial Manager			
t.b.d	Project Co-Ordinator			
t.b.d	Operation Manager			
t.b.d	TID			
t.b.d	TOE			
t.b.d	HSE			
t.b.d	QA/QC			
t.b.d	Secretary/DCC			
t.b.d	Quantity Surveyor			
t.b.d	Sv Infrastructure			
t.b.d	Sv Structural			
t.b.d	Sv Structural			
t.b.d	Sv Tiles & Stone			
t.b.d	Electrical, Plumbing & HVAC			

Schedule of Delegated Authorities	Executive Mgmt.				Board Committees				Board	Legal	BU/SU Management(s).				Project(s)	
Key:	MD	ED, FIN	CCD	DA	RAMC	BAC	NGC	REMCO	BoD	LGL	TM	CM	TOM	CA	PM-T	PM-C
A1 requires A2 countersignature and vice versa A: no countersignature required A*: Approvals by Shareholders (usually based on specific conditions) A**: Approvals by the Board based on special condition(s) C: Consult I: Initiate Inf: Information R: Review & comment / release prior to submission R*: Recommend P: Prepare documentation V: Vetting Responsibility Abbreviations not defined in Column headers: CCO: Chief Compliance Officer RPT: Related Party Transactions HR: Human Resource Department FIN: Finance Department AIT: Accounts, Insurance, Taxes Department	Managing Director	Executive Director, Finance	Director Corporate Development	Director Administration (DA)	Risk & Asset Management Committee	Board Audit Committee	Nominations and Governance Committee	Remuneration Committee	Board of Directors	Head of JBN Legal Department	BU/SU Manager(s) TECHNICAL	BU/SU Manager(s) COMMERCIAL	BU/SU Technical Office Manager(s)	BU/SU Contracts Administrator	Project Manager TECHNICAL	Project Manager COMMERCIAL
Tender & Contract Administration																
Signing of Project Information Sheet (PI Sheet)																
below 10 bn NGN											A1	A2	P R	R		
10 to 15 bn NGN	A1	A2	A2	A2							R	R	P R			
above 15 bn NGN	A2				A1						R	R	P R			
Submission of Tenders and Budget Estimates																
0 to 10 bn NGN											A1	A2	R	R		
above 10 bn NGN	A1	A1	A1	A1							A2	A2	R	R		
Signing a Letter of Acceptance																
0 to 10 bn NGN											A1	A2	R	P		
above 10 bn NGN	A1	A1	A1	A2							A2	A2	R	P		
Approval of Contract Agreements																
0 to 10 bn NGN											A1	A2	R	P R		
above 10 bn NGN	A1	A1	A1	A2							R	R	R	P R		
All Contract Agreements required to be under company seal all amounts	A1	A1	A2	A2							R	R	R	P R		
All Contract Agreements - RPT Related	I	I				R*			A		P R	P R		P R		
Claims and Variations																
Mandatory Notifications														P	A1	A2
Change to contract sum 0 to 5 bn NGN											R	R	R	P R	A1	A2
Change to contract sum 5 to 10 bn NGN											A1	A1	R	P R	A2	A2
Change to contract sum above 10 bn NGN	A1	A1	A1								A2	A2	R	P R	P R	P R
Guarantees and Bonds																
Request to Issue	A1	A2									A1	A2				
Potentially Contentious Action																
Suspension / Termination of Contract	A1	A2	A2	A2							R	R		P	P R	P R
Notify Mediation	A1	A2	A2	A2							R	R		P	P R	P R
Notify Arbitration	A1	A2	A2	A2							R	R		P	P R	P R
Court cases: Information about new cases / selection of lawyer	A2	A1	A2	A2						P R						
Legal																
Material Prosecution Initiated by Company		A1								A2						
Engagement of external solicitors		A1								A2		A1				
Waivers / Settlements / Indulgences / compromises related to litigation up to 250 mio NGN	A2	A1	A2	A2					Inf.	V	A2	A1				
Waivers / Settlements / Indulgences / compromises related to litigation above 250 mio NGN	I	I				R*			A	V						
Investments; Properties; Leases																
Investment Request - Construction Equipment, Manufacturing Plant and Machinery + Equipment Disposal																
Fully depreciated over project life all amounts	A2	A1									P R	P R				
Construction equipment below 2.25 bn NGN	A2	A1			Inf.				Inf.		P R	P R				
Construction equipment above 2.25 bn NGN	R*	R*			A				Inf.		P R	P R				
Manufacturing plant and machinery below 2.25 bn NGN	A2	A1							Inf.		P R	P R				
Manufacturing plant and machinery above 2.25 bn NGN	R*	R*			R*				A		P R	P R				
Disposal of obsolete Equipment, Plant and Machinery - Ceiling Amount for FY	P R	P R			R*				A		I	I				
Disposal of obsolete Equipment, Plant and Machinery	A1	A1									A2	A2				
Investment Request - Real Estate																
Erection, Renovation, and Rehabilitation below 2.25 bn NGN	A2	A1			Inf.				Inf.							
Erection, Renovation, and Rehabilitation above 2.25 bn NGN	I	I			R*				A		P R	P R				
Acquisitions and Disposals below 1.5 bn NGN	I	I			A											
Acquisitions and Disposals up to, and above 1.5 bn NGN	I	I			R*				A							
Asset Purchase																
Asset Purchase below 50 mio NGN	A1	A1	A1								A2	A2	P R	P R		
Asset Purchase above 50 mio NGN	A1	A2									R	R	P R	P R		

Schedule of Delegated Authorities					Executive Mgmt.				Board Committees				Board	Legal	BU/SU Management(s).				Project(s)	
Key: A1 requires A2 countersignature and vice versa A: no countersignature required A*: Approvals by Shareholders (usually based on specific conditions) A**: Approvals by the Board based on special condition(s) C: Consult I: Initiate Inf: Information R: Review & comment / release prior to submission R*: Recommend P: Prepare documentation V: Vetting Responsibility Abbreviations not defined in Column headers: CCO: Chief Compliance Officer																				

Schedule of Delegated Authorities					Executive Mgmt				Board Committees				Board	Legal	BU/SU Management(s)				Project(s)		
					MD	ED, FIN	DCD	DA	RAMC	BAC	NGC	REMO	BoD	LGL	TM	CM	TOM	CA	PM-T	PM-C	
Key: A1 requires A2 countersignature and vice versa A: no countersignature required A*: Approvals by Shareholders (usually based on specific conditions) A**: Approvals by the Board based on special condition(s) C: Consult I: Initiate Inf: Information R: Review & comment / release prior to submission R*: Recommend P: Prepare documentation V: Vetting Responsibility Abbreviations not defined in Column headers: CCO: Chief Compliance Officer HR: Human Resource Department FIN: Finance Department AIT: Accounts, Insurance, Taxes Department RPT: Related Party Transactions					Managing Director	Executive Director, Finance	Director Corporate Development	Director Administration (DA)	Risk & Asset Management Committee	Board Audit Committee	Nominations and Governance Committee	Remuneration Committee	Board of Directors	Head of JBN Legal Department	BUSU Manager(s) TECHNICAL	BUSU Manager(s) COMMERCIAL	BUSU Technical Office Manager(s)	BUSU Contracts Administrator	Project Manager TECHNICAL	Project Manager COMMERCIAL	
Personnel: Senior Staff																					
Conditions of Service - Negotiations and Adjustments					A1	A1	A2	A2				Inf									
Recruitment (Operations)															A1	A1			A2	A2	
Recruitment (Corporate Departments)					A1	A1	A1	A1							A2	A2					
Personnel Transfer															A1	A1			A2	A2	
Redundancy															A1	A2			P	P	
Promotion to Management Staff					I	I	I	I			R*		A								
Promotion within Senior Staff Levels (D2 to A1)					A1	A1	A2	A2							R*	R*			R*	R*	
Salary adjustments					A1	A1	A2	A2							R*	R*			R*	R*	
Discipline - Query/Warning letter								A1							R*	R*	A2 = HR		R*	R*	
Personnel Management Staff																					
Recruitment, promotion, discipline, and removal					I A	I A	I	I													
Recruitment, promotion, discipline, and removal (Head of Internal Audit + Company Secretary)					I R*	I R*	I R*	I R*		R*			A								
Remuneration Framework - Negotiations and Adjustments					I	I	I	I				I R*	A								
Banks, Insurance																					
Opening and/or Closing of Bank Accounts (Site and Corporate), including signatories to accounts						I							A			I					
Authorise Insurance Claim Release															A1	A1			A2	A2	
Administration																					
Administration																					
Business Cards					A	A															
Mobile Phone (post paid contract)						A															
Local business trips (airlines)															A	A			PJR	PJR	
Local business trips (Charter Flights)					A1	A1	A2	A2							A2	A2					
Charter Flights for Medical Emergencies					A = OM Julius Berger Medical Services																
Restricted Area Travel Application (RATA)					A1	A1	A1	A1							A2	A2					
International business trips					A1	A1	A1	A1							A2	A2					
Internal charges																					
Change of internal charges					A1	A1										A2 = Head of Controlling					
Introduction of new charges					A1	A1										A2 = Head of Controlling					
SAP software, Internet, IT Requisitions, Donations																					
SAP: Request for new PSP																A2		A1 = Head of AIT			
SAP: Request for new User																A2		A1 = Head of AIT			
Internet connection: Request for approval					A2	A1	A2	A2							A2	A2					
Approval of IT Requisitions															A	A			A	A	
Donations: Request for approval															A2	A2		A1 = CCO			
Schedule of Delegated Authority, End																					

Note 1: All agreements to support approvals if required to be under seal shall go to the executive management for execution

Note 2: This document shall be read and used together with the "Executive Management Schedule of Responsibilities"

Note 3: JB Group Executable Subcontracts refer to subcontract works, services, and processes which can be provided/executed within the JBN Group (by any of the group's subsidiaries or BUSU)

Authorised for Implementation:

Name

Signature

Managing Director Engr. Dr. Peer Lubasch

Executive Director, Finance Mr. Christian Hausemann

Attachment 6.1-1: RCN Report Control Plan

RCN Overview 2026

Status: 27/02/2026

S/N	DESCRIPTION	WHO		WHEN	to whom?	DCC Subject Code	1st QUARTER			2nd QUARTER			3rd QUARTER			4th QUARTER			REMARKS
		Chairman/ Responsible	Participants / Author	Delivery Date			1	2	3	4	5	6	7	8	9	10	11	12	
1	MEETINGS																		
1.1	Control Meetings (Status Meeting)	PM	COM, RTM, TM, other(s) as invited:	see C00- General/Controlling Plan		C90 relating in each Project													recorded by PM/TOE
1.2	Facility Management Meetings	PM	COM, RTM, TM, other(s) as invited:	monthly		C90 relating in each Project													recorded by PM/TOE
1.3	RCN Management Meetings	RTM	RTM, RCM, HTD other(s) as invited:	monthly		C90 relating in each Project													recorded by RTM/HTD/TM/
1.4	RCN Commercial Management Meetings	RCM	RCM, COM other(s) as invited:	quarterly		C90 relating in each Project	1			1			1			1			recorded by RCM/COM
1.5	QA/QC, HSE, PM Meetings	RTM	TM, PM, HSE, QA/QC	monthly															recorded by QA/QC
1.6	Union Meetings	RCM	Union members, other(s) as invited:	to be defined															recorded by union secretary
2	REGION CENTRAL AND NORTH REPORTS																		
2.1	MD-Reports	RTM	HTD/TM (with input from all)	quarterly to MD office	MD office	R04			1			1				1		1	
2.2	Organisation Chart	RTM	HTD/TM/TOE	if changes or as required	DO	N01													
2.2.2	Performance Overview Region/Projects	HTD, TM	TOE	6 th day of the following month to LC	cc: LC, TOE	R09	1	1	1	1	1	1	1	1	1	1	1	1	
2.2.3	Schedule Performance of 3 Following Years	RTM	HTD/TM	beginning of the year	LC	C30													
2.3	Equipment Asset List (RCN Base Value)	HTD, TM	TOE	as of last day of the month	RCM	O07/R99	1	1	1	1	1	1	1	1	1	1	1	1	from Julian Equipm. Program Report No. Analysis V.2 / RCN Base Value
2.4	Leave Planning	RTM / RCM	RCN Secr.	1 st month of the year, to be updated as required	RTM	N11.2	1												Region Central and North Mngmnt
3	PROJECT REPORTS & YARD RECORDS																		
3.1	Monthly Report (incl. Attachments)	PM	TOE	6 th day of the following month	RTM/RCM	R02	1	1	1	1	1	1	1	1	1	1	1	1	
3.2	Performance Report	PM	TOE/COM	4 th day of the following month to RCN / 6th to HO-LC	TOE	R09	1	1	1	1	1	1	1	1	1	1	1	1	

RCN Overview 2026

Status: 27/02/2026

S/N	DESCRIPTION	WHO		WHEN	to whom?	DCC Subject Code	1st QUARTER			2nd QUARTER			3rd QUARTER			4th QUARTER			REMARKS
		Chairman/ Responsible	Participants / Author	Delivery Date			1	2	3	4	5	6	7	8	9	10	11	12	
3.3	Yard Records	TYM		10 th day of the following month	TOE	R02	1	1	1	1	1	1	1	1	1	1	1	1	
3.4	other reports/records acc. Project "Control Plan"																		
4	HUMAN RESOURCES																		
4.1	Questionnaire for the personal development meeting - confidential	RTM, RCM, HTD, TM	PM and all Participants	once per year/ first quarter	PERS	N -confidential file			1										
4.2	Personnel: planning; forecast (Expat Einsatzplan)	RTM	RTM/TOE	approx. every 2nd month		N -confidential file		1		1		1		1		1		1	
5	WORK ESTIMATE																		
5.1	Adjustment of unit rate Yards	RTM,RCM	HTD, TM, TOE, Estimator	on demand	LC	C10 / C11													
5.2	Preparation of work Estimate (Aus 0)	PM	TOE, Estimator	start of Project	RTM,RCM, LC, MD	C02													
5.3	Updating of work Estimate (Aus 1, 2, 3...)	PM	TOE, Estimator	as required	RTM,RCM, LC, MD	C02/C03													
6	TENDER & CONTRACT ADMINISTRATION																		
6.1	TACA (Tender and Contract Administration) constantly updating	HTD, TM, (TOE)	assigned users	constantly	various	various	1	1	1	1	1	1	1	1	1	1	1	1	
6.2	Bi-Weekly-Status Report (TACA)	RTM	HTD, TM, TOE	fridays 12 o'clock, every even calendar week	HOA	R11	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	2x	
7	MATERIAL QUANTITY FORECAST & CONTROL																		
7.1	Material Demand forecast	HTD, TM	TOE	2 - 4 times per year	RCN & Project Mgmnt, BMU	J00													
7.2	Overview, stock Iron bending	HTD, TM	TYM	monthly	LC/ Project + RCN Mgmnt	J10	1	1	1	1	1	1	1	1	1	1	1	1	
7.3	Overview, stock Formwork	HTD, TM	TYM	February & August	LC/ Project + RCN Mgmnt	J10		1						1					
7.4	Reinforcement Order (from LC)	HTD, TM, TOE	TOE, LC	as requested by LC as required	LC/ Project Mgmnt	J10													
7.5	Fuel Statistics (Report 201, 202)	RCM	TOE	monthly, after closing fuel accounts	to COMs of Cost Centers	R42	1	1	1	1	1	1	1	1	1	1	1	1	Julian Equipment Progra; respond latest after 6wkw
8	HSE																		
8.1	HSE Monthly Reports	HSE-RCN	HSE-P	monthly	CHSE	S14	1	1	1	1	1	1	1	1	1	1	1	1	
8.2	HSE Quarterly Inspection / Audits	HSE-RCN	HSE-P	quarterly	CHSE	S16			1			1			1			1	
9	QM																		

RCN Overview 2026

Status: 27/02/2026

S/N	DESCRIPTION	WHO		WHEN	to whom?	DCC Subject Code	1st QUARTER			2nd QUARTER			3rd QUARTER			4th QUARTER			REMARKS
		Chairman/ Responsible	Participants / Author	Delivery Date			1	2	3	4	5	6	7	8	9	10	11	12	
9.1	QM Surveillance Audit (extern) RCN	CQM/ Extern. Auditor	RTM/RCM; HTD/TM/TOE; QM	once per Year	CQM	Q81		2.-5. Febr											
9.2	QMS Review (Report + Meeting) <u>all</u> Projects	PM	(see 1.2)	see C00- General/ Controlling Plan		C90 relating in each Project				1									on Project level
9.3	QMS Review (Report + Meeting) Region Central and North - Mngmnt.	RTM	RTM/RCM; HTD/ TM/ TOE; QM-R	once per Year beginning of June	CQM	Q81						1							
9.4	RCN QM SUMMARY REPORT - QM Plans Implementation Status - QM System Reviews - Status Implementation of Process Performance Measurement - Status Customer Feedbacks - Internal Audits (status CAR, OBS) - Overview NC - causes & costs, not closed;	QM-R	QM-P, QA/QC's	quarterly; 4th day of the following month	RTM, HTD, (CQM)	Q81			1			1			1			1	maintain permanent
10	SECURITY																		
	(to be defined)																		
11	Abbreviations																		
	see QMPIn RCN Ch 10.2	HTD	QM-R			Q72													

