## CONTENTS

1. **INTRODUCTION**  
2. **CONTRACT ADMINISTRATION**  
3. **STAFF RESPONSIBILITIES**  
   3.1 GENERAL  
   3.2 PROJECT MANAGER  
   3.3 CONTRACT ADMINISTRATION ENGINEER  
   3.4 RESIDENT ENGINEERS  
   3.5 SURVEYOR  
   3.6 DESIGN ENGINEER  
   3.7 GEOTECHNICAL/MATERIALS ENGINEER  
   3.8 MATERIALS TECHNICIANS  
   3.9 INSPECTORS  
   3.10 OFFICE MANAGER  
   3.11 SECRETARY  
4. **CONTRACTUAL OBLIGATIONS**  
   4.1 BASIC CONTRACTUAL CONCEPTS  
   4.2 PROJECT MANAGER'S APPROVALS AND DIRECTIONS  
   4.3 DRAWINGS  
   4.4 SCHEDULES AND PROGRAMS  
   4.5 MEASUREMENT OF WORK  
   4.6 CONTROL OF CONTRACTOR'S SUB-CONTRACTS  
   4.7 REPORTS AND RECORDS
INDEX OF PROCEDURES

CA01 DELEGATIONS
CA02 FILE SYSTEM
CA03 FEEDBACK FROM PROJECT
CA04 CONTRACT REGISTERS
CA05 CONTRACTUAL CORRESPONDENCE
CA06 PROJECT COMMENCEMENT
CA07 ISSUE OF DRAWINGS AND OTHER DOCUMENTS
CA08 APPROVAL OF SUBCONTRACTORS
CA09 SITE INSTRUCTIONS
CA10 DAILY DIARIES AND REPORTS
CA11 HANOVER BOOK
CA12 QUALITY CONTROL - FIELD INSPECTION
CA13 SURVEY CHECKS
CA14 PHOTOGRAPHS
CA15 QUALITY AUDITS
CA16 SITE MEETINGS AND MINUTES
CA17 GENERAL MEETINGS
CA18 MONITORING OF PROGRESS
CA19 FINANCIAL PROGRESS MONITORING
CA20 PROGRESS REPORTS
CA21 MEASUREMENT AND CERTIFICATION OF QUANTITIES
CA22 INTERIM PAYMENTS
CA23 ISSUES
CA24 VARIATIONS
CA25 EXTENSIONS OF TIME
CA26 CONTRACTUAL CLAIMS AND DISPUTES
CA27 DAYWORKS
CA28 WORK-AS-EXECUTED DRAWINGS
CA29 CONTRACT COMPLETION
CA30 COMPLETION REPORT
CA31 ASSESSMENT OF CONTRACTOR’S PERFORMANCE
CA32 CONTRACT TERMINATION
REVISION STATUS

As necessary, authorised revisions will be issued to all holders of the document. Revisions shall take the form of replacement or additional pages. Upon receipt, revision pages are to be incorporated in this document and all superseded pages removed.

<table>
<thead>
<tr>
<th>Edition</th>
<th>Revision</th>
<th>Pages Affected</th>
<th>Description</th>
<th>Approved By</th>
<th>Issue Date</th>
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<tr>
<td>1</td>
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<td>All</td>
<td>Second edition</td>
<td>Gazelle Restoration Authority</td>
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</table>
INTRODUCTION

This Manual has been produced for the administration of construction contracts up to a value of K30 million. The procedures included in this Manual are based on the World Bank Conditions of Contract and are not suitable for use without revisions to take account of particular project contract requirements.

For complex works under such as marine works and water treatment plants or large scale works greater than K30 million, it may be preferable to use the FIDIC 4th Edition Conditions of Contract. In this case, this Manual must be amended before it can be used.

The contract documents take precedence over this Manual and in the event of any perceived conflict reference is to be made to the Project Manager for clarification.

Where this Manual refers to action to be taken by individual staff members, such action is to be taken only after due adherence of the staffing organisation for the project and in particular the delegated duties and responsibilities of the staff members for each contract.

Users of the Manual are invited to submit comments or to suggest changes. These should be directed to the ______________________, so that changes, if appropriate, may be incorporated into future revisions.

ACKNOWLEDGEMENT

This Manual is based on the Contract Administration Manual produced by SMEC International Pty Ltd for the Gazelle Restoration Authority. The Government of Papua New Guinea acknowledge and congratulate the extensive work undertaken by SMEC International and the Gazelle Restoration Authority.
CONTRACT ADMINISTRATION

The Employer for the Contract is the Agency (Department or Public Body) and the name of the authorised representative is the Project Manager, Project Implementation Unit.

The Project Manager will delegate some or all of the duties and responsibilities of the Project Manager to the Project Manager’s Delegate who is nominated by the Agency. Other site staff will be delegated with duties and responsibilities as considered appropriate by the Project Manager. Typical site staffing is listed below for modification to suit particular positions and delegated duties and responsibilities of the staff on the project.

Office and clerical functions will be under the control of an Office Manager.

Delegations are shown in Procedure CA01 - Delegations.

Detailed descriptions of individual responsibilities are provided in Section 0 below.
STAFF RESPONSIBILITIES

GENERAL

Responsibilities of the senior staff involved in the project will vary depending on the project specific staff organisation set-up. Not all the positions detailed below will necessarily be involved or required on a particular project.

Project specific duty statements for staff will be prepared by the Project Manager.

Following preparation of the duty statements, the Project Manager will discuss the requirements with individual staff members.

PROJECT MANAGER

The Project Manager is responsible for the total administration of the project and providing overall management direction.

The Project Manager will maintain close liaison with the Employer under the contract to ensure that the project is proceeding to their satisfaction and the requirements of the loan from the World Bank.

The Project Manager is responsible for the full and timely execution of the project in the field. He will set procedures for job conduct between the contractor and site staff and will ensure that the requirements of the contract are followed.

The Project Manager will carry out frequent reviews of schedule and payment status and will be kept informed through site staff on performance deficiencies.

The Project Manager must ensure a suitable job climate to make the contractor a working team member. Rigid lines of contract barriers must be softened and administered in a way to promote cooperation, teamwork and sharing to gain maximum efficiency and best performance.

CONTRACT ADMINISTRATION ENGINEER

The Contract Administration Engineer is responsible for the day-to-day administration of the contract under the direction of the Project Manager. If there is no requirement for a Contract Administration Engineer, the Project Manager fulfils this role and adopts responsibilities.

The Contract Administration Engineer, as specialist adviser to the site staff on contractual matters, will oversee, by review and interpretation of the documents, the contract administration activities of all field staff.

The Contract Administration Engineer will:

- arrange an initial coordination meeting with the contractor, under the chairmanship of the Project Manager, to review the scope of work and conditions and terms of the contract;
ensure that all submittals required by the contract (Insurances, Securities, program, etc.) are received in the required time;

in conjunction with the Project Manager, establish with the contractor requirements for conduct and standards of performance, methods of invoicing and payment, administration and lines of authority and communication on the site within the limits set by the contract;

ensure that all necessary contract documentation is available on site;

attend periodic meetings with the contractor and other site staff on costs, scheduled progress and contractual and technical problems that may affect the contractor's performance or ability to meet the contract objectives;

review the contractor's initial and updated construction programs for compliance with contract completion dates and ensure that the updated programs properly reflect actual delays and awarded extensions of time;

provide controls for the proper authorisation of variation orders;

keep the Project Manager advised of actual and forecast cost and progress of the contract,

review interim payment applications;

advise the Project Manager with respect to contractual matters;

coordinate final inspection and acceptance of the work and prepare Completion Certificates for issue; and

prior to leaving the Site hand over all completion reports, records, files, details of the release of securities and issue of final certificates to the Employer.

RESIDENT ENGINEERS

The role of the Resident Engineers is to perform technical supervision of the contractor's work within the areas of their responsibility. They will be assisted in this task by site engineers and inspectors.