Quality Management System Documentation

Volume 3

CORPORATE QUALITY PROCEDURE

CQP-440

CONSTRUCTION CONTROL

Where this page exhibits in red ink the words “Controlled Copy” this means:

- 1) Distribution is centralised - in this case from the Corporate Quality Manager.
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DOCUMENT REVIEW AND APPROVAL THIS ISSUE									
1.0	04.07.13	Issue for use	04.07.13	CQM	4.7.13	TSD	4/7/13	Def	
REV.	DATE	DESCRIPTION	Date	Sign.	Date	Sign.	Date	Sign.	
			PREPARED		REVIEWED		APPROVED		

CQP- 440: Construction Control

DOCUMENT REVISION HISTORY

S/N	REV.	DESCRIPTION	PREPARED BY / DATE	REVIEWED BY / DATE	APPROVED BY / DATE
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ISSUE 1

1	0.1	General corporate review	CQM/ 31.08.05	--	--
2	0.2	Final review	CQM/ 23.03.07	TSD/ 19.04.07	--
3	1.0	Issue for use	CQM/ 20.04.07	TSD/ 20.04.07	MD/ 23.04.07

ISSUE 2

1	2.1	<i>Draft for final review</i> - Objectives amended - Requirements and form for quality status reporting included - Minor text corrections - Application of new corporate design - Revised document numbering format - Def. 'Hold Point Inspection' amended - Flowchart FC 5.1-1: HSE Manager added - Sect. 5.2.2 (1) (iv) amended	CQM/15.06.13	Div.QM; CHSEM;TSD/04.07.13	--
2	2.0	Issue for use	CQM/04.07.13	TSD/04.07.13	DO/04.07.13

TABLE OF CONTENTS

Cover Sheet	1
Document Revision History	2
Table of Contents	3
1 POLICY, OBJECTIVE AND PURPOSE	4
1.1 Policy	4
1.2 Process Objectives	4
1.3 Purpose	4
2 SCOPE	4
3 DEFINITIONS, ABBREVIATIONS	5
3.1 Definitions	5
3.2 Abbreviations	6
4 RESPONSIBILITIES	6
5 PROCEDURES	6
5.1 General	6
5.2 Construction Method Statements	11
5.2.1 General	11
5.2.2 Requirements	11
5.2.3 Method Statement Preparation	12
5.3 Inspection and Test Procedures and Plans	18
5.3.1 General	18
5.3.2 Inspection and Test Procedure Preparation	18
5.4 Validation	21
5.5 Materials	21
5.5.1 General	21
5.5.2 Material Approval Process	23
5.6 Quality status reporting	25
6 DOCUMENTS, QUALITY RECORDS	25
7 REFERENCES	26
7.1 Quality Management System Documentation	26
7.1.1 Manuals, Plans	26
7.1.2 Corporate Quality Procedures	26
7.1.3 Operating Procedures	26
7.2 Others	26
8 FORMS	26
9 ATTACHMENTS	27

1 POLICY, OBJECTIVE AND PURPOSE

1.1 POLICY

Construction is our main employment and prominently defines our business purpose and objectives.

Construction control as a systematic process is the key to consistently deliver quality products and services. To meet its objective, construction control is to entail thorough and competent planning, execution, supervision and control of construction activities, inspection and testing, and confirmation that specified requirements have been fulfilled.

1.2 PROCESS OBJECTIVES

OBJECTIVE	PERFORMANCE MEASURE	MEASUREMENT
<i>Thorough and comprehensive planning of works prior to commencing any construction activity</i>	<i>Prior to commencing any construction activity all requirements defined, work methods and inspection and testing requirements completely defined and communicated</i>	<i>Number of method statements and inspection and test plans actually completed against number that ought to be completed</i>
<i>Consistently deliver works that fulfill requirements for quality</i>	<i>Conformity of works</i>	<i>Works' conformity, verified, certified and signed off</i>
<i>Timely delivery of works</i>	<i>Delivery of works to internal and external customers within agreed time</i>	<i>Actual vs. planned delivery time</i>

1.3 PURPOSE

The purpose of this procedure is to set out the process and define responsibilities for planning, controlling, validating, monitoring and verifying construction activities, and quality status reporting, to ensure conformity of all works with specified requirements is achieved and adequately documented.

The document supports JBN PLC's quality planning and quality control policies with respect to construction.

2 SCOPE

(1) The procedure shall be applicable to all construction activities carried out by JBN PLC, including those for permanent and temporary works and shall apply to site and off-site construction works.

(2) The procedure shall be applicable to activities carried out by suppliers and subcontractors to the extent necessary to ensure quality objectives are achieved. The extent of control to be exercised shall be determined based on suppliers' and subcontractors' capability to deliver products and services in conformity with requirements.

3 DEFINITIONS, ABBREVIATIONS

3.1 DEFINITIONS

Work(s)

Is the work to be carried out in accordance with specified requirements and /or the result thereof.

Construction Control

Are the activities and methods planned and implemented to control the construction process to ensure conformity of Works and to prevent non-conformities.

Verification

Is the confirmation through provision of objective evidence that specified requirements have been fulfilled.

Validation

Is the confirmation and documentation thereof that the requirements for a specific intended use or application have been fulfilled.

Lot Types

Are separate operations or sections of Works, in this document also called 'Type of Works'.

Lot of Work

Is a specific quantity of work of a particular 'Type of Work' of which the inspection and/or testing regime is representative and which is subjected to an acceptance decision. The specific quantity, i.e.: the 'size' of such lot is defined by Lot Boundaries.

Hold Point Inspection

Is a point in the production / inspection cycle where no work must proceed until inspection has taken place by personnel authorized to confirm acceptance as defined in Inspection and Test Procedures.

Note: Notification arrangements shall be agreed in order to allow all parties to plan their work and thus ensure smooth flow of work.

Witness Point Inspection

Is a point in the production / inspection cycle where the personnel assigned to carry out inspection as per Inspection and Test Procedure may exercise the

option to attend and witness the activity. The respective personnel need to be notified to be able to exercise that option.

Surveillance Inspection

Describes the monitoring activities, where the personnel assigned to do monitoring may be at the stage of progress or not. No notification shall be required.

3.2 ABBREVIATIONS

CQM	Corporate Quality Manager
BU	Business Unit
SU	Service Unit
CQP	Corporate Quality Procedure
MS	Method Statement
ITP	Inspection and Test Procedure
HSE	Health, Safety and Environment
CSHEM	Corporate HSE Manager

4 RESPONSIBILITIES

- (1) JBN PLC Management shall introduce the procedure
- (2) Technical BU Managers shall be responsible for the implementation of the procedure and shall ensure that all personnel assigned responsibility for managing and supervising construction activities are inducted and acquainted with the requirements defined herein.
- (3) Project Managers shall be responsible that the processes defined in this procedure are implemented accordingly on their projects and project specific requirements are defined and documented.
- (4) The Corporate Quality Manager shall be responsible to ensure periodic internal quality audits are carried out to verify implementation and conformity of actual construction control activities with the requirements defined in this procedure.
- (5) Detailed responsibilities are defined in Section 5

5 PROCEDURES

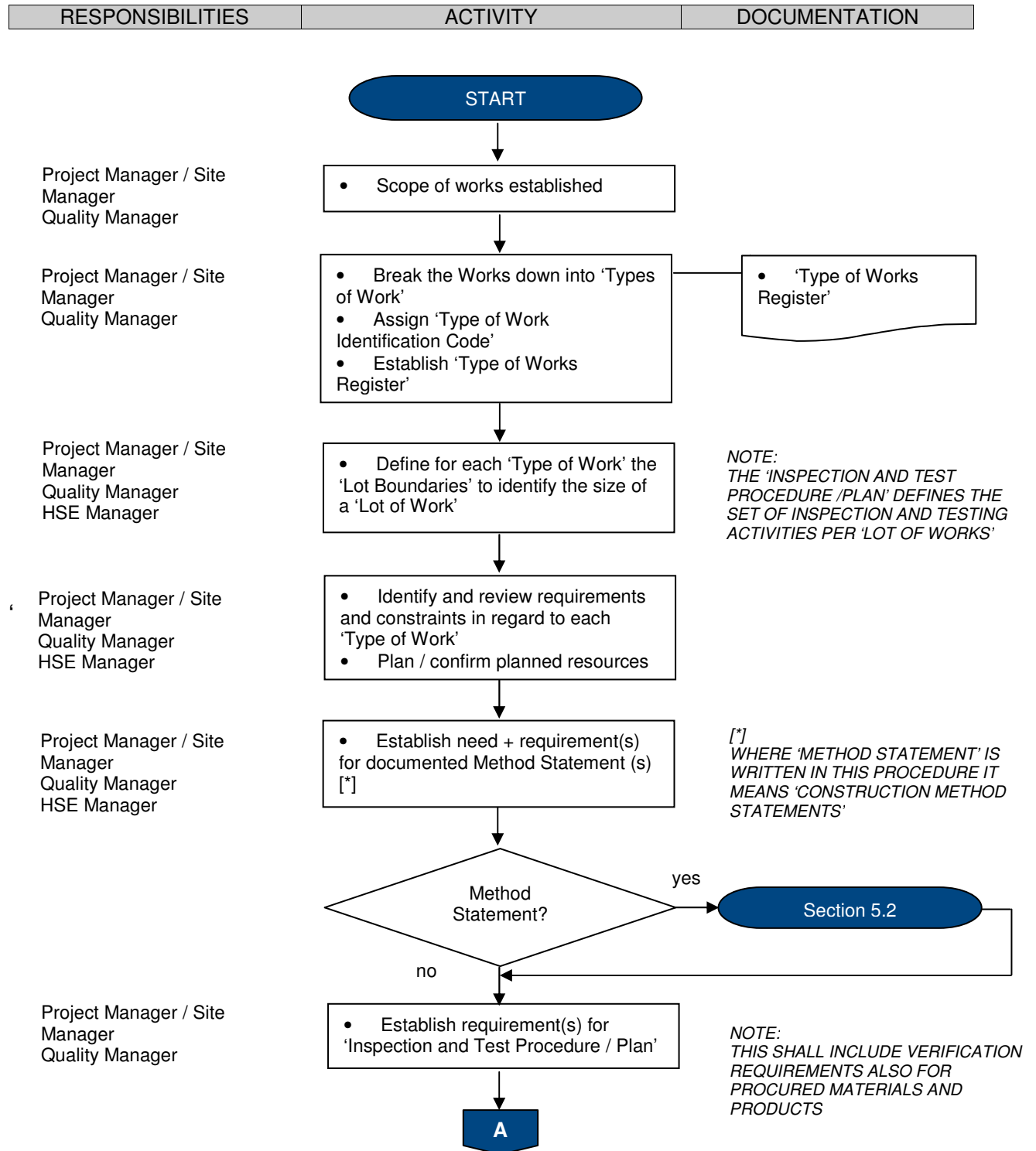
5.1 GENERAL

- (1) Construction control activities shall include
 - (i) Planning of work methods and resources needed to carry out the works to ensure conformity with requirements

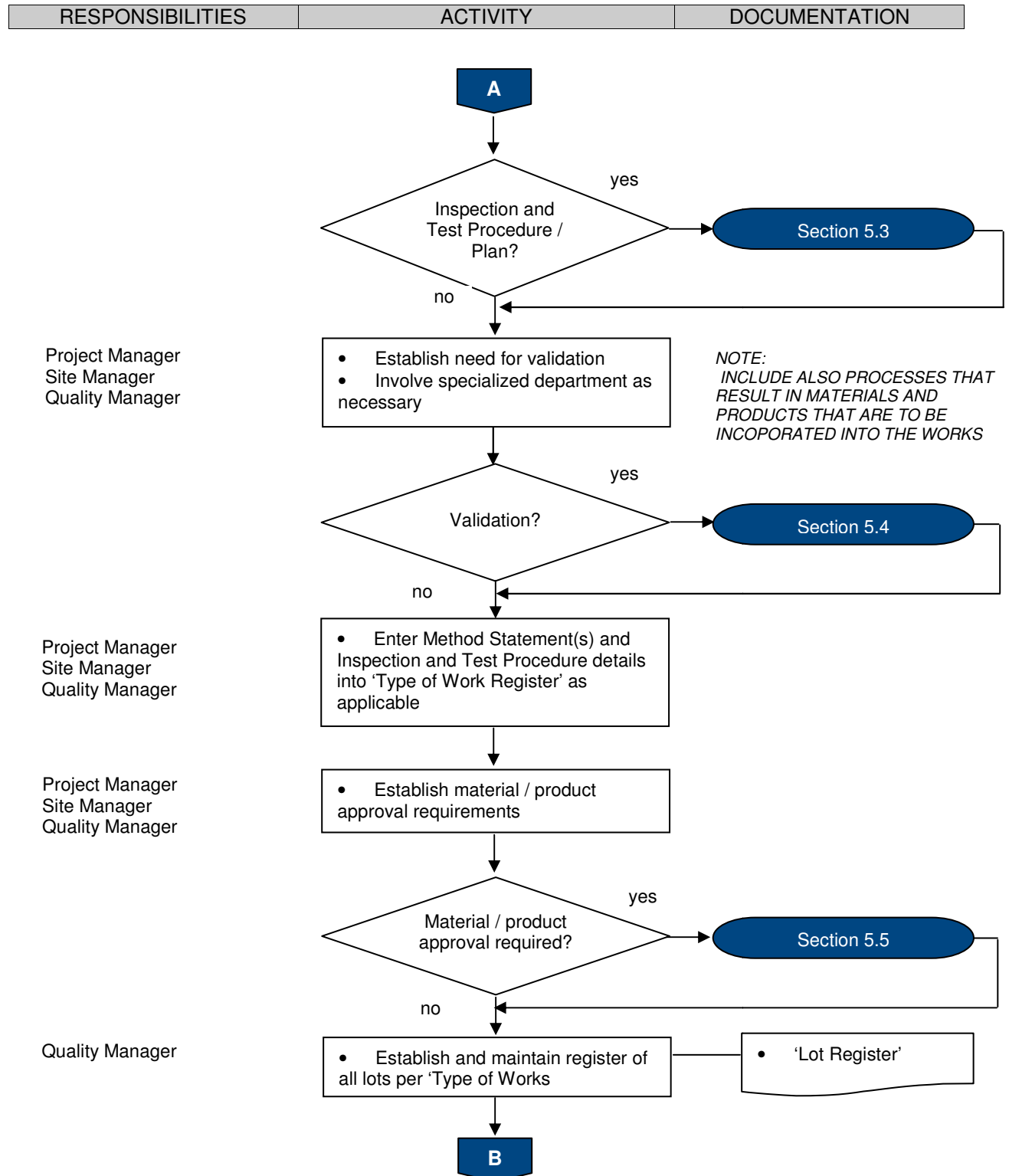
CQP- 440: Construction Control

- (ii) Identification of materials and planning of material supplies, including confirmation of suitability to satisfy specified requirements
 - (iii) Definition of acceptance criteria, planning of verification and as applicable validation activities for the works including those for materials
 - (iv) Review of results of activities (i) through (iii) above by designated competent JBN functions
 - (v) Execution of works
 - (vi) Supervision of construction execution
 - (vii) Verification and as applicable validation of works including those for materials
 - (viii) Documentation of activities (i) through (vii) as applicable and necessary to ensure consistency of communication and application of construction control activities
 - (ix) Reporting on quality status
- (2) Input to the planning process is information on availability of resources and materials, time allocation, site conditions and constraints, specified requirements, standards and specifications, applicable laws and regulations.
- (3) The construction control process is illustrated in flowchart FC 5.1-1, indicating the responsibilities and interfaces associated with its execution. The responsibility assignments indicate the principle functions involved. Detailed responsibility assignments are to be defined case by case.