The Resident Engineers will:

- liaise with the Contract Administration Engineer to ensure that the contractor performs the work in accordance with the requirements of the contract;
- ensure that the Project Manager is kept informed of all issues that may affect the performance of the contract;
- ensure that site engineers and inspectors assigned to them carry out their responsibilities and duties;
- review the contractor's construction programs for their areas of responsibility and assessment of physical progress for monthly reporting; and
- be responsible for arranging measurement of the work in their areas of responsibility for payment purposes.

SURVEYOR

The surveyor is responsible for checking the original control points for the contract and to confirm their reinstatement if they have been dislodged.
In addition, the surveyor will check the contractor's setting out during the progress of the work as and when required and check other work when specifically requested to do so by a Resident Engineer.

The surveyor, at the request of a Resident Engineer, will undertake all surveying work required for measurement for payment purposes and prepare the associated measurement calculations.

**DESIGN ENGINEER**

Responsible to the Project Manager for:

- ensuring that design preparation is in accordance with any approved construction program;
- advising the Project Manager of design changes that may result in variations;
- where necessary, review and approval of the contractor's designs; and
- management of design office staff and the inputs of short term design experts.

**GEOTECHNICAL/MATERIALS ENGINEER**

Responsible to the Project Manager for:

- provision of expert advice in the geotechnical aspects of the contractor's design;
- establishment and management of materials testing laboratories and ensuring that materials and workmanship are in accordance with the specified requirements;
- geological mapping.

**MATERIALS TECHNICIANS**

Responsible to the Geotechnical/Materials Engineer for testing the materials and work in accordance with the specified test methods.

Responsible for the testing carried out by them by ensuring that:

- the proper test methods are followed;
- only calibrated equipment is used;
- work sheets and report forms are correctly completed; and
- all calculations are checked.

**INSPECTORS**

Inspectors are responsible directly to the relevant Resident Engineer.

Inspectors are to observe the contractor's activities and note all relevant details in their daily diary and report forms.

Inspectors must be familiar with those parts of the Specification which affect their area or areas of work.
They are to regularly inspect the areas of work and report upon the quality of workmanship and if it is ready for survey and/or testing or, in the case of structures, whether concrete may be placed.

**OFFICE MANAGER**

Responsible directly to the Project Manager for:

- managing the administrative staff;
- checking on a regular basis that the contract registers are being properly maintained;
- establishing and maintaining the filing system; and
- distributing documents to the relevant staff.

**SECRETARY**

Responsible to the Office Manager for:

- the preparation of all project correspondence in the correct format;
- maintaining the registers for all incoming and outgoing correspondence; and
- ensuring that all documents are correctly and chronologically filed.
CONTRACTUAL OBLIGATIONS

In order to perform their appointed duties, each member of the supervision team must be aware of the duties and responsibilities under the contract and of their own specific authority to direct; approve and vary the scope of work.

BASIC CONTRACTUAL CONCEPTS

The following is based on the World Bank Conditions of Contract.

The expression "Project Manager" is used in this text in its contractual sense as defined in the Conditions of Contract and includes the powers and authorities of the Project Manager.

**Intent of Specifications**

Technical Specifications are generally performance specifications in that they specify the end result of the work and make the contractor fully responsible for the correction of defective work without additional payment.

The Project Manager sometimes has the obligation to approve the contractor's methods but the ultimate choice of method remains with the contractor. The Project Manager may reject all work which fails to meet the standards specified, regardless of any approval of the contractor's methods and procedures.

**Survey and Setting Out**

The Project Manager is responsible for providing the contractor with initial survey reference points. The contractor is then responsible for establishing survey control for its own use and for the day-to-day setting out. Suitable site procedures must be established for checking the contractor's setting out in key areas to ensure that the work meets the lines, levels, dimensions and tolerances required. (Refer to Procedure CA13 - Survey Checks).

**Approval of Materials**

The Project Manager has the right to request test certificates, manufacturer's warranties and other evidence that the materials supplied comply with the Specifications. Substitute materials are permitted where the contract so allows, subject to the Project Manager's approval.

**Acceptance Testing**

Where the Specifications require materials to be supplied, or work to be performed, to specified standards or codes, acceptance must be based on tests prescribed in the codes and on the acceptance criteria stated therein.

Manufactured components or materials supplied by the contractor to be installed in the permanent work, whether inspected off-site or not, are subject to acceptance at the site.