Flowchart FC 5.1-1: Construction Control Process

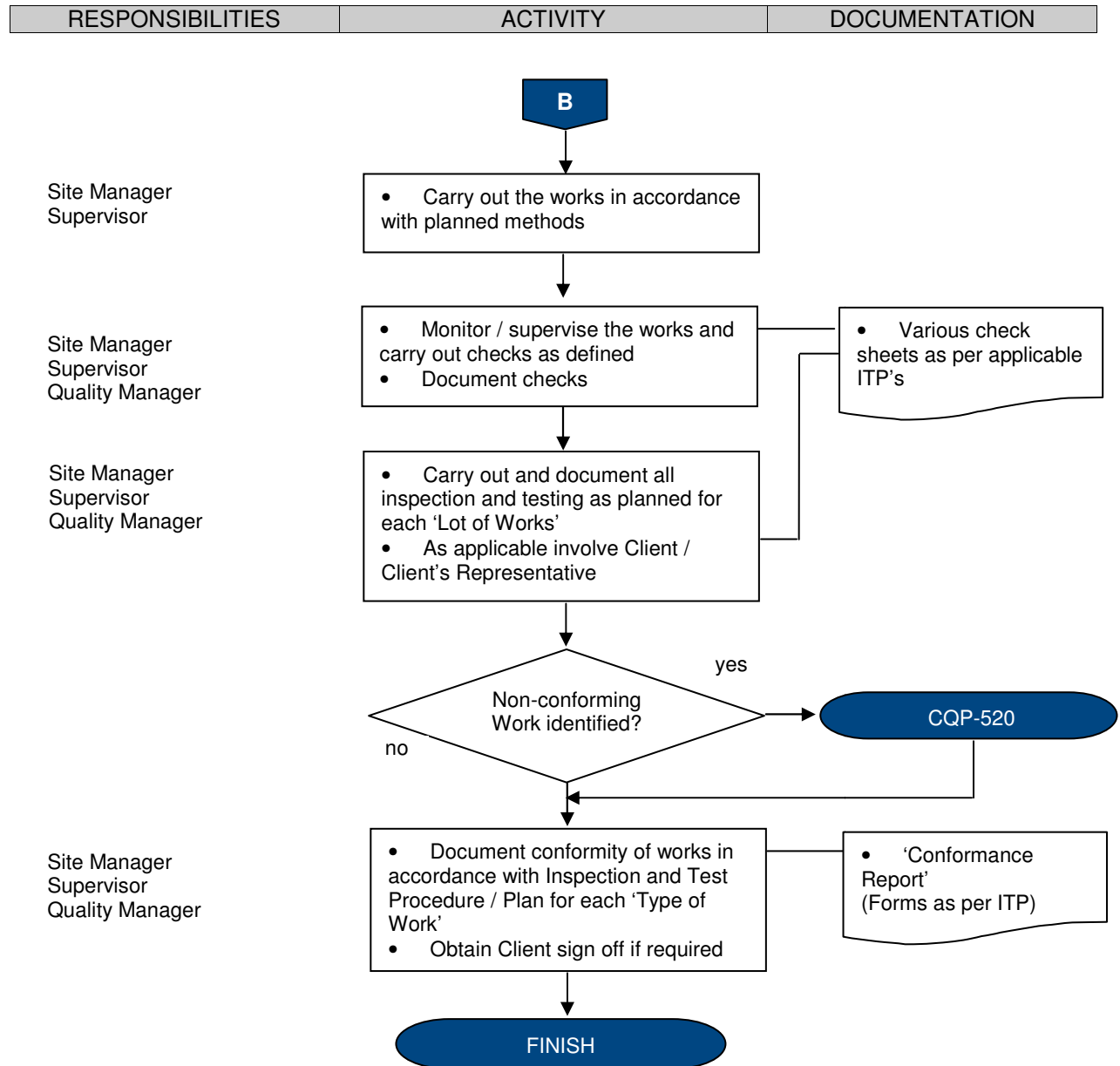


Flowchart FC 5.1-1: Construction Control Process cont'd



CQP- 440: Construction Control

Flowchart FC 5.1-1: Construction Control Process cont'd



5.2 CONSTRUCTION METHOD STATEMENTS

5.2.1 General

(1) Method Statements set out how particular activities or set of activities are to be carried out. Construction Method Statements are concerned with construction activities. This section describes the preparation of Construction Method Statements.

(2) The preparation process is illustrated in flowchart FC 5.2-1, indicating the responsibilities and interfaces associated with its execution

5.2.2 Requirements

(1) Assessment of the need for documented method statements shall be based and depending on

- (i) Complexity of operation. Method Statement shall be prepared where co-ordination of multi-stage operation and many personnel is required.
- (ii) Level of experience of personnel involved.
- (iii) Analysis of hazards
- (iv) Risk level in case that non-conforming / defective work occurs, including risk level to safety of personnel undertaking the operation
- (v) Employment of innovative methods and materials
- (vi) Contract requirements

(2) Pertinent contract requirements shall be fully addressed, including as regards Client's / Client's Representatives approval of the document.

(3) Further to the requirements defined in this procedure, development, release, distribution and change control shall be in accordance with Corporate Quality Procedures CQP-101, CQP-102 and CQP-103, respectively.

(4) Project Manager / Site Manager shall be responsible for establishing the requirement for and the timely preparation of method statements.

(5) Project Manager / Site Manager shall be responsible to involve specialized service departments if necessary, e.g. material and foundation experts, technical departments, designer, quality management / process management, safety management, and shall co-ordinate their involvement

(6) Project Manager / Site Manager shall be responsible to ensure method statements are reviewed by competent personnel, and approved in accordance with current delegated authority regulations.

(7) No work shall commence without the pertinent Method Statement being reviewed and approved.

(8) Project Manager / Site Manager shall be responsible to issue the Method Statements to designated personnel, which as a minimum shall include those directly involved in the execution and supervision, and inspection and testing of the works. It shall be ensured that personnel involved

is aware and fully understand the requirements defined in the Method Statement.

5.2.3 Method Statement Preparation

5.2.3.1 General

(1) When preparing a Method Statement, the following items shall be addressed

- Document layout and presentation
- Designs, calculations, assessments: providing the input for the work
- Characteristics, tolerances and workmanship standards
- Construction sequence / method
- Temporary works required
- Plant, labour and materials
- Interfaces between trades / other works
- Hazard analysis
- Safety (public, workers, property)
- Environmental protection
- Inspection and Test Procedure / Plan
- Inductions and training required

(2) Construction method statement cover sheet provided in the attachment to this procedure contains these items in checklist format.

(3) Project specific requirements for documented method statements, if any, shall be appropriately addressed.

5.2.3.2 Document Layout and Presentation

(1) Standard format for 'Construction Method Statement' document is attached

(2) Unless otherwise defined for particular application, the document shall be structured using following headings

- Introduction, purpose and scope
- Definitions, Abbreviations
- Responsibilities
- References
- Construction Methods
- Hazard Analysis
- Health, Safety, Environment [HSE]
- Quality Assurance / Quality Control
- Attachments

5.2.3.3 Design, Calculations, Assessments

(1) Design documentation, i.e.: drawings, specifications, etc., define requirements in the form of characteristics the completed works have to

comply with. Reference shall be made to the applicable design documents that state such characteristics for the particular work element.

5.2.3.4 Characteristics, tolerances and workmanship standards

- (1) Particular applicable characteristics, tolerances and workmanship standards shall be stated.
- (2) Special critical or extra-ordinary characteristics and tolerances, if any, shall be quoted and as necessary discussed in the document in relation to the construction method employed.

5.2.3.5 Construction methods

- (1) Construction methods describe how specified requirements including tolerances will be met. Defining the construction method shall include
 - (i) Description of what will be done, how, by whom, when and in which sequence
 - (ii) Equipments and tools that will be used
 - (iii) Supervision arrangements, other personnel and their qualification if required for the particular activity or task.
 - (iv) Materials and how such materials will be controlled, e.g.: upon delivery, during storage and when used.
 - (v) Materials and product identification requirements for conformity verification and traceability purposes.
 - (vi) Materials and products' inspection and test status identification marking, where applicable.
 - (vii) Assessment of temporary works required, including design, construction, checking during construction and before use, and removal / dismantling upon completion.
 - (viii) Interfaces between work stages and trades, including management of such interfaces
 - (ix) Analysis of potential hazards involved in the execution of the particular work and/or the work method employed in relation to quality, health, safety and environment, including any security measures put in place that impact on the way works are carried out.
 - (x) Analysis of risk of hazardous incidents occurring and the actions planned to prevent such incidents from occurring or as the case may be the mitigating action if they occur.

5.2.3.6 Temporary works

- (1) Temporary works, the extent required and the type, are typically defined by the particular construction method(s) employed. They include all those works that are required for the realization of the permanent works and may or may not be removed after completion of the permanent works
- (2) The need for temporary works shall be identified and described;
- (3) Design and construction shall be planned and scheduled to ensure timely completion for the commencement of the related permanent works.

- (4) As necessary a separate method statement shall be prepared for the construction of temporary works
- (5) Temporary works construction shall be monitored and controlled, and inspections and testing planned and carried out to ensure conformity of works with requirements defined in the temporary works design.
- (6) Temporary works documentation, e.g.: design documents, separate method statements if any, etc., shall be included or referred to in the permanent works' method statement to which they are pertinent.

5.2.3.7 Plant, labour and materials

- (1) Plant, equipment, labour and materials planned to be employed in the works shall be identified.
- (2) Any specific pre-mobilization activities and inspection requirements shall be stated.
- (3) Particular plant and equipment selected to ensure specific requirements are met shall be described.
- (4) Materials for the works shall be described with their main characteristics, including the controls carried out upon receipt, the methods of handling and storage and when used.
- (5) Key personnel allocation for the works shall be identified with regard to their responsibilities and qualification.

5.2.3.8 Interfaces between trades / other works

- (1) Interfacing with other works and trades may occur at the beginning, during and upon completion of a particular activity and may involve internal and external parties.
- (2) All such interfaces and the related characteristics shall be identified in the method statement and respective responsibilities defined, irrespective as to which functions / units are interfacing.
- (3) Responsibilities may include the provision of evidence that particular requirements have been complied with. Such provisions shall be defined.
- (4) Interfacing with completed other works shall be identified and any specific action that might be required shall be described.

5.2.3.9 Hazard analysis

- (1) Hazard analysis is to plan and act on potential risks that may occur and adversely impact on the successful completion of the works
- (2) Hazards involved in the works under consideration of the planned methods shall be identified and analyzed with regard to the potential risks for quality, safety and environment.
- (3) Potential sources of such hazards include site and weather conditions, equipment and plant, labor and materials. Measures planned to control such hazards shall be described.

- (4) Security issues as they constitute potential risks need to be addressed.

5.2.3.10 Health and safety

- (1) Work specific health and safety issues shall be addressed in accordance with JBN PLC HSE policies and procedures.
- (2) Health and safety hazards shall be identified and measures to control such hazards described.
- (3) HSE management for the works shall be the implementation of HSE policies and applicable safety procedures for those works.
- (4) HSE functions should review method statements for comments.

5.2.3.11 Environmental protection

- (1) Work specific environmental issues shall be addressed in accordance with statutory regulations, and JBN PLC environmental protection policies and procedures.
- (2) Environmental hazards shall be identified and measures to control such hazards described.
- (3) Environmental protection management for the works shall be the implementation of environmental policies and applicable environmental procedures for those works.
- (4) HSE functions should review method statements for comments.

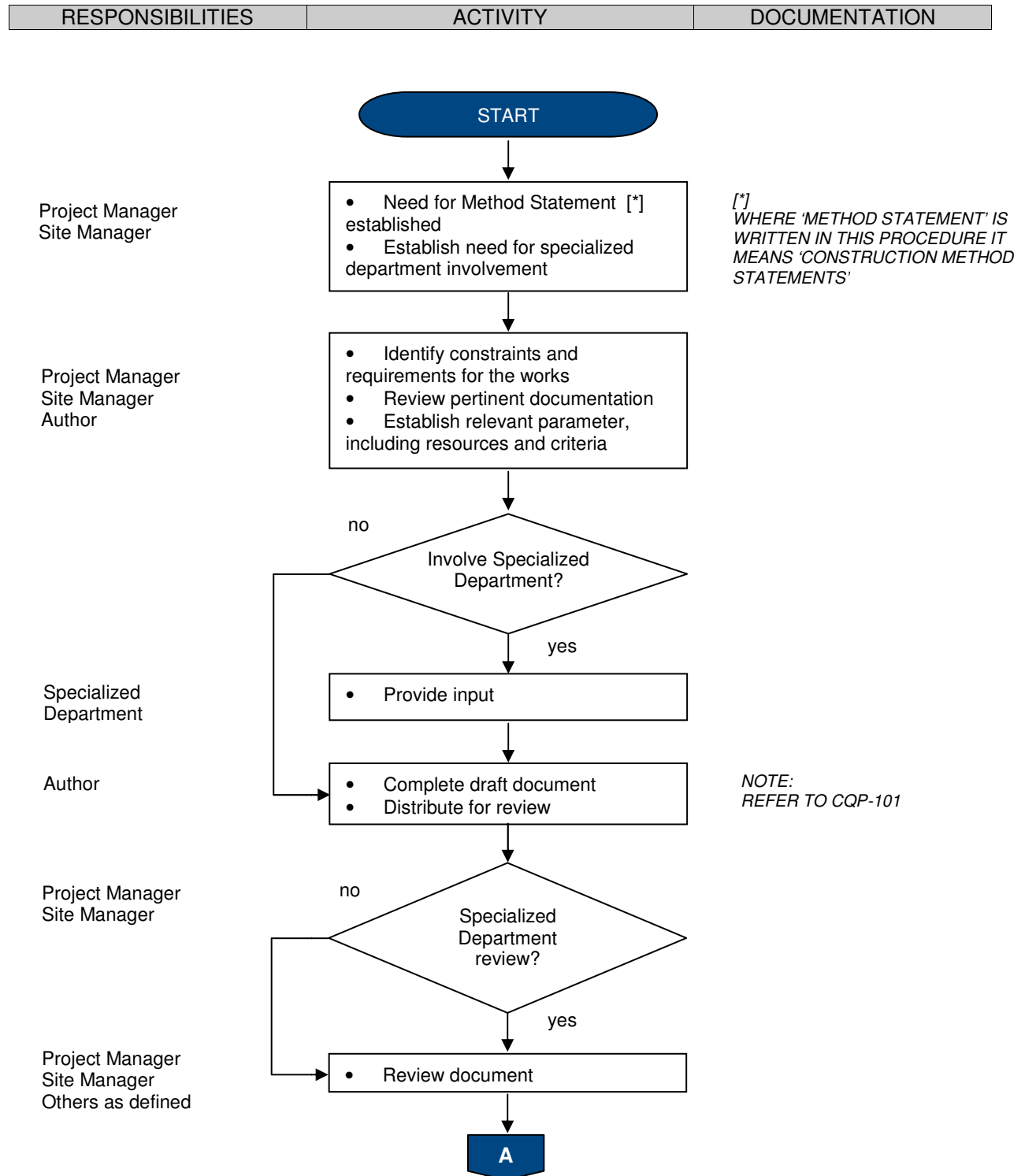
5.2.3.12 Inspection and Test Procedures / Plans

- (1) Reference to Inspection and Test Procedure(s)/ Plans relevant for the work shall be made or respective documents attached.

5.2.3.13 Induction

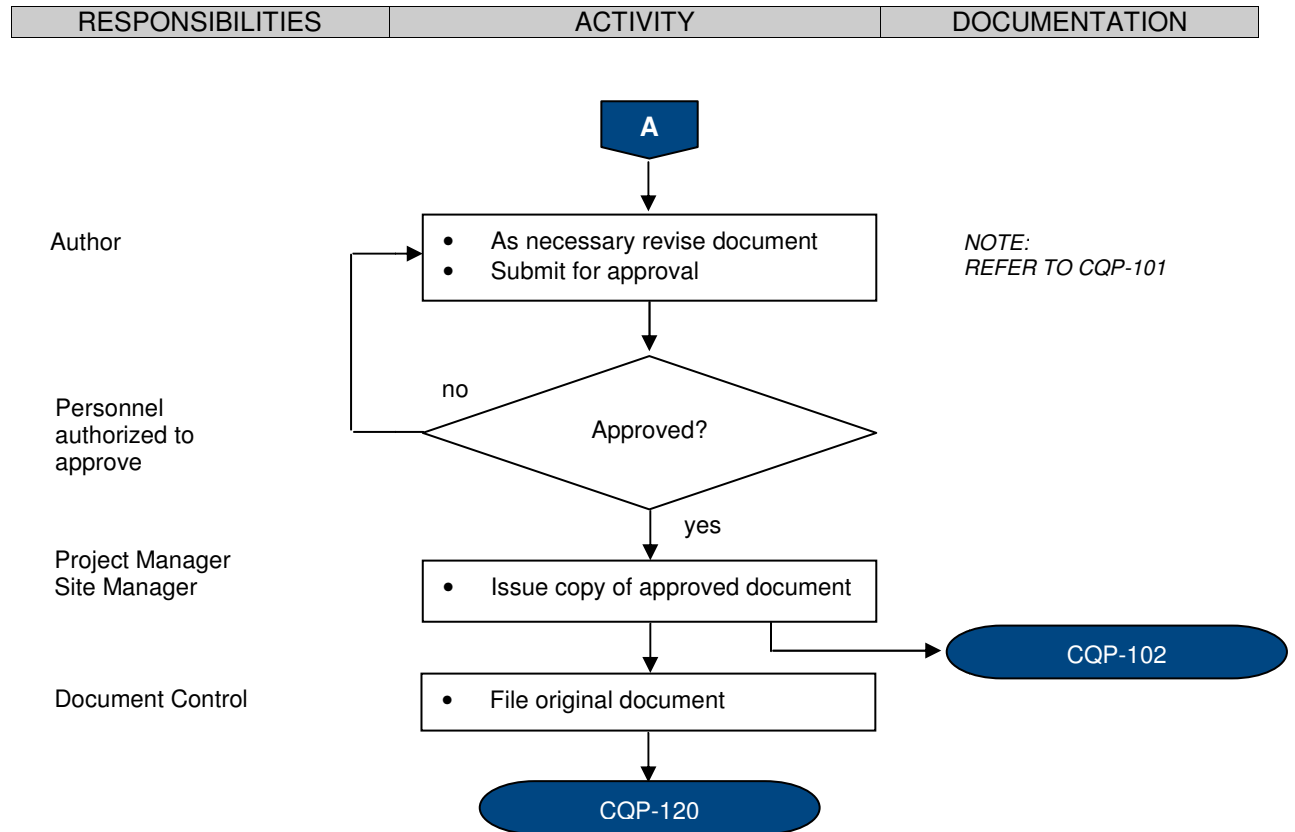
- (1) Work specific induction and training needs shall be defined.