Quality control methods are set out in Procedure CA12 - Quality Control – Field Inspection. Quality control checklists and an Audit Schedule have been prepared and are included in the Quality Control Manual (QCM).
PROJECT MANAGER'S APPROVALS AND DIRECTIONS

All work under the contract is required to be performed in accordance with the Specifications to the satisfaction of the Project Manager. The contract also sets out those matters which require the Project Manager's approval and those which require the Project Manager's directions.

Approvals
The Project Manager is required to give consent or approval to various submissions made by the contractor in accordance with the contract. Verbal consent or approval must be confirmed in writing and written consent or approvals must state:

"Consent or approval does not relieve the Contractor of responsibility for correctness of detail nor does it waive any of the Contractor's obligations under the Contract unless specifically stated in writing by the Project Manager or the Employer."

Directions
In exercising the Project Manager's option to issue directions, field staff must be extremely circumspect. Where work is subject to the Project Manager's directions, responsibility must be accepted for the outcome of those directions and the contract could allow additional payment. All Project Manager's directions must state what work is to be performed and the method of payment, e.g. without additional cost or at a price to be submitted by the contractor and agreed by the Project Manager. (Refer to Procedure CA24 - Variations).

The Project Manager's directions may be issued:

- by letter over the signature of an individual with the proper delegated power to:
  ◆ give notice to commence
  ◆ delay the work
  ◆ approve drawings
  ◆ direct the contractor to comply with the requirements of the contract
  ◆ amend or clarify a detail on the Drawings or Specifications
  ◆ vary the scope of work, etc.

- by Site Instructions (see Procedure CA9 - Site Instructions) issued by various authorised staff to implement day to day construction supervision within the scope of work; to confirm verbal instructions; and to record verbal job agreements. Site memos must not include directions to vary the scope of work or order a variation to the contract

DRAWINGS

The contractor is required to perform all work in accordance with the contract which includes the Specifications and "Approved for Construction" Drawings.

Where the "Approved for Construction" Drawings are revised or changed in any way, the contract has been varied. Such change may attract a change in price. All drawings issued
to the contractor must be reviewed for possible changes or variations to the contract and any such changes brought to the attention of the Project Manager.

**SCHEDULES AND PROGRAMS**

The contractor must submit a construction program for the work included in the contract and there is a requirement for periodic updating and revision.

The contract requires that the contractor submit a detailed program to the Project Manager for approval. This program is to be submitted within a specified time frame (refer to clause 27.1 of the Conditions of Contract).

The “approval” must not be regarded as a casual matter. It is important that the program be in detail, that it be thoroughly checked and that it be revised and resubmitted by the Contractor if it is not in accordance with the Contract requirements.

The construction program must comply with the requirements of the contract for completing the work within the contract completion period.

**MEASUREMENT OF WORK**

The Project Manager, working through site staff, is responsible for measurement and assessment of the work at regular intervals. (Refer to Procedure CA21 - Measurement and Certification of Quantities).

**CONTROL OF CONTRACTOR’S SUB-CONTRACTS**

If the contractor employs sub-contractors to carry out part of the work, all instructions must be directed through the contractor. It must be noted that neither the Project Manager and delegated staff nor the Employer have any direct contractual relationship with the contractor's sub-contractors.

**REPORTS AND RECORDS**

All site staff supervising the contractor's work are required to report regularly on the work inspected.

Apart from keeping a personal daily diary, all conversations, meetings and agreements with the contractor's staff should be recorded.

A system of daily reports will be prepared. (Refer to Procedure CA10 - Daily Reports).

The Quality Control Manual (QCM) includes checklists for each Specification Group, these checklist will form an integral part of the Quality records for the project. (Refer to Procedure CA12 – Quality Control)
CA01. DELEGATIONS

The Employer under the Contract is the Agency on behalf of the Government of Papua New Guinea. The Project Manager, (sometimes referred to as the Engineer) is a representative of the Agency To enable functional administration, Project Manager delegates powers and authorities to act on its behalf to individuals.