Flowchart FC 5.2-1: Method Statement Preparation



CQP- 440: Construction Control

Flowchart FC 5.2-1: Method Statement Preparation Process, cont'd.



5.3 INSPECTION AND TEST PROCEDURES AND PLANS

5.3.1 General

- (1) Inspection and Test Procedures define the inspection and testing regime and documentation required to verify and to provide necessary evidence that specified requirements have been met for a particular 'Type of Works' element.
- (2) Inspection and Test Plans provide in tabular form the summary of all inspection and testing defined for a particular 'Type of Works' element. Such Plan is part of and should be contained within the respective 'Inspection and Test Procedure'. Details are defined in Subsection 5.3.2.4 (6) hereunder.
- (3) Further to the requirements defined in this procedure, development, release, distribution and change control shall be in accordance with Corporate Quality Procedures CQP-101, CQP-102 and CQP-103, respectively. Project Manager / Construction Manager / Quality Manager shall be responsible to
- (i) Establish the requirement for and the timely preparation and issue of Inspection and Test Procedures
 - (ii) Involve specialized departments as necessary, and coordinate their involvement
 - (iii) Issue Inspection and Test Procedure documents to designated personnel, including those directly involved in the execution, supervision and inspection and testing of the works.
- (4) Contractual inspection and testing requirements shall be fully addressed, including as regards Client's / Client's Representatives approval of the procedure.

5.3.2 Inspection and Test Procedure Preparation

- (1) The document shall be structured following the main headings
- Purpose, scope
 - Definitions, Abbreviations
 - Responsibilities
 - References
 - Procedures
 - Documentation, Quality Records
 - Forms
 - Attachments
- (2) Standard format for 'Inspection and Test Procedure' document is attached.
- (3) Minimum requirements with regard to each heading are defined below

5.3.2.1 Purpose and scope

- (1) The purpose of the document shall be stated in respect to pertinent 'Type of Works' and the requirements, contractual and others, related to it.

(2) The scope of work covered by the procedure shall be stated including interfaces with other trades and type of works covered elsewhere. As necessary, such other documents shall be referenced

(3) Where applicable status identification requirements for materials and products that are input to subject 'Type of Work' shall be defined.

5.3.2.2 Definitions, Abbreviations

(1) Works specific definitions and abbreviations used in the document shall be quoted

5.3.2.3 Responsibilities

(1) Responsibility for implementation of the procedure shall be defined, including responsibility for ensuring the personnel involved are trained in the application of the procedure

(2) Detailed responsibilities in relation to each activity shall be defined, e.g.: by referring to detailed process and responsibility descriptions in the document.

5.3.2.4 Procedures

(1) This section of the document shall be concerned with setting out in detail the process of monitoring, inspection and testing, including generation of documentation and related detailed responsibilities.

(2) The boundaries that define each 'Lot of Works' shall be stated.

(3) To establish traceability of records to the element of works for which they establish evidence of conformity, each 'Lot of Work' shall receive a unique identification code, identifying the 'Type of Work' and the particular work element.

(4) As applicable, the status of the work(s) that constitute the input to the subject 'type of work' shall be identified, confirmed and conformity verified and documented.

(5) The inspection and test status of the completed work element shall be stated, confirmed and conformity verified and documented.

(6) The procedure shall include in tabular form the planned activities in relation to monitoring, inspection and testing for acceptance, and documentation. The principle format is provided with this procedure [**Attachment: Inspection and Test Plan (ITPlan)**] and should be maintained under consideration of project specific requirements. With reference to such principle format for the 'Inspection and Test Plan', the following is to be defined as a minimum

- (i) **Main Activity:** listing of items for which confirmation of conformity is required and the supervising personnel, who shall be responsible for the activity. Main activities may include verification of conformity status of previous works / interfacing works.

- (ii) **Check Item:** listing all items / characteristics that need to be inspected to allow confirmation of conformity of main activity, including the tools to inspect and measure such characteristics, and the frequency of inspections / testing required per such item.
- (iii) **Document Reference:** for each inspection item making reference to the documents that define requirements in relation to the item and/or characteristic to be verified.
- (iv) **Acceptance Criteria:** for each inspection item stating the relevant acceptance limits that constitute conformity of the item / characteristics, e.g.: dimensions and tolerances, levels and tolerances, degree of compaction, strength of materials, etc.
- (v) **Acceptance Endorsement:** for each inspection item to specify per function, including, as the case may be the Client / Client's Representative, authority and responsibility to endorse acceptance of item inspected under the various inspection categories (others may be defined depending on the particular project requirements)
 - (H) ... Hold Point Inspection
 - (W) ... Witness Point Inspection
 - (S) ... Surveillance Inspection
 - (R) ... Review of Documents
- (vi) **Documentation, Quality Records,** for each item to quote the document proforma that is used to establish the record that specified requirements have been met

5.3.2.5 References

- (1) Documents that have been used for the preparation or are otherwise relevant to the procedure, including quality procedures, method statements, internal standards, industrial standards, specifications, drawings, etc., shall be referenced

5.3.2.6 Documents, Quality Records

- (1) Records of inspection and testing are typically taken using standard blank forms, which may include conformance reports, check sheets, test reports, survey records, etc.
- (2) Basic standard blank forms that define the inspection and testing documentation for a 'Lot of Works' are attached, and include
 - **Conformance Report:** is the documented certification that all checks as per ITPlan have been carried out, the results conform with requirements and any non-conformities as may have been identified have been rectified and closed.
 - **Lot Register:** is the register of all lots of a 'Type of Work'
 - **Check Sheets:** is the record of checks carried out on a work element within a lot. Check sheets may be required for complex activities to ensure full and documented control for individual items,

e.g.: inspection of formwork, reinforcement, etc. prior to concrete pour.

(3) The requirements defined in Corporate Quality Procedure CQP-110: Quality Records shall be applicable

(4) The documents that are generated to provide evidence that requirements have been met shall be stated.

(5) Responsibilities and requirements for filing and archiving of original and as the case may be copy of documents shall be defined, including any document submissions to Client / Clients Representative.

5.4 VALIDATION

(1) Works processes, including those that produce materials / products that are incorporated into the works, shall be reviewed whether conformity of such materials / products can be verified by subsequent inspection and testing or only after the completed works or parts thereof are in use or service.

(2) In such cases, validation shall be carried out, which may include test trials, simulations of 'use conditions', etc. Typical examples for validation are: trial mixes for concrete mix designs, compaction trials, pile load tests, weld qualification, non-destructive testing qualifications, etc.

(3) Where validation entails to employ particular methods, equipment and personnel, the need for a documented method statement shall be established in accordance with Section 5.2.

(4) The validation process shall return a statement of suitability of the works process to achieve desired result. Criteria for 'suitability / non-suitability' shall be defined

(5) Where the validation process requires that the results of the validation process are verified and documented, Inspection and Test Procedures shall be established in accordance with Section 5.3

5.5 MATERIALS

5.5.1 General

(1) For the purpose of this procedure 'materials' shall mean all materials and products or components thereof that are either the result of a process or are raw materials that are to be processed yet.

(2) Principally shall suitability of all materials be confirmed and approved prior to use by authorized personnel only and by Clients or their Representative if such requirement is defined in the contract.

(3) Authority to confirm and approve materials for use shall be defined. ['Corporate Schedule of Delegated Authority' refers]

(4) For materials that are to be purchased, such confirmation / approval shall be obtained prior to entering into any purchase agreement.

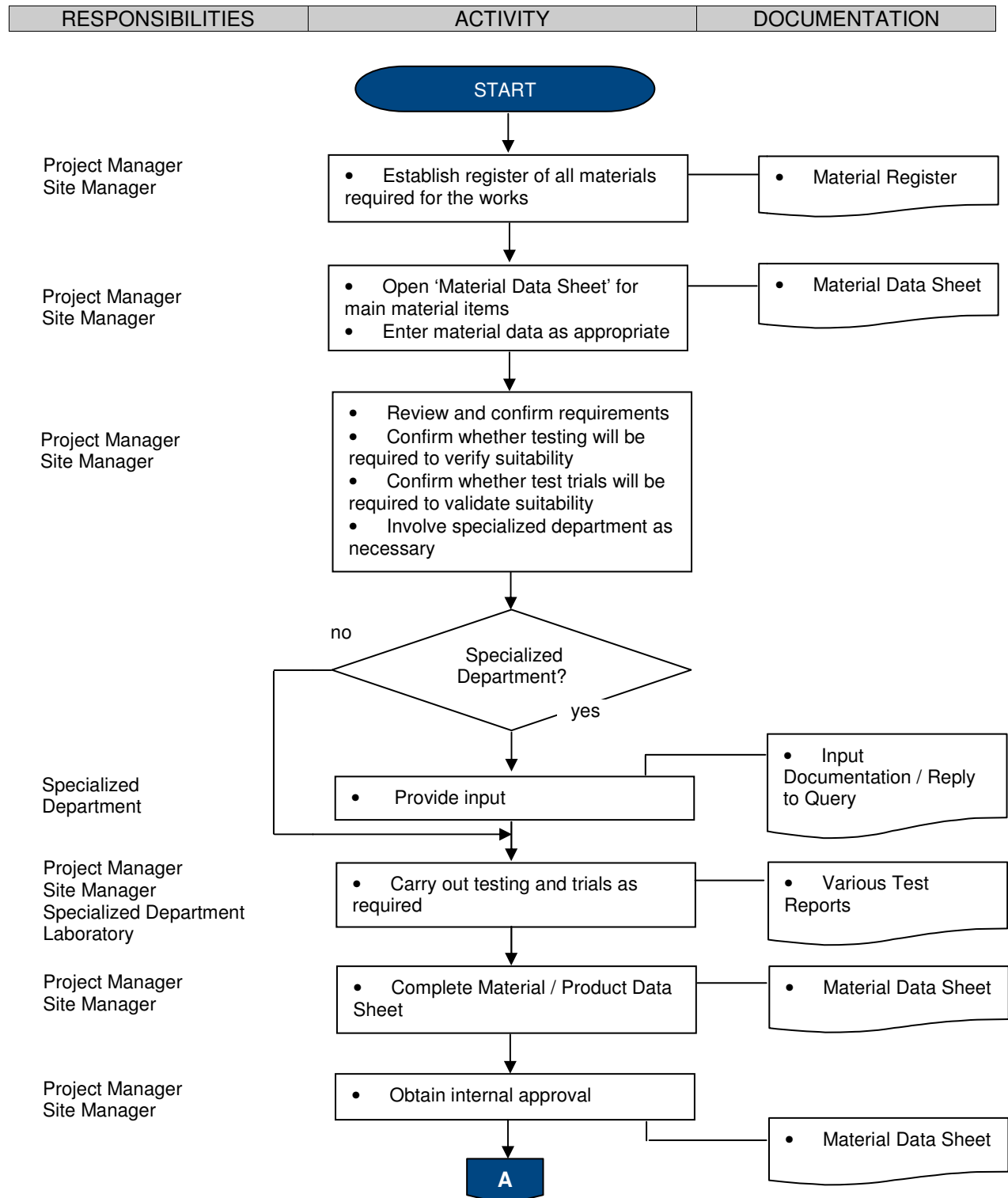
CQP- 440: Construction Control

- (5) The extent to which such requirement is to be applied also for materials and products for temporary works shall be defined case by case by the Project Management / Site Management.
- (6) Project Manager / Site Manager shall be responsible to ensure that all materials have been approved for the works in accordance with this procedure.

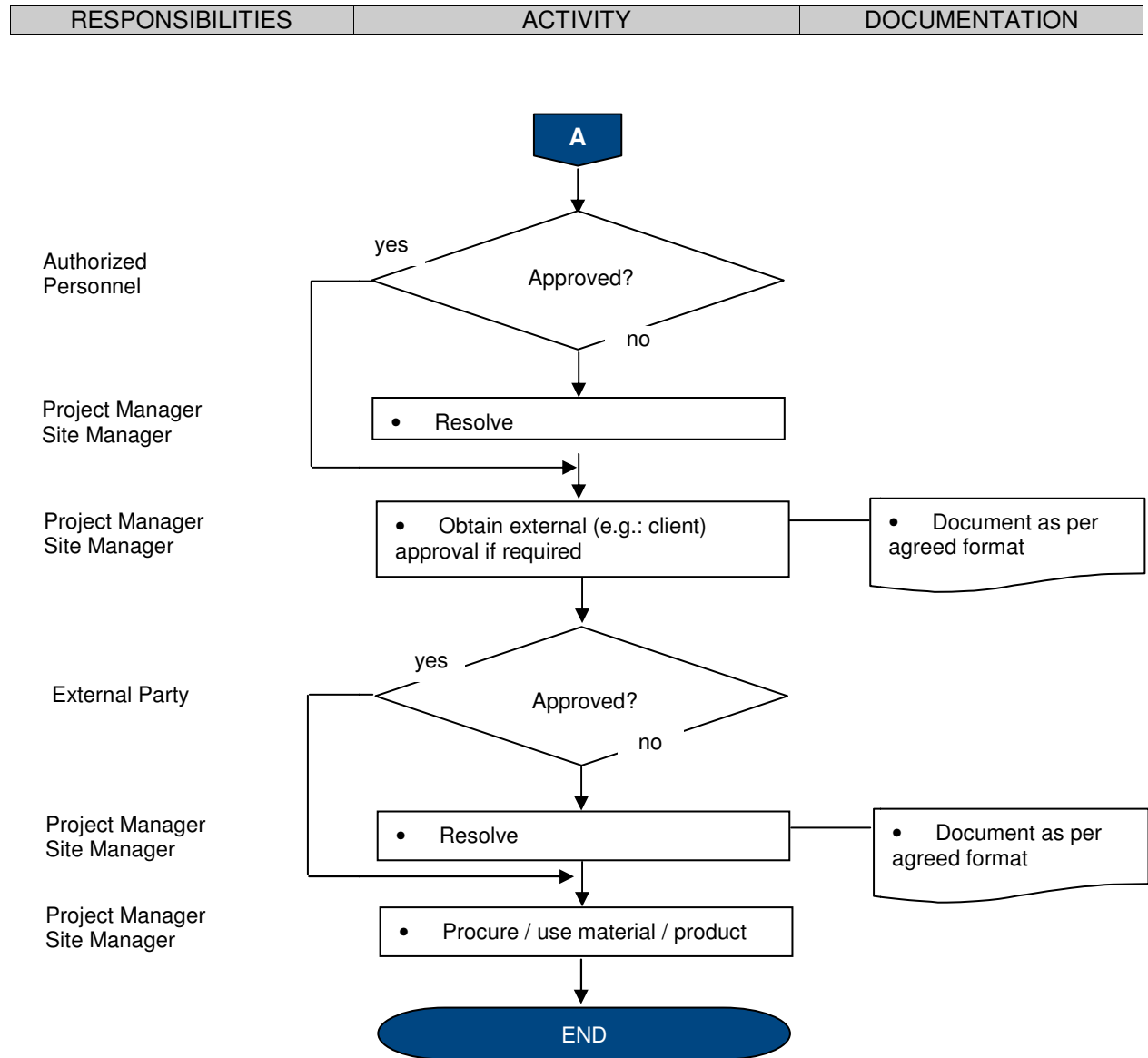
5.5.2 Material Approval Process

(1) The material approval process is illustrated in flowchart FC 5.5-1, indicating the responsibilities and interfaces associated with its execution

Flowchart FC 5.5-1: Material Approval Process



Flowchart FC 5.5-1: Material Approval Process



5.6 QUALITY STATUS REPORTING

- (1) Quality status reporting is the periodic reporting on conformity and nonconformity, respectively, of the works in relation to the overall work progress status.
- (2) Quality status reporting shall be based on the systematic structure for planning and implementation of construction control defined in this procedure.
- (3) Standard format for quality status reporting is attached Form CQP-440_BF-03_QSR]
- (4) Quality status shall be reported at regular intervals consistent with project progress reporting requirements. Intervals and distribution of report shall be defined in Project Quality Plan. As a minimum a copy of the quality status report shall be provided to the Division Quality Manager.
- (5) Quality status report shall comprise
 - Narrative to include any issues of concern
 - Quality Status Report using standard format
 - Non-conformance Report Status (refer to CQP-520)
 - Type of Work Register

6 DOCUMENTS, QUALITY RECORDS

- (1) The procedure provides as attachment various standard blank forms, which shall be used as reference standard format to develop project specific documentation. Such forms are identified below.
- (2) The following documents generated under this procedure are quality records
 - (i) Material Data Sheets
 - (ii) Type of Work Register
 - (iii) Conformance Reports (reference standard format)
 - (iv) Lot Register (reference standard format)
 - (v) Check Sheets (reference standard format)
 - (vi) Test Reports
 - (vii) Material certificates
 - (viii) JBN Internal review + approval records [no specified format]
 - (ix) Client Approval Certificates if applicable
 - (x) Quality Status Report
- (3) All documents are generated in relation to particular project requirements, respective project reference is therefore to be made as provided in the proformas.
- (4) Retention and distribution of original and copies of records, including those to be submitted to Client / Client Representative shall be defined in Project Quality Plans.

7 REFERENCES

7.1 QUALITY MANAGEMENT SYSTEM DOCUMENTATION

7.1.1 Manuals, Plans

- (1) Corporate Quality Manual
- (2) Corporate Health, Safety and Environmental Management System Manual

7.1.2 Corporate Quality Procedures

- (1) CQP- 101: *Management System Documentation – Development and Release Control*
- (2) CQP- 102: *Document Control – Distribution of Hardcopies*
- (3) CQP- 110: *Control of Records*
- (4) CQP- 120: *Filing and Archiving*
- (5) CQP- 520: *Control of Non-conforming Product*

7.1.3 Operating Procedures

None

7.2 OTHERS

None

8 FORMS

- (1) CQP-440_BF-01_TOWReg: Type of Work Register
- (2) CQP-440_BF-02_MDS: Material Data Sheet
- (3) CQP-440_BF-03_QSR: Quality Status Report
- (4) 'Construction Method Statement' standard document format for general corporate and project application [MS_StdFormat.doc]
- (5) 'Inspection and Test Procedure' standard document format for general corporate and project application [ITP_Std.Format_Re.2.1.doc]
- (6) 'Inspection and Test Plan' [ITP-xx:...] standard document format for general corporate and project application [ITP-xx_ITPlan_Standard_Rev.2.1.xlsx]
- (7) Reference standard format for 'Inspection and Test Procedure – Conformance Report' [ITP-xx_BF-01_CR_Standard_Rev.2.1.xlsx]
- (8) Reference standard format for 'Inspection and Test Procedure - Lot Register' [ITP-xx_BF-02_LOTReg_Standard_Rev.2.1 .xlsx]
- (9) Reference standard for 'Inspection and Test Procedure – Check Sheet' [ITP-xx_BF-03_CS_Standard_Rev.2.1.xlsx]

9 ATTACHMENTS

Documents (1) through (9) of Section 8.

Construction Control, Type of Works Register

TYPE OF WORK REGISTER							STATUS DATE		
S/N	TYPE OF WORK			INSPECTION AND TEST PROCEDURE			METHOD STATEMENT		
	IDENT. REF.	DESCRIPTION	LOT BOUNDARIES	DOC. REF. NO.	DUE DATE	IMPL. DATE	DOC. REF. NO.	DUE DATE	IMPL. DATE
	Construction Materials								
1	CPS	Concrete production + Supply	production per class and month	AID_ITP-010					
2	MAB	Ashalt + Bit. Materials Supply	production per class and month	AID_ITP-015					
3	PPC	Project Precast Concrete Elements	each precast concrete element produced for defined section of works	AID_ITP-020					
4	RSS	Reinforcement Supply(cut and bent)	each delivery	AID_ITP-040					
	Earthworks								
5	EWR	Site Clearance and Earthworks	Section of earthworks of 1000m for roads or 500m2 for plots	ITP-150					
		Subgrade Cut/Fill		—					
	Concrete Works								
6	CIC	Cast Insitu Concrete Works	one building part or element thereof.	ITP-200					
		Buildings (Foundations + Columns + Walls + Slabs)		—					
		Retaining Walls		—					
7	PCI	Precast Concrete Installation	complete Installation per defined location	ITP-220					
	Finishing Works								
8	MBW	Masonry/Brickwork	one building part or element thereof.	ITP-230					
9	ROF	Roofing	complete roofing works per defined location	ITP-240					
		Skylight	”						
10	BFW	Building Finishing Works	each room	ITP-250					
		Water Proofing/Damproofing		—					
		Plastering		—					
		Floor Screed		—					
		Tiling		—					
		Suspended Ceiling		—					
		Raised Floor		—					
		Dry Walling		—					

Construction Control, Type of Works Register

TYPE OF WORK REGISTER							STATUS DATE		
S/N	TYPE OF WORK			INSPECTION AND TEST PROCEDURE			METHOD STATEMENT		
	IDENT. REF.	DESCRIPTION	LOT BOUNDARIES	DOC. REF. NO.	DUE DATE	IMPL. DATE	DOC. REF. NO.	DUE DATE	IMPL. DATE
		Doors	complete Installation per defined location						
		Windows	”						
		Glazing	”						
		Architectural Metal Works							
		Painting							
11	SST	Structural Steelworks	complete Installation per defined location						
		Steel Structure Preassembly							
		Protective Coatings							
		Installation of Structural Steelwork							
		Kalzip Roof Structure	”						
12	FCW	Cladding & Curtain Walling (façade)	One building section						
	Infrastructure Works - M+E								
13	IFW	External Underground Networks (Sewage, Water, CableNetworks)		ITP-500					
		Stormwater System							
		Wastewater Sytem							
		Water Network							
		Fire Main							
		Ducting & Cable Trenches							
	Mechanical and Electrical Works (Building)								
14	MEW	Mechanical Works	to be defined by individual project specifications	ITP-600					
		Air Conditioning System							
		Plumbing Works							
		Water Tanks and Pumps							
		Firefighting System							
		Lifts							
15	ELW	Electrical Works	to be defined by individual project specifications	ITP-700					
		Lightning Protection & Earthing							
		Cable Trays and Conduits							
		Distribution Panels							
		Cable Installation							
		Lighting System							

NIGERIA SOVEREIGN INVESTMENT AUTHORITY (NSIA)

Quality Management System Documentation

INSPECTION AND TEST PROCEDURE

ITP-200

CAST IN-SITU CONCRETE WORKS

[CIC]

Where this page exhibits the words, "Controlled Copy" this means:

- 1) Distribution is centralised - in this case from Quality Manager [QM]
- 2) Each copy is issued to a particular person or organisation. If no longer required it should be returned.
- 3) It is not to be photocopied either in whole or in part. Additional copies are available on request.
- 4) Copyholders will be automatically issued with any amendments. Responsibility for incorporating such amendments rests with the copyholder.

DOCUMENT REVIEW AND APPROVAL THIS ISSUE

REV.	DATE	DESCRIPTION	Date PREPARED	Sign.	Date REVIEWED	Sign.	Date APPROVED	Sign.
1.0	xx-yy-2025	Draft	QM-R		TM		PM	

Inspection and Test Procedure
ITP-200: Cast In-situ Concrete Works [CIC]

DOCUMENT REVISION HISTORY

S/N	REV.	DESCRIPTION	PREPARED	REVIEWED	APPROVED

TABLE OF CONTENT

Cover Page	1
Document Revision History	2
Table of content.....	3
1 PURPOSE, SCOPE.....	4
2 DEFINITIONS, ABBREVIATIONS	4
2.1 Definitions	4
2.2 Abbreviations	4
3 RESPONSIBILITIES	4
4 REFERENCES	5
4.1 Quality System Documentation	5
4.1.1 Quality Management System Documentation.....	5
4.2 Contract DOCUMENTS	5
4.3 Others	5
5 PROCEDURES	5
5.1 Reinforcement Cutting, Bending and Delivery to Site.....	5
5.2 Reinforcement Fixing and Placing	5
5.3 Formwork / Scaffolding	6
5.4 Embedded Item.....	6
5.5 Concreting	6
5.6 Actions and Checks after Removal of Forms, False Work.....	7
5.7 Works' Control, Inspection and Testing.....	7
5.8 Conformance Verification, Documentation, Certification.....	7
5.8.1 Certification	8
6 DOCUMENTATION, QUALITY RECORDS	8
7 FORMS	9
8 ATTACHMENTS.....	9

1 PURPOSE, SCOPE

(1) To set out the procedure for inspecting and testing cast in-situ concrete works to ensure all works are carried out in accordance with contract specifications and drawings.

(2) The procedures shall be applicable for all cast in-situ concrete works in the project.

2 DEFINITIONS, ABBREVIATIONS

2.1 DEFINITIONS

Definition of terms used within this document are defined in the referenced QMS documents.

2.2 ABBREVIATIONS

JBN	Julius Berger Nigeria PLC
QMS	Quality Management System
ER	Employer's Representative
ITP	Inspection and Test Procedure
QA/QC	Quality Assurance / Quality Control
HSE	Health, Safety and Environment
CQP	Corporate Quality Procedure

3 RESPONSIBILITIES

(1) The Project Manager shall introduce the procedures and ensure all personnel involved in in-situ concrete work are inducted and aware of the requirements set out herein.

(2) Project Technical Office Engineer, QA/QC Manager, Site Manager, Site Supervisors, and Surveyor shall be responsible for implementing the procedures as further detailed in the Inspection and Test Plan.

(3) The Laboratory Supervisor shall implement the procedures and ensure test equipment is documented, controlled and calibrated in accordance with relevant CQPs.

4 REFERENCES

4.1 QUALITY SYSTEM DOCUMENTATION

4.1.1 Quality Management System Documentation

- (1) Corporate Quality Manual
- (2) Corporate Quality procedure
 - CQP-440: Construction Control
 - CQP-520: Control of Non-conforming Work
- (3) Quality Management Plan

4.2 CONTRACT DOCUMENTS

- (1) General Specifications and Requirements
- (2) Approved Drawings

4.3 OTHERS

None

5 PROCEDURES

5.1 REINFORMENT CUTTING, BENDING AND DELIVERY TO SITE

- (1) Conformity of all reinforcement steel supplied shall be certified according to Inspection and Test Procedure ITP-040: Reinforcing Steel Works and Supply
- (2) Confirm Construction Drawings and Bending Schedule
- (3) Cut and bent rebar complying with bending schedule and bar mark / position clearly identifiable against schedule.
- (4) Bending radii, dimensions shall be in compliance with drawing / bar bending schedule / specification.
- (5) Storage area for rebar on site shall prepare and off the ground.

5.2 REINFORCEMENT FIXING AND PLACING

- (1) Number, size, form and position of reinforcement shall be according to the drawing and bar bending schedule.
- (2) Confirm rebar dimensions per bar mark position (length, diameter, numbers)
- (3) Confirm arrangement, position and spacing of rebar

Inspection and Test Procedure
ITP-200: Cast In-situ Concrete Works [CIC]

- (4) Confirm bends, splicing, lap length according to drawing
- (5) Confirm stirrups / spiral bar diameter and pitch
- (6) Confirm concrete cover, spacers, support chairs
- (7) Welding as approved by Employer/Engineers representative.
- (8) Confirm cleanliness of rebar prior concreting

5.3 FORMWORK / SCAFFOLDING

- (1) Formwork method and design shall be in accordance with approved specification.
- (2) Position and dimension of formworks shall be within tolerance
- (3) Formwork shall be sufficiently rigid and watertight to prevent loss of grout
- (4) Formwork cleaned and release agent applied with approved material
- (5) Block outs, recesses; position shall be within tolerance and dimension
- (6) Formwork shall be tied and braced
- (7) Formwork shall be designed as to be readily removed without shock and damage to concrete.

5.4 EMBEDDED ITEM

- (1) Type, position and dimension shall be in accordance with drawings and specified to tolerance
- (2) Confirm joints preparation and position is according to drawing and specification.

5.5 CONCRETING

- (1) Prior to pouring, ensure all procedures outlined conform to drawings and specifications
- (2) Confirm concrete class and mix is in accordance with drawing and mix specified
- (3) Concrete ordered with separate and intervals between each single mixer truck defined
- (4) Temperature of fresh concrete checked for each pour and in accordance with requirements
- (5) Method of concrete placing defined and arrangements in place
- (6) Equipment and tools in place and functioning e.g. concrete pumps, pipes, vibrators, water pumps, etc.
- (7) Concrete deliveries checked against order and properly recorded by use of "Concrete Pour Report" form

Inspection and Test Procedure
ITP-200: Cast In-situ Concrete Works [CIC]

- (8) Concrete shall be placed and compacted in its final position and concreting shall be carried out continuously up to the end or joints
- (9) Vibration shall be carried out such that it prevents segregation in concrete

5.6 ACTIONS AND CHECKS AFTER REMOVAL OF FORMS, FALSE WORK

- (1) Earliest removal of formwork shall be done according to standard or otherwise confirmed by tests on cubes stored under same conditions.
- (2) Lifting or handling of pre-cast members shall be done only after the required minimum strength, as defined on the drawings, is reached and confirmed by a test result.
- (3) Protection against weather influence and from loading
- (4) As built dimensions for check of conformity with allowable site tolerances according to specification.
- (5) The concrete surface for finishing shall comply with specification.
- (6) Check Concrete surface for defects and imperfections.
- (7) Curing shall be carried out in accordance with specification and for a minimum period of seven (7) days.
- (8) If necessary, protection shall be given to reinforcement starter bars or embedded parts (e.g. water stops ...).

5.7 WORKS' CONTROL, INSPECTION AND TESTING

- (1) Sampling and testing and conformity verification of concrete, including constituents, supplied for the works shall be in accordance with 'Sampling and Testing Schedule' [CPS-SampTestSched] of Inspection and Test Procedure ITP-010: Concrete Production and Supply [AID_ITP-010_CPS]. In case of failure re-testing shall be done.
- (2) Conformity verification of reinforcing steel supplied for the works shall be in accordance with Inspection and Test Procedure ITP-040: Reinforcing Steel Works and Supply [AID_ITP-040_RSS].
- (3) Testing of materials shall be carried out only with calibrated equipment as defined in Corporate Quality Procedure CQP-470: Control of Measuring and Test Equipment [CQP-470].

5.8 CONFORMANCE VERIFICATION, DOCUMENTATION, CERTIFICATION

- (1) Conformance verification, inspection, testing and documentation shall be done for each 'Lot of Work' in accordance with the scope and details defined in the 'Inspection and Test Plan.
- (2) The boundaries that define one lot of 'Cast In-situ Concrete Works' shall be

➤ **Lot. No.: CIC / AAA / BBB / DD.MM.YY / E**

CIC..... Type of Work code

A Work section identification / Work unit

BB..... Structural element identification

DD.MM.YY. Date of concreting

E..... Consecutive CIC number

5.8.1 Certification

- (1) Certification of conformity shall be with Project Management, e.g.
- All checks carried out, all works conforming
 - All testing carried out, documented and results conforming
 - All documentation completed and available
 - All non-conformances (if any) closed out.

6 DOCUMENTATION, QUALITY RECORDS

The following documents generated under this procedure are quality records and shall be retained by Project Management

- (1) Conformance Report
- (2) Reinforcement Check Sheet
- (3) Concrete Pour Report
- (4) Lot Register
- (5) Concrete compressive strength records
- (6) As-built survey records

Distribution of copies (C) and/ or original documents (O) for archiving shall be as defined below

Bold face print indicates project archiving responsibilities.

	(1)	(2)	(3)	(4)	(5)	(6)
QA/QC Department	(O)	(O)	(O)	(O)	(C)	
Site Manager	(C)	(C)	(C)	(C)	(C)	(C)
Survey Department						(O)
Laboratory					(O)	

Alternatively, as defined by Project Management.