PROCEDURES

1. The delegation of the full or part of the Project Manager’s powers will usually be made a representative, depending on the circumstances and location of the project and of the person.

2. Delegations will be notified in accordance with the Contract.

3. Copies of the delegations will be communicated to:
   - the Contractor;
   - the Employer; and
   - the financing agencies, if appropriate.

4. If any delegation is changed or revoked, advice to this effect will be communicated to all the above-mentioned parties.

RESPONSIBILITIES

The Project Manager is responsible for preparing the delegations for signature and for ensuring that they are notified to all concerned parties.

RECORDS

File XXXXX.005.01 - General Administration

ATTACHMENTS

Samples of Delegations
“INSERT PROJECT NAME”

“INSERT CONTRACT NUMBER”

DELEGATION OF POWERS AND AUTHORITIES OF THE PROJECT MANAGER

On and from the _______ day of __________________ 200__, as Project Manager for the above-named Contract revokes the powers and authorities previously delegated to ___________________________1 and until revoked in writing delegates to ____________________________, whose signature appears below, all the powers and authorities of the Project Manager under the provisions of the Contract with the exception of those clauses listed in the Schedule set out below and of the authority to delegate the powers and authorities of the Project Manager.

SCHEDULE OF NON DELEGATED POWERS 2

List of Clauses in which the power is retained by the Project Manager

<table>
<thead>
<tr>
<th>Clause No</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>Employer’s Risks</td>
</tr>
<tr>
<td>28</td>
<td>Extension of the Intended Completion Date</td>
</tr>
<tr>
<td>39</td>
<td>Variations</td>
</tr>
<tr>
<td>44</td>
<td>Compensation Events</td>
</tr>
<tr>
<td>55</td>
<td>Completion</td>
</tr>
<tr>
<td>57</td>
<td>Final Account</td>
</tr>
</tbody>
</table>

(Delegates signature)

Dated this __________ day of __________ 200__.

________________________________________
Project Manager

1 Delete this if no previous delegation.
2 Amend this list as necessary.
CA02. FILE SYSTEM

A properly structured file system is necessary to:

- keep track of site records,
- avoid duplication,
- be able to easily locate records, and
- store records in an orderly manner.

Standardised file numbers will assist in familiarity with the system.

PROCEDURES

1. The Project Manager will establish the file system which will be based on the format of a five digit Project Number followed by a user defined five digit sequence (XXXXX.XXX.XX). Where a project involves multiple contracts, an additional digit will be necessary to distinguish between contracts, e.g. XXXXX/A.XXX.XX.

2. The Project Manager in conjunction with the Office Manager will establish and maintain the files.

3. All project correspondence will be filed on a regular basis, on the correct file and in proper sequence.

4. All sheets in each individual file will be given a progressive Folio Number.

5. Once filed, no correspondence will be removed from a file unless for transfer to another file. In this event the removed correspondence will be replaced by a sheet denoting "Folio Number(s) Transferred to File No. XXXXX.XXX.XX folio Number(s)".

6. Files will be sited in a central location and a record of removal maintained.

7. A set of backup files will be stored in a separate location.

RESPONSIBILITIES

The Project Manager is responsible for the establishment of the file system and for the periodic review of its operation.

Clerical staff are responsible for filing and maintenance of the file location register.

ATTACHMENTS

Sample of File Index
“INSERT PROJECT NAME”

“INSERT CONTRACT NUMBER”

FILE INDEX

DESIGN MATTERS
XXXXX.003.01 General design matters
XXXXX.003.02 Design and issue of drawings etc - Civil Works
XXXXX.003.03 Design and issue of drawings etc - E&M Works
XXXXX.003.04 Receipt and approval of contractor's drawings/designs

SITE ADMINISTRATION
XXXXX.004.01 Site accommodation and housing
XXXXX.004.02 Site office facilities
XXXXX.004.03 Medical and health facilities
XXXXX.004.04 Communications and other facilities
XXXXX.004.05 Project vehicles
XXXXX.004.06 Assets - household, survey and office equipment

FORMATION, ADMINISTRATION AND FINALISATION OF CONTRACT
XXXXX.005.01 General Administration
Notice to commence; possession of site; submission of securities, insurance etc; authorised signatories; completion documents.
XXXXX.005.02 Staff and Labour
Contractor's staff organisation, labour returns, hours of work, holiday and close down arrangements, expatriate work-force, local work-force, (including training)
XXXXX.005.03 Subcontractors
Approval of proposed subcontractors.