7 FORMS

- (1) ITP-200_BF-01: Conformance Report
- (2) ITP-200_BF-02: Lot Register
- (3) ITP-200_BF-03: Reinforcement Installation Check Sheet
- (4) ITP-200_BF-04: Concrete Pour Report

8 ATTACHMENTS

- (1) Forms of Section 7
- (2) ITP-200_ITP: Inspection and Test Plan
- (3) CQP-440_C.MS.RCR-001: Support Chairs and Spacers

Inspection and Test Procedures/ Plan:

ITP-200: Cast In-situ Concrete Works[CIC] / Conformance Report [CR]

CONFORMANCE REPORT		LOT. NO.	A	BB	CCC	DD	Cons. No.
		CIC					
		DATE OPENED			DATE CLOSED		
REF. DRW. NO/NOS.		LOCATION / DESCRIPTION:					
	ITEM DESCRIPTION	ACCEPTANCE CRITERIA	C	DNC	REMARKS		
	☒ Check required / carried out	[Drw./ Specs. Ref.; Tolerances; Characteristics]					
1	☒ DRAWING, SPECIFICATION, MIX DESIGN	Approval	☐	☐			
2	☒ PREVIOUS LOTS CONFORM	All NCR's and Lot closed	☐	☐			
3	☒ SETTING OUT; ORIENTATION	Drawings	☐	☐			
4	☒ PREPARATION OF FOUNDATION	Drawings	☐	☐			
5	☒ JOINTS [construction joints; movement joints]	Drawings	☐	☐			
6	☒ REINFORCEMENT [cut, bend, fixed,placed]	Drawings	☐	☐			
7	☒ CONCRETE COVER, SPACERS	Drawings	☐	☐			
8	☒ FORMWORK [cleaning,position,tightness]	Drawings	☐	☐			
9	☒ CHAMFER, OPENING, RECESSES	Drawings	☐	☐			
10	☒ MECHANICAL + ELECTRICAL	Drawings	☐	☐			
11	☒ EMBEDDED PARTS	Drawings	☐	☐			
12	☒ SURVEY [position, line, level, dimension]	Drawings	☐	☐			
HOLD POINT CHECK [SIGN./ DATE]		JBN SUPERVISOR / SITE ENGINEER/QC ENG.	ENGINEER				
13	☒ CONCRETE POURING [free fall]	Max.3.0m	☐	☐			
14	☒ CONCRETE COMPACTION [method]		☐	☐			
15	☒ SAMPLING / TESTING [nos sampes,slump]	Drawings	☐	☐			
16	☒ CURING [method, duration]	Drawings	☐	☐			
17	☒ FINISHING [class,trueness of shape]	Drawings	☐	☐			
18	☒ STRIPPING FORM [time elapsed,strength]	Drawings	☐	☐			
19	☒ SURFACE CONDITION [honeycombs,cracks]	no defects	☐	☐			
20	☒ AS BUILT [position,dimensions, line,level]	Drawings	☐	☐			
21	☒ COMPRESSIVE STRENGTH [7 and 28 days]		☐	☐			
22	☒ DOCUMENTATION / TEST REPORTS	Drawings	☐	☐			
NOTES							

C : Complies; DNC : Does Not Comply; NCR ... Nonconformance Report

Tick box as appropriate; tick both boxes if initial inspection is unsatisfactory

CONFORMANCE CERTIFICATION [TICK ONE BOX AS APPROPRIATE]	
☐ LOT FULLY COMPLIES	
☐ LOT IS REDEFINED AS	
☐ LOT CONFORMS EXCEPT FOR APPROVED CONCESSIONS AS DETAILED ON NCR(s)	
FOR JBN PLC	FOR CLIENT

Inspection and Test Procedures/ Plan:

ITP-200: Cast In-situ Concrete Work [CIC] / Lot Register [LR]

LOT REGISTER [LR]				TYPE OF WORK IDENT.		CIC		STATUS DATE						
				TYPE OF WORK DESCRIPTION		CAST IN-SITU CONCRETE WORKS								
S/N	LOT IDENTIFICATION NO.			DESCRIPTION			DOCUMENTATION (*)				DATE OPENED	DATE CLOSED	REMARKS	
							(1)	(2)	(3)	(4)	(5)			[e.g.:Major NCR's; outstanding issues, etc.]
1	CIC													
2	CIC													
3	CIC													
4	CIC													
5	CIC													
6	CIC													
7	CIC													
8	CIC													
9	CIC													
10	CIC													
11	CIC													
12	CIC													
13	CIC													
14	CIC													
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26	CIC													
27	CIC													
28	CIC													
29	CIC													
30	CIC													

(*) Note: (1) Conformance Report, (2) Reinforcement Check Sheet, (3) Concrete Pour Report, (4) Concrete compressive strength records, (5) As-built survey records

Inspection and Test Procedures/ Plan:
ITP-200: Cast In-situ Concrete Work [CIC]

REINFORCEMENT INSTALLATION CHECK SHEET				LOT. NO.									
				A		BB		CCC		DD		Cons. No.	
				CIC									
				INSPECTION BY / DATE									
Project Name:				REF. DRW. NOS.									
				LOCATION / DESCRIPTION / STRUCTURAL ELEMENT									
		ITEM DESCRIPTION		ACCEPTANCE CRITERIA								REMARKS	
		☒ Check required / check carried out		[Drw./ Specs. Ref.; Tolerances; Characteristics]				C		DNC			
1		☒ DRAWINGS		Approved and current				☐		☐			
2		☒ PREVIOUS WORKS: STARTER BARS		Drawing				☐		☐			
3		☐ REBENDING: STARTER BARS, OTHERS		MS CQP-4.40_C.MS-RCR-001				☐		☐			
4		☒ BAR SIZES AND DIMENSIONS [*]		Drawing; Bending Schedules				☐		☐			
5		☒ NUMBERS [*]		Drawing				☐		☐			
6		☒ POSITION		Drawing				☐		☐			
7		☒ CLEAR DISTANCE BETWEEN BARS		MS CQP-4.40_C.MS-RCR-001				☐		☐			
8		☐ WELDING						☐		☐			
9		☒ SPLICES		Position and method as per drawings				☐		☐			
10		☒ CONCRETE COVER		Drawing; min.:				☐		☐			
11		☒ SPACERS, CHAIRS		MS CQP-4.40_C.MS-RCR-001, Att.1				☐		☐			
12		☒ CLEANLINESS		No excessive rust; no earth, oil, grease, mortar, paint				☐		☐			
13		☒ OPENINGS FOR CONCRETING		MS CQP-4.40_C.MS-RCR-001				☐		☐			
14		☐ THREAD LENTON INSTALLATION						☐		☐			
		Type	Coupler	Installation Torque [NM]									
		G_12	EL-12-A12	40		Acc. Drwgs., Specs.		☐		☐			
		G_16	EL-16-A12	120		Acc. Drwgs., Specs.		☐		☐			
		G_20	EL-20-A12	180		Acc. Drwgs., Specs.		☐		☐			
		G_25	EL-25-A12	270		Acc. Drwgs., Specs.		☐		☐			
		G_32	EL-32-A12	300		Acc. Drwgs., Specs.		☐		☐			
NOTES [*] specify under 'NOTES' the sections/bar shapes checked under this item _____ _____ _____													

Tick box as appropriate; tick both boxes if initial inspection is unsatisfactory

C : Complies; DNC : Does Not Comply;

SUPERVISOR [NAME/SIGN/DATE] SIGN DATE	INSPECTED / APPROVED [NAME/SIGN/DATE] SIGN DATE
--	--

Inspection and Test Procedures/ Plan:
ITP-200: Cast In-situ Concrete Work [CIC]

CONCRETE POUR REPORT [CPR]								LOT. NO. CIC /		
LOCATION / ELEMENT DESCRIPTION										
CONCRETE SUPPLIER / PLANT:					QTY. REQUIRED: m³		CASTING DATE:			
GRADE (fck,cube): N/mm²		MIX DESIGN CODE:		WEATHER: ☐ SUNNY ☐ CLOUDY ☐ RAINING				AMBIENT TEMP.: ° C		
S/N	BATCH NO. Docket No.	DEPT. PLT. [Time]	ARR. SITE [Time]	DISCHARGE TIME from until		QUANTITY [m ³] Truck Cumulated		FLOW [cm]	TEMP. [C°]	SAMPLES / REMARKS Nos. / Marking
1					--					
2					--					
3					--					
4					--					
5					--					
6					--					
7					--					
8					--					
9					--					
10					--					
11					--					
12					--					
13					--					
14					--					
15					--					
16					--					
17					--					
18					--					
19					--					
20					--					
21					--					
22					--					
23					--					
24					--					

NOTES

RECORDED BY[SIGN/DATE]	SITE SUPERVISOR / SITE ENGINEER [SIGN/DATE]
------------------------------	---

CMS: Reinforced Concrete Works - Reinforcement Installation
Attachment

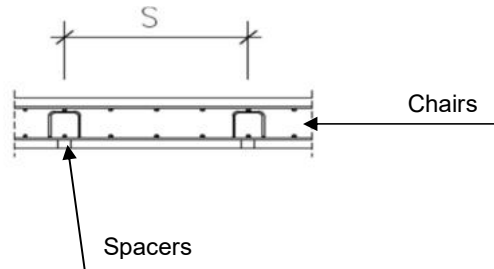
SUPPORT CHAIRS AND SPACERS

CONCRETE SLABS

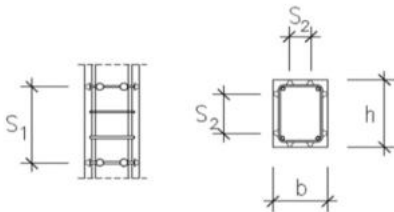
Supports for top reinforcement
and spacers for bottom reinforcement

Spacings of spacers and 'chairs'

Supported re-bars d_s [mm]	Spacers			Chairs max s
	by spot		by lines	
	max s	pcs/m ²	max s	
≤ 6.5	50cm	4	50cm	50cm
> 6.5	70cm	2	70cm	70cm



COLUMNS, BEAMS



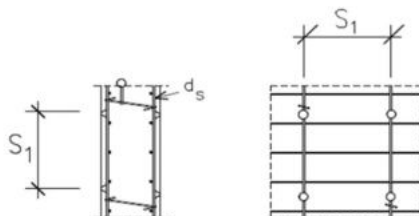
Spacing s of spacers, max s₁ in longitudinal direction

Longitudinal bars d_s	Columns	Beams	
≤ 10mm	50cm	25cm	
12-20mm	100cm	50cm	
> 20mm	125cm	75cm	

Spacing s of spacers, max s₁ in transverse direction

b resp. h	Columns	Beams	
≤ 100cm	2	2	
> 100cm	≥ 3	≥ 3	
max s	75cm	50cm	

WALLS



Spacings and numbers

Main-bars d_s	Spacers		S-hooks	Position securing U-hook ²⁾
	max s ₁	pcs/m ² wall ¹⁾	pcs/m ² wall	pcs/m ² wall
≤ 8 mm	70cm	4	1	1
10-16 mm	100cm	2	1	1
> 16 mm	100cm	2	4	1

¹⁾ at each wall side

²⁾ as specified on drawing

Region Central and North Projects

Quality Management System Documentation

INSPECTION AND TEST PROCEDURE

RCN_ITP-220
PRECAST CONCRETE INSTALLATION
[PCI]

Where this page exhibits the words, “Controlled Copy” this means:

- 1) Distribution is centralised - in this case from the Quality Manager [QM]
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- 4) Copyholders will be automatically issued with any amendments. Responsibility for incorporating such amendments rests with the copyholder.

DOCUMENT REVIEW AND APPROVAL THIS ISSUE

REV.	DATE	DESCRIPTION	Date	Sign.	Date	Sign.	Date	Sign.
			PREPARED		REVIEWED		APPROVED	
0.1	xx-yy-2026	Draft	QM		PM		RTM	

DOCUMENT REVISION HISTORY

S/N	REV.	DESCRIPTION	PREPARED	REVIEWED	APPROVED

TABLE OF CONTENT

Cover Page	1
Document Revision History	2
Table of content.....	3
1 PURPOSE, SCOPE.....	4
2 DEFINITIONS, ABBREVIATIONS	4
2.1 Definitions	4
2.2 Abbreviations	4
3 RESPONSIBILITIES	4
4 REFERENCES	5
4.1 Quality System Documentation	5
4.1.1 Quality Management System Documentation.....	5
4.2 Contract Documents	5
4.3 Others	5
5 PROCEDURES	5
5.1 Precast Concrete Production	5
5.2 Precast Concrete Installation	5
5.3 Works' Control, Inspection and Testing.....	6
5.4 Conformance Verification, Documentation, Certification.....	6
5.4.1 Certification.....	6
6 DOCUMENTATION, QUALITY RECORDS	6
7 FORMS	7
8 ATTACHMENTS.....	7

1 PURPOSE, SCOPE

(1) To set out the procedures for inspecting and testing precast concrete installation to ensure all works are carried out in accordance to the contract specifications and drawings.

(2) The procedures shall be applicable for all precast concrete installation in the project.

2 DEFINITIONS, ABBREVIATIONS

2.1 DEFINITIONS

Definition of terms used within this document are defined in the referenced QMS documents.

2.2 ABBREVIATIONS

JBN	Julius Berger Nigeria Plc
QMS	Quality Management System
ER	Employer's Representative
RCN	Region Central and North
ITP	Inspection and Test Procedure
QA/QC	Quality Assurance / Quality Control
HSE	Health, Safety and Environment
CQP	Corporate Quality Procedure

3 RESPONSIBILITIES

(1) Project Manager shall introduce the procedures and ensure all personnel involved in precast concrete installation are inducted and aware of the requirements set out herein.

(2) Project Technical Office Engineer, QA/QC Manager, Site Manager, Site Supervisors, and Surveyor shall be responsible to implement the procedures as further detailed in the Inspection and Test Plan.

(3) Laboratory Supervisor shall implement the procedures and ensure test equipment is documented, controlled and calibrated in accordance with relevant CQPs.

4 REFERENCES

4.1 QUALITY SYSTEM DOCUMENTATION

4.1.1 Quality Management System Documentation

- (1) Corporate Quality Manual
- (2) Corporate Quality procedure
 - CQP-440: Construction Control
 - CQP-520: Control of Non-conforming Work
- (3) Quality Management Plan

4.2 CONTRACT DOCUMENTS

- (1) General Specifications and Requirements
- (2) Approved Drawings

4.3 OTHERS

None

5 PROCEDURES

5.1 PRECAST CONCRETE PRODUCTION

- (1) Precast Concrete Production is covered by Inspection and Test Procedure ITP-201: Precast Concrete Production

5.2 PRECAST CONCRETE INSTALLATION

- (1) Precast Concrete Element shall be stored at least 10cm above the ground
- (2) The location, section and numbers of elements to be installed should be consistent with drawing and installation program
- (3) Precast Concrete surface shall be without defects. If noticed, the surface shall be repaired.
- (4) Survey department shall check and document the as-built survey to confirm correct position, orientation, elevation and verticality of the precast concrete member
- (5) Bracing and fixing of element shall be consistent with drawing and installation program

Inspection and Test Procedure
ITP-220: Precast Concrete Installation [PCI]

- (6) Confirm connection of line network, service pipes and other utilities are consistent with drawing and installation program
- (7) Place, spread and backfill with material to designated finishing levels. Backfilling of material is covered properly in ITP-150: Site Clearance and Earthworks.
- (8) Repair and apply cosmetic treatments; seal of pores and roughness

5.3 WORKS' CONTROL, INSPECTION AND TESTING

- (1) Conformity verification of Precast Concrete Production works shall be in accordance with Inspection and Test Procedure ITP-201.

5.4 CONFORMANCE VERIFICATION, DOCUMENTATION, CERTIFICATION

- (1) Conformance verification, inspection, testing and documentation shall be done for each 'Lot of work' in accordance with the scope and details defined in the 'Inspection and Test Plan'.
- (2) The boundaries that define one lot of "Pre-Cast Concrete Installation" shall be

➤ **Lot. No.: PCI / AAA / YYY / ZZZ**

PCI Type of Work code
AAA Work section Identification
YYY Pre-Cast element identification
ZZZ Consecutive IPC number

5.4.1 Certification

- (1) Certification of conformity shall be with the Project Management, e.g.
 - All checks carried out, all works conforming
 - All testing carried out, documented and results conforming
 - All documentation completed and available
 - All non-conformances (if any) closed out.

6 DOCUMENTATION, QUALITY RECORDS

The following documents generated under this procedure are quality records and shall be retained by Project Management

- (1) Conformance Report
- (2) Reinforcement Check Sheet
- (3) Concrete Pour Report
- (4) Lot Register

Inspection and Test Procedure
ITP-220: Precast Concrete Installation [PCI]

- (5) Concrete compressive strength records
- (6) As-built survey records
- (7) QS Measurement

Distribution of copies (C) and/ or original documents (O) for archiving shall be as defined below

Bold face print indicates project archiving responsibilities.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
QA/QC Manager	(O)	(O)	(O)	(O)	(C)	--	--
Laboratory	--	--	--	--	(O)	--	--
Survey Department	--	--	--	--	--	(O)	--
QS Department	--	--	--	--	--	--	(O)

Alternatively, as defined by Project Management.

7 FORMS

- (1) RCN_ITP-220_BF-01: Conformance Report
- (2) RCN_ITP-220_BF-02: Lot Register

8 ATTACHMENTS

- (1) Forms of Section 7
- (2) RCN_ITP-220_ITPIn: Inspection and Test Plan

RCN_MST-100: Building Construction Works

Region Central and North Projects

CONSTRUCTION METHOD STATEMENT

RCN_MST-100

BUILDING CONSTRUCTION WORKS

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- 4) Copyholders will be automatically issued with any amendments. Responsibility for incorporating such amendments rests with the copyholder.

REVIEW CHECKLIST		OK	N/A	(**)	REMARKS
1	Document layout and presentation	✓			
2	Designs, calculations, assessments	✓			
3	Characteristics, tolerance and workmanship standards	✓			
4	Construction sequence / method	✓			
5	Temporary works	✓			
6	Plant, labour and materials	✓			
7	Interfaces between trades / other works	✓			
8	Hazard analysis	✓			
9	Safety (public, workers, property)	✓			
10	Environmental protection	✓			
11	Inspection and Test Procedure / Plan	✓			
12	Inductions	✓			
(**)		THIS COLUMN IS USED WHEN EXISTING PROJECT DOCUMENTATION ALREADY COVERS CHECKLIST REQUIREMENTS. NOTE THE DOCUMENTATION IN THE REMARKS COLUMN			

REV.	DATE	DESCRIPTION	Date PREPARED	Sign.	Date REVIEWED	Sign.	Date APPROVED	Sign.
1.0	xx-xx-2022	Issued for use		QM		TM		PM

RCN_MST-100: Building Construction Works

DOCUMENT REVISION HISTORY

S/N	REV.	DESCRIPTION	PREPARED BY / DATE	REVIEWED BY / DATE	APPROVED BY / DATE
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ISSUE 1

1	0.1	Draft	QM		
2	0.2	Draft Final Review	QM	TM	

SAMPLE

RCN_MST-100: Building Construction Works

Table of Contents

1	PURPOSE AND SCOPE	5
2	RESPONSIBILITIES	5
3	REFERENCES	6
3.1	JBN PLC QUALITY SYSTEM DOCUMENTATION	6
3.1.1	Plans, Manuals	6
3.1.2	Project Quality Procedures	6
3.1.3	Inspection and Test Procedures	6
3.2	CONTRACT SPECIFICATIONS	6
4	BUILDING CONSTRUCTION WORKS	7
4.1	GENERAL	7
4.2	EARTHWORKS	7
4.3	CAST INSITU CONCRETE WORKS	7
4.3.1	Reinforcement Cutting, Bending and Delivery	7
4.3.2	Reinforcement Fixing and Placing	8
4.3.3	Formwork / Scaffolding	9
4.3.4	Embedded item	9
4.3.5	Concreting	9
4.4	PRECAST CONCRETE INSTALLATION	10
4.5	MASONRY	11
4.5.1	Block work	11
4.5.2	Mortar	11
4.5.3	Grouting	11
4.6	FINISHING WORKS	12
4.6.1	Plastering and Screeding	12
4.6.2	Tiling	12
4.6.3	Suspended Ceiling and Raised Floor	12
4.6.4	Painting	13
4.6.5	Doors and Windows	13
4.7	EQUIPMENT AND TOOLS	14
4.8	PERSONNEL	14
5	HAZARD ANALYSIS	14
6	QUALITY ASSURANCE, QUALITY CONTROL	15

RCN_MST-100: Building Construction Works

6.1	PERSONNEL	15
6.2	EQUIPMENT	15
6.3	WORKS CONTROL AND DOCUMENTATION	15
7	SAFETY, ENVIRONMENT.....	16
7.1	SAFETY	16
7.2	ENVIRONMENT	16
8	FORMS.....	16
9	ATTACHMENTS.....	17

SAMPLE

1 PURPOSE AND SCOPE

- (1) The Purpose of this Method Statement is to describe the general method and required control for the construction of buildings or structures and reinforced concrete works under the Region Central and North (RCN) Building Projects; ensuring compliance with approved designs, drawings and specification.
- (2) This Method Statement shall be applicable to all building construction works (such as cast in-situ concrete works, precast concrete works masonry works, plastering, screeding, grouting etc.) on all Projects under RCN.

2 RESPONSIBILITIES

- (1) The PROJECT MANAGER shall be responsible to introduce the procedure.
- (2) The CONSTRUCTION MANAGER is responsible to ensure that all personnel involved in the works are inducted and aware of the requirements defined in this method statement as well as provide the necessary information, plant, labour and equipment to enable the construction team to perform the physical work in a safe and efficient manner.
- (3) BATCH PLANT / LABORATORY MANAGER shall be responsible
 - To ensure that all personnel involved in the control, verification and documentation of concrete as well as mortar and grout production, sampling and testing, are inducted into the procedure and aware of the requirements set out herein.
 - Ensure all measuring and test equipment is documented, controlled and calibrated in accordance to Corporate Quality Procedure (CQP) 470: Control of Measuring and Test Equipment.
 - Carry out all sampling and testing in accordance with ITP-010: Concrete Production and Supply, Sampling and test plan [RCN_ITP-010]
 - Perform testing on witnessed point bases as shown in Inspection and test plans [RCN_ITP-010_ITPlan] and [RCN_ITP-200_ITPlan].
- (4) SAFETY MANAGER shall be responsible to advise line management on all aspects of safety as defined in the Project Safety Plan.
- (5) SURVEYOR shall be responsible to carry out necessary survey works, including setting out of reference points and elevations where necessary and survey checks during the execution of the works to ensure the correct orientation, lines and levels are achieved for all building construction works on site.
- (6) Designated SUPERVISORS shall be responsible for the building construction works on site. They have to perform these works in a safe and efficient manner and in accordance with the contract requirements. They shall be responsible to establish and maintain all records as further defined in this Method Statement. They have to ensure that all employees involved in buildings construction works

RCN_MST-100: Building Construction Works

carry out the work in accordance with this Method Statement and relevant project drawings.

- (7) The Project QA/QC Manager shall be responsible to ensure inspection and testing of the works as required by this method statement and all relevant inspection and test procedures associated with building construction works.

3 REFERENCES

3.1 JBN PLC QUALITY SYSTEM DOCUMENTATION

3.1.1 PLANS, MANUALS

- (1) Project Quality Management Plan
- (2) Project HSE Plan

3.1.2 PROJECT QUALITY PROCEDURES

- (1) Corporate Quality Procedure CQP-440: *Construction Control*
- (2) Corporate Quality Procedure CQP-470: *Control of Measuring and Test Equipment*
- (3) Corporate Quality Procedure CQP-520: *Control of Non-Conforming Works*

3.1.3 INSPECTION AND TEST PROCEDURES

- (1) Inspection and Test Procedure ITP-010: Concrete Production and Supply [RCN_ITP-010]
- (2) Inspection and Test Procedure ITP-040: Reinforcement Supply [RCN_ITP-020]
- (3) Inspection and Test Procedure ITP-150: Earthworks [RCN_ITP-150]
- (4) Inspection and Test Procedure ITP-200: Structural Concrete Works [RCN_ITP-200]
- (5) Inspection and Test Procedure ITP-220: Precast Concrete Structures Installation [RCN_ITP-220]

3.2 CONTRACT SPECIFICATIONS

- (1) Contract
- (2) Bill of Engineering Measurement and Evaluation [BEME]

4 BUILDING CONSTRUCTION WORKS

4.1 GENERAL

- (1) Production and supply of concrete mix and precast concrete element shall be in accordance with inspection and test procedure ITP-010: Concrete Production and Supply, and Inspection and Test Procedure ITP-020: Production of Precast Concrete Elements as well as all relevant project drawings.
- (2) Reinforcing steel for the works shall be in accordance to inspection and test procedure ITP-040; Reinforcing Steel Supply.

4.2 EARTHWORKS

- (1) Ensure location and dimensions according to drawing is marked out before excavation.
- (2) Remove existing structures above ground level and rubble cart away
- (3) Carry out Topographic survey to establish 'Existing ground level'
- (4) Excavate minimum 90cm below ground level and rubble cart away
- (5) Identify unsuitable material through laboratory analysis, remove unsuitable material and cart away
- (6) Establish Construction Start Level
- (7) Backfill with approved suitable material to established level and compact to requirement
- (8) Fill and backfill materials shall be subjected to compaction tests to demonstrate that the compaction meets all the specified requirements.
- (9) Compaction shall be done in accordance with applicable standards or as approved in the drawing.

4.3 CAST INSITU CONCRETE WORKS

4.3.1 REINFORCEMENT CUTTING, BENDING AND DELIVERY

- (1) Conformity of all reinforcement steel supplied shall be certified according to Inspection and Test Procedure ITP-040: Reinforcing Steel Works and Supply
- (2) Confirm Construction Drawings and Bending Schedule
- (3) Cut and bent rebar complying to bending schedule and bar mark / position clearly identifiable against schedule.
- (4) Bending radii, dimensions shall be in compliance with drawing / bar bending schedule / specification.

RCN_MST-100: Building Construction Works

- (5) Storage area for rebar on site shall be prepared and off the ground.



Figure 1: Tagged Reinforcement steel supplied to site from AID **Figure 2:** Storage of reinforcement off the ground

4.3.2 REINFORCEMENT FIXING AND PLACING

- (1) Number, size, form and position of reinforcement shall be according to the drawing and bar bending schedule.
- (2) Confirm rebar dimensions per bar mark position (length, diameter, numbers)
- (3) Confirm arrangement, position and spacing of rebar
- (4) Confirm bends, splicing, lap length according to drawing
- (5) Confirm stirrups / spiral bar diameter and pitch
- (6) Confirm concrete cover, spacers, support chairs
- (7) Welding as approved by Employer/Engineers representative.
- (8) Confirm cleanliness of rebar prior concreting



Figure 3: Reinforcement Fixing and Placing

RCN_MST-100: Building Construction Works

4.3.3 FORMWORK / SCAFFOLDING

- (1) Formwork method and design shall be in accordance with approved specification.
- (2) Position and dimension of formworks shall be within tolerance
- (3) Formwork shall be sufficiently rigid and watertight to prevent loss of grout
- (4) Formwork cleaned and release agent applied with approved material
- (5) Block outs, recesses; position shall be within tolerance and dimension
- (6) Formwork shall be tied and braced
- (7) Formwork shall be designed as to be readily removed without shock and damage to concrete.

4.3.4 EMBEDDED ITEM

- (1) Type, position and dimension shall be in accordance with drawings and specified to tolerance
- (2) Confirm joints preparation and position is according to drawing and specification.

4.3.5 CONCRETING

- (1) Prior to pouring, ensure all procedure outlined conform to drawings and specifications
- (2) Confirm concrete class and mix is in accordance with drawing and mix specified
- (3) Concrete ordered with separate and intervals between each single mixer truck defined
- (4) Temperature of fresh concrete checked for each pour and in accordance with requirements
- (5) Method of concrete placing defined and arrangements in place
- (6) Equipment and tools in place and functioning e.g. concrete pumps, pipes, vibrators, water pumps, etc.
- (7) Concrete deliveries checked against order and properly recorded by use of "Concrete Pour Report" form
- (8) Concrete shall be placed and compacted in its final position and concreting shall be carried out continuously up to the end or joints
- (9) Vibration shall be carried out such that it prevents segregation in concrete



Figure 4: Pouring of Concrete

4.4 PRECAST CONCRETE INSTALLATION

- (1) Precast Concrete Element shall be stored at least 10cm above the ground
- (2) The location, section and numbers of elements to be installed should be consistent with drawing and installation program
- (3) Precast Concrete surface shall be without defects. If noticed, the surface shall be repaired.
- (4) Survey department shall check and document the as-built survey to confirm correct position, orientation, elevation and verticality of the precast concrete member
- (5) Bracing and fixing of element shall be consistent with drawing and installation program
- (6) Confirm connection of line network, service pipes and other utilities are consistent with drawing and installation program
- (7) Place, spread and backfill with material to designated finishing levels. Backfilling of material is covered properly in ITP-150: Site Clearance and Earthworks.
- (8) Repair and apply cosmetic treatments; seal of pores and roughness.

RCN_MST-100: Building Construction Works

4.5 MASONRY

4.5.1 BLOCK WORK

- (1) Concrete blocks shall be of adequate size as shown in the relevant project drawings.
- (2) Connection of masonry units to concrete shall be as shown in the drawing.
- (3) Masonry units shall be placed in the correct positions, plumb, level and in proper alignment.
- (4) Where it is required to cut masonry units, they shall be properly cut to size using motor drive saw. Such saw shall be checked and confirmed to be fit for use and shall be operated only by a competent person, appointed by the responsible supervisor.
- (5) Building items such as frame anchors (Halfen Anchors) shall be fully embedded in mortar joints.
- (6) Masonry block units shall be placed in full mortar on both horizontal and vertical face shells. All joints must be of uniform thickness.
- (7) Where specified in the relevant project drawings, joints between masonry units shall be adequately reinforced as shown in the drawings.

4.5.2 MORTAR

- (1) Mortar for installation of masonry block units shall be of an approved mix design and shall fulfil the design requirements.
- (2) Mortar shall be used within three hours after mixing. Remixing of mortar by unauthorized persons shall not be allowed.
- (3) Mortar shall be discarded after initial set has taken place.

4.5.3 GROUTING

- (1) Where grouting is required in building construction works, only non-shrink cement based grout of an approved mix design or manufacturer shall be used.
- (2) Surfaces to be grouted shall be properly cleaned, free of oils, grease, dirt and other harmful substances.
- (3) Formworks for grout shall be of adequate size, watertight and securely fixed to withstand pressure.
- (4) Grout shall be placed quickly and continuously, completely filling the voids without segregation and / or air pockets.
- (5) Grout shall be properly cured in accordance with the specification “DIN 1045”.

4.6 FINISHING WORKS

4.6.1 PLASTERING AND SCREEDING

- (1) Mortars for plastering and screeding shall be of an approved mix design and shall be sufficiently workable.
- (2) Surfaces to be plastered as well as those to be screeded shall be clean, free from defects, free of all forms of oils and grease, free of organic matter and other injurious substances.
- (3) Masonry surfaces to be plastered and screeded shall be sufficiently dampened before application of plastering mortar.
- (4) Prior to commencement of screeding, surfaces shall be roughened where required, cleaned and dampened. Where bonding agents are required, they shall be applied in accordance to the manufacturer's recommendations.
- (5) Floor screeds shall be properly cured in accordance to specification "DIN 1045"
- (6) Plastering and screeding of walls and slabs for buildings shall be done taking into consideration, the installation of other materials such as bituminous membranes for moisture protection, PE foil, soft boards, joint sealants, etc. See referenced Material Approval Sheets as well as relevant project drawings for details.
- (7) The thickness of interior and exterior plaster shall be 15mm and 20mm respectively in accordance to project drawings.

4.6.2 TILING

- (1) Confirm tile materials upon delivery and before use is of approved material
- (2) Confirm adhesive bonding material upon delivery and before application is of approved material
- (3) Ensure substrate condition is within tolerance and without damages.
- (4) Verify installation works completed conform to drawings
- (5) Ensure wall and floor tile joints, patterns and joint widths conform to drawings
- (6) Joints between tiles shall be sealed with approved material
- (7) Verify approved material for skirting and its execution is in accordance to requirement
- (8) Confirm completed tiling surface; bonding and surface regularity is conforming and within tolerances
- (9) Ensure the tile area surfaces are adequately protected against damage.

4.6.3 SUSPENDED CEILING AND RAISED FLOOR

- (1) The materials shall be checked to ensure they conform to requirements and are of approved materials
- (2) The layout and installation of the suspension system shall be in accordance with drawings

RCN_MST-100: Building Construction Works

- (3) All accessories such as hangers, clips and inserts shall be installed properly (in accordance to manufacturer's recommendation).
- (4) Confirm completion of overhead works: ceilings, electrical installations, others etc.
- (5) Ensure raised floor installation materials are as approved and available.
- (6) Subfloor condition shall be clean, free of dust, grease, oil and even; surface sealed
- (7) Raised floor installation shall be carried out in accordance with drawings and manufacturer's instructions.
- (8) Electric insulations
- (9) Carryout final adjustments and corrections on completed works in accordance with manufacturer's recommendations.

4.6.4 PAINTING

- (1) Paint material to be applied for painting works shall be of approved material
- (2) Prior to application of paints, surfaces shall be clean, dry and free of dust in accordance with paint supplier instruction.
- (3) Paint materials shall be mixed and applied in accordance to manufacturer's recommendation.
- (4) Each layer of paint shall achieve cure according to manufacturer's recommendation before another layer of paint may be applied.
- (5) Care shall be taken during painting works to achieve it effective paint life.

4.6.5 DOORS AND WINDOWS

- (1) Doors and windows delivered shall be of required material, shape, size and function
- (2) Prior to installation, door and window frames shall be of adequate size, material, properly installed in accordance with requirement and specification.
- (3) Doors and windows installation shall be carried out in accordance with the manufacturer's recommendation and in the sequence advised by the manufacturer.
- (4) Check and verify door and window installations function properly as required.
- (5) Ensure door accessories such as door locks, handles and others are neatly fitted and secured in place.
- (6) The doors and windows installed shall conform to requirements and shall present a clean appearance.

RCN_MST-100: Building Construction Works

4.7 EQUIPMENT AND TOOLS

- (1) Equipment and tools for Construction Works shall be checked to be fit for use and suitable for its intended purpose. This shall be ensured by the Plant and Equipment manager as well as the responsible supervisor.
- (2) Lifting Equipment and all associated accessories shall be of sufficient capacity with respect to the weight of materials they are intended to lift.
- (3) Cranes, forklifts and Trucks shall be used in transporting materials such as precast element, masonry block units. All Equipment for lifting and transportation shall meet the requirements in items (1) and (2) above.
- (4) Mixing of grout, mortar and concrete shall be done using a rotary type mixer and the batching plants respectively. Production of concrete, mortar and grout shall be in accordance to inspection and test procedure ITP-010: Concrete Production and Supply [RCN_ITP-010]. Mixer trucks shall be used for supply of concrete and mortar to site.
- (5) Specific working tools such as ranges, trowels, plumbs etc. (for masonry works) shall be sufficient for their work purpose and shall be properly maintained by the work group and responsible supervisor.

4.8 PERSONNEL

- (1) Personnel carrying out activities under this method statement shall consist of experienced expatriate as well as skilled and unskilled Nigerian Personnel of senior and junior status.

5 HAZARD ANALYSIS

- (1) Hazards associated with the use of faulty equipment, the wrong equipment for a particular task and the operation of equipment by unauthorized persons or persons with questionable character must be prevented at work areas where buildings constructions works are ongoing.
- (2) Authorized persons shall operate equipment used for Building construction works only. Such persons shall be competent and skilled in the usage of the specific equipment, shall be of good conduct and shall be free of drugs and alcohol at all times.
- (3) All Personnel involved in building construction works shall adhere to all project safety rules and ensure that tasks are carried out in a safe and efficient manner.
- (4) Work areas shall be kept clean at all times. Supervisors shall ensure proper housekeeping around areas where building construction works are in progress. Off-cuts of building materials as well as debris of other kinds and sources shall be removed and properly disposed.

RCN_MST-100: Building Construction Works

- (5) Floors shall be kept dry to prevent slip hazards. Harmful substances such as chemicals shall be swept away or cleaned off the surface of the floor.
- (6) Proper illumination of work areas in buildings is essential for safe work practice. Working areas shall be sufficiently illuminated.
- (7) **For effective execution of building construction works at heights above 1.8m, scaffolds shall be provided; taking the following points into consideration**
 - (01) Scaffolds shall be erected, altered and dismantled by competent persons who shall be appointed by the responsible supervisor. All such erections and alterations shall be done in line with the project safety regulations.
 - (02) Workers on scaffolds shall wear their safety harnesses at all times and tie off properly (where practicable) to eliminate the risk of fall from heights.
 - (03) Scaffold discrepancies shall be reported to the responsible supervisor who shall ensure that such discrepancies are corrected. Upon completion of corrections, a JBN HSE representative shall carry out a re-inspection.

JBN Plc shall give priority to all necessary actions required for resumption of the works taking into consideration the safety of all personnel, in the case that an interruption occurs.

6 QUALITY ASSURANCE, QUALITY CONTROL

6.1 PERSONNEL

- (1) The responsible supervisor and JBN QA/QC representative will carry out quality inspections.

6.2 EQUIPMENT

- (1) The equipment and tools used for the works represents the state of the art for the particular job requirements
- (2) Maintenance plans for key equipment will be established and strictly observed to ensure continual equipment availability
- (3) All equipment used for measuring and testing shall be controlled in accordance to corporate quality procedure CQP-470: Control of measuring and test equipment.

6.3 WORKS CONTROL AND DOCUMENTATION

- (1) Buildings construction works will be controlled and documented in accordance to Inspection and Test Procedure for all Types of Works [ToW]

RCN_MST-100: Building Construction Works

7 SAFETY, ENVIRONMENT

7.1 SAFETY

- (1) The works will be carried out in accordance with the Project HSE Plan
- (2) The Project management is committed to ensure a safe working environment and all workers involved in the works shall comply with the Project safety regulations.
- (3) For the particular works, attention is drawn to the following
 - (01) Personal Protective Equipment, in particular hard hats, hand gloves, eye protection, and protective footwear is worn at all time (OBLIGATORY FOR ANY WORK)
 - (02) No passing underneath loads
 - (03) Take special care when working near driving rig or crane
 - (04) For any activity in a height above 1.8m, securing with safety harness is obligatory
 - (05) Ear plugs, nose masks and safety goggles will be provided, where required
 - (06) Provision of first aid kit / Ambulance at the work site.

7.2 ENVIRONMENT

- (1) No toxic materials shall be used in executing building construction works
- (2) Waste materials and all trash generated on the work site shall be collected and properly disposed according to the project safety regulations.

8 FORMS

- (1) RCN_ITP-010-BF.01: Lot Register
- (2) RCN_ITP-010-BF.02: Conformance Report
- (3) RCN_ITP-020-BF.01: Lot Register
- (4) RCN_ITP-020-BF.02: Conformance Report
- (5) RCN_ITP-040-BF.01: Lot Register

RCN_MST-100: Building Construction Works

- (6) RCN_ITP-040-BF.02: Conformance Report
- (7) RCN_ITP-150-BF.01: Lot Register
- (8) RCN_ITP-150-BF.02: Conformance Report
- (9) RCN_ITP-200-BF.01: Lot Register
- (10) RCN_ITP-200-BF.02: Conformance Report
- (11) RCN_ITP-200-BF.03: Reinforcement Installation Check sheet
- (12) RCN_ITP-200-BF.04: Concrete Pour Report
- (13) RCN_ITP-220-BF.01: Lot Register
- (14) RCN_ITP-220-BF.02: Conformance Report
- (15) RCN_ITP-230-BF.01: Lot Register
- (16) RCN_ITP-230-BF.02: Conformance Report
- (17) RCN_ITP-250-BF.01: Lot Register
- (18) RCN_ITP-250-BF.02: Conformance Report

9 ATTACHMENTS

- (1) Forms of section 8

Quality Management System Documentation

Volume 3

CORPORATE QUALITY PROCEDURE

CQP-520

CONTROL OF NONCONFORMING PRODUCT

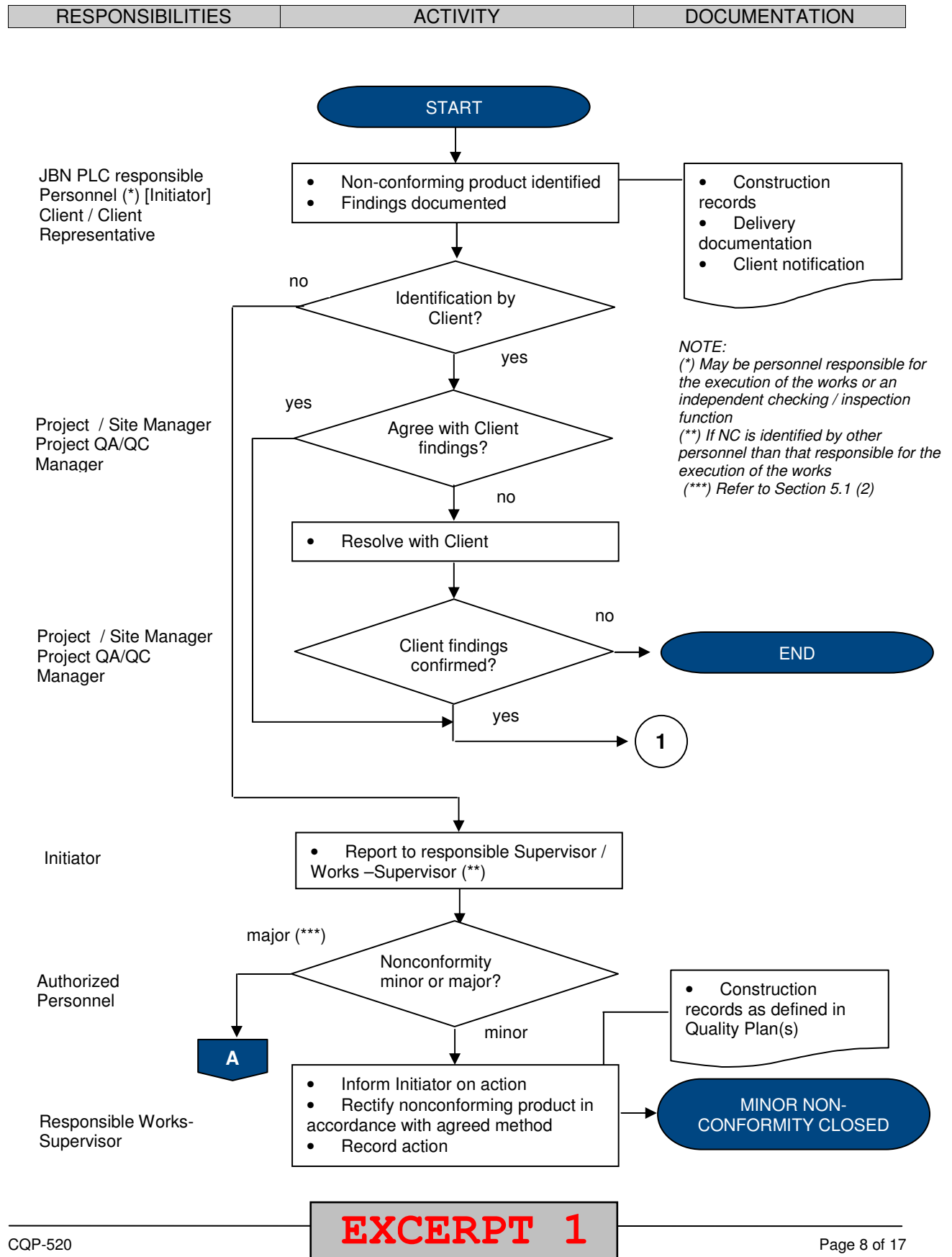
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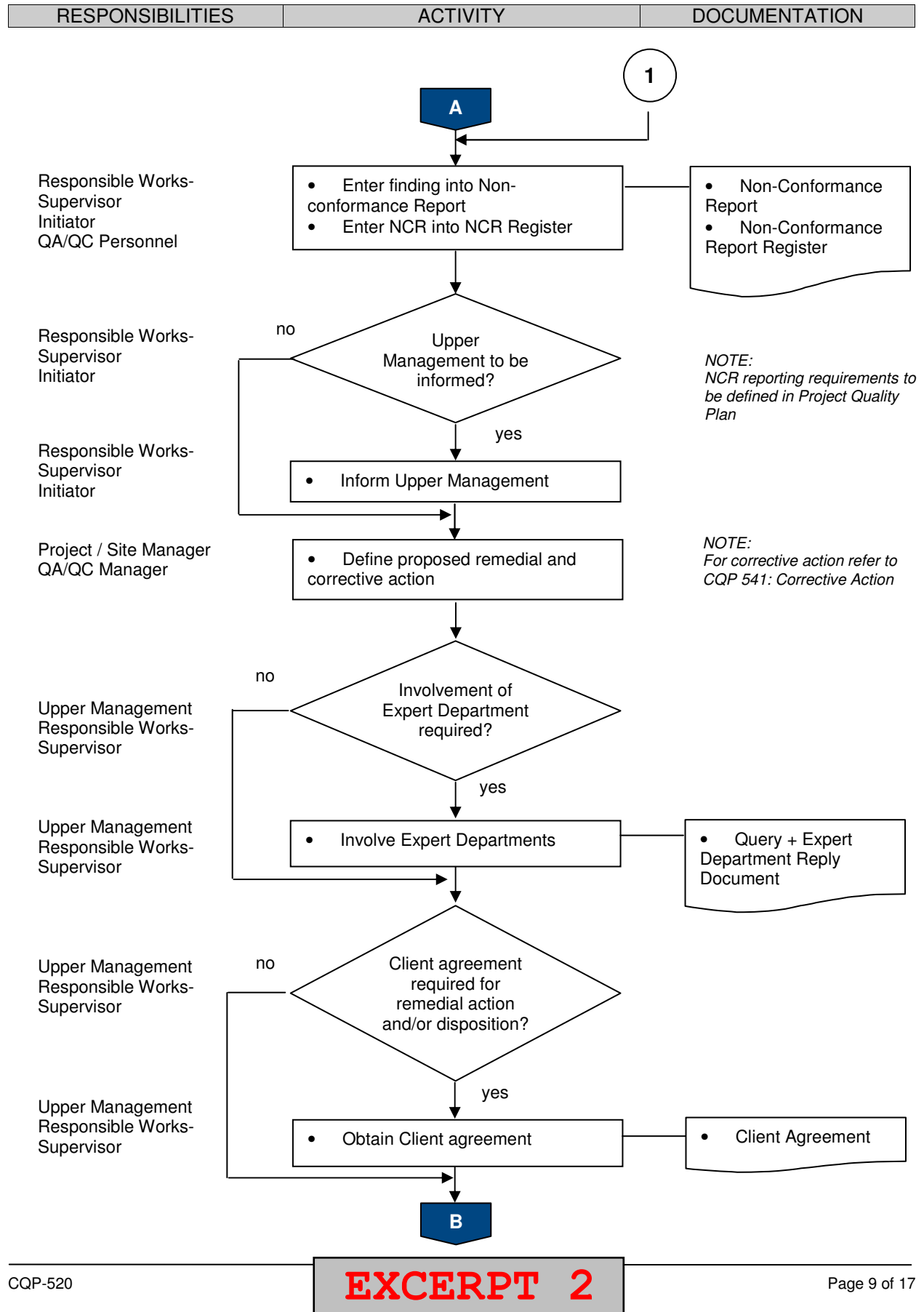
CQP- 520: Control of Nonconforming Product

Flowchart FC 5.2-1: Control of Nonconforming Product during Execution of Works



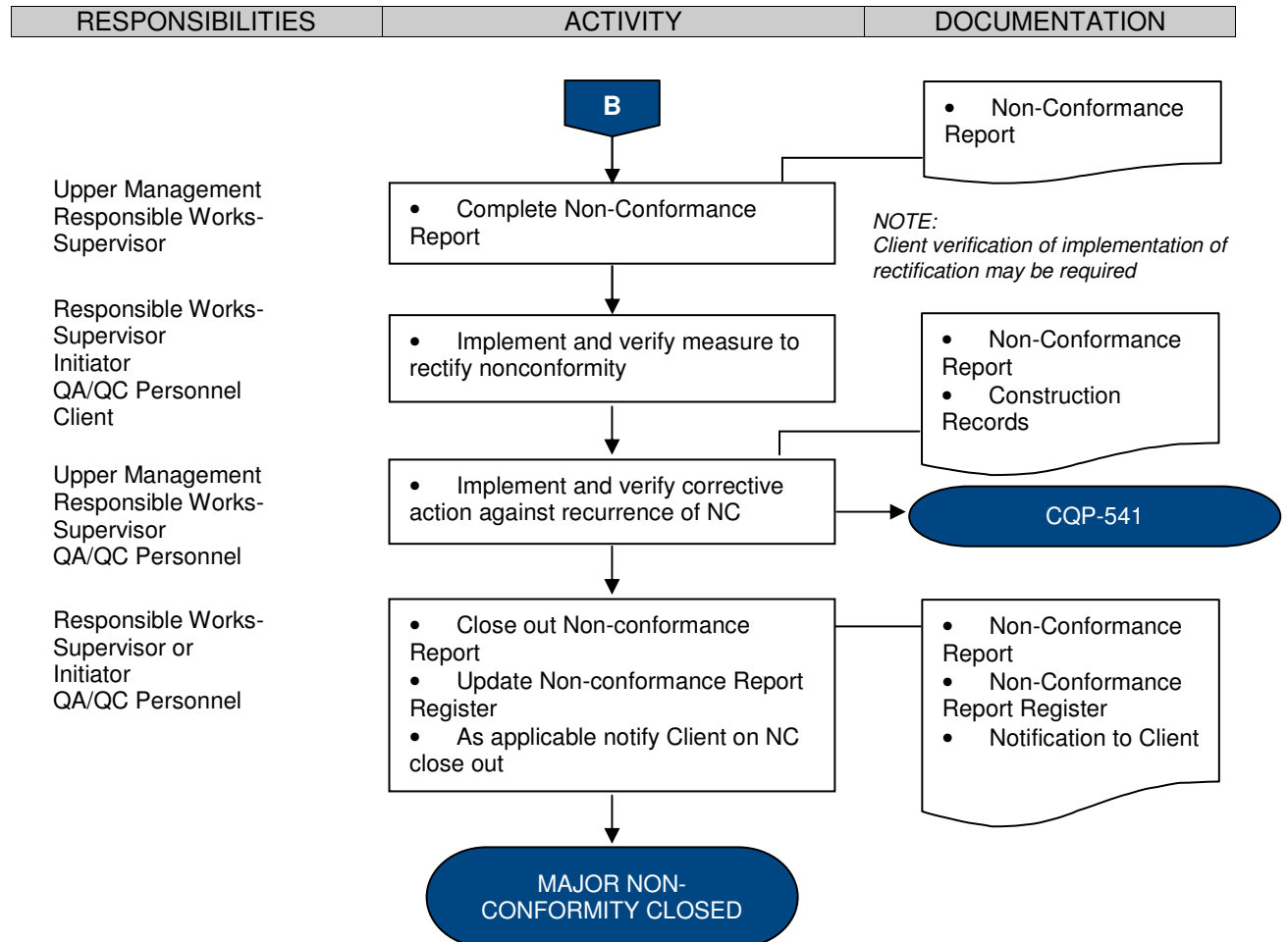
CQP- 520: Control of Nonconforming Product

Flowchart FC 5.2-1 cont'd.



CQP- 520: Control of Nonconforming Product

Flowchart FC 5.2-1 cont'd.



Non-conformance Report

NON-CONFORMANCE REPORT [NCR]		NCR No.: _____
Date raised: _____	by: _____	Date closed: _____
Work Area / Location / Part of Works _____		
PART A: 1. NON-CONFORMANCE [NC] DETAILS 		
WHICH DOES NOT CONFORM TO: _____ [Ref. Specifications, Drawing, etc.]		
2. NC-CLASSIFICATION [tick box as appropriate] (a) CONTINUATION OF SUBSEQUENT WORK ONLY AFTER APPROVAL OF REMEDIAL ACTION AND SATISFACTORY RECTIFICATION OF NC [PART B, C + D CLOSED OUT] ☐		
(b) CONTINUATION OF SUBSEQUENT WORK ONLY AFTER APPROVAL OF REMEDIAL ACTION [PART B + C CLOSED OUT] ☐		
PART B: PROPOSED ACTION PROPOSED BY _____ PROBABLE CAUSE OF NC: _____		
DISPOSITION: ☐ SCRAP[SC] ☐ RE-WORK [RW] ☐ REPAIR [RP] ☐ REGRADE [RG] ☐ USE AS-IS [UA]		
B1: Remedial Action on Particular NC 		
TO BE IMPLEMENTED BY _____ SIGN _____ DATE _____		
B2: Corrective Action to assure against Recurrence 		
TO BE IMPLEMENTED BY _____ SIGN _____ DATE _____		
PART C: APPROVAL OF PROPOSED ACTION		
B1: Remedial Action	BY _____	SIGN _____ DATE _____
B2: Corrective Action	BY _____	SIGN _____ DATE _____
PART D: FOLLOW UP AND CLOSE OUT		
B1: Remedial Action	BY _____	SIGN _____ DATE _____
B2: Corrective Action	BY _____	SIGN _____ DATE _____
COST OF NONCONFORMITY SIGN/DATE _____		



Non-conformance Report Register

NON-CONFORMANCE REPORT REGISTER											Type of Work		Per date:		Sheet:									
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