VARIATION ORDERS, EXTENSIONS OF TIME, DISPUTES AND ARBITRATION
XXXXX.006.01 Issues
XXXXX.006.02 Contractual Claims
All matters relating to receipt, investigation and replies to claims
XXXXX.006.03 Variation Orders
Approvals from Employer, issue of VOs
XXXXX.006.04 Extensions of Time
XXXXX.006.05 Disputes

REPORTS AND MEETINGS
XXXXX.007.01 Reports to Employer
XXXXX.007.02 Record of Meetings with Contractor
XXXXX.007.03 Record of Meetings with Employer
XXXXX.007.04 Co-ordination Meetings
XXXXX.007.05 Daily Reports
**PROGRAM, FINANCIAL CONTROL AND CONTRACT PAYMENTS**

- **XXXXX.008.01** Contractor's Construction Program
  - Submission, analysis and reply
- **XXXXX.008.02** Financial Control
  - Contractor's cashflow estimates, contract value
- **XXXXX.008.03** Interim Payments
  - Contractor's Statements and Project Manager's Certificates
- **XXXXX.008.04** Escalation
- **XXXXX.008.05** Advances
  - Mobilisation, materials
- **XXXXX.008.06** Day Works
  - Requests, records, claims
- **XXXXX.008.07** Provisional Sums
  - All matters relating to obtaining quotations, approvals, etc
- **XXXXX.008.08** Measurement of Work (subdivided into each section of BoQ)

**TEMPORARY WORKS**

- **XXXXX.009.01** Contractor's Construction Facilities
  - Works areas, workshops, stores, temporary access roads

**PLANT AND EQUIPMENT**

- **XXXXX.010.01** Contractor's Construction Plant and Equipment
  - Contractor's proposals regarding the purchase, manufacture, shipping and use of construction plant and equipment
- **XXXXX.010.02** Employer Furnished Plant and Equipment

**CONSTRUCTION MATERIALS**

- **XXXXX.011.01** Concrete Manufacture
  - Concrete batching and mixing. Design of mixes, inspection and testing, test results
- **XXXXX.011.02** Steel
  - Supply, testing and approval of structural steel, reinforcing steel, steel plate
- **XXXXX.011.03** Protective Coatings
  - All classes of paint, bitumen compounds, curing compounds. Proposals, examination and approval of materials and system. Methods of application
- **XXXXX.011.04** Explosives
  - Sources of supply, approval for use, control of storage and use
- **XXXXX.011.05** Grout
  - Sources of supply, approval for use, acceptance and routine testing, usage
- **XXXXX.011.06** Embankment Materials - Soils
- **XXXXX.011.07** Embankment Materials - Rock
- **XXXXX.011.08** Other Construction Materials
  - Includes waterstops, metal seals, neoprene pads, polythene vapour barriers, joint fillers, special formwork, etc
- **XXXXX.011.09** Miscellaneous Metalwork
Supply, fabrication, approvals etc of items such as handrails, ladders, grating, hatch covers and frames

SAFETY, INDUSTRIAL, PUBLIC RELATIONS ETC

SAFETY, INDUSTRIAL, PUBLIC RELATIONS ETC

SUPPLY AND INSTALLATION OF MECHANICAL AND ELECTRICAL EQUIPMENT

GENERAL CONSTRUCTION MATTERS

QUALITY CONTROL

ROAD WORKS

BRIDGE WORKS

DAM CONSTRUCTION

NOTE: Technical construction matters should be subdivided into as many groupings as necessary for the size and scope of the project.
CA03. FEEDBACK FROM PROJECT

It is important for progressive elimination of problems that all personnel associated with the administration and inspection of construction contract work are given the opportunity and are encouraged to register their comments and suggestions in relation to design details and contract documents.

PROCEDURES

Any comments or suggestions should be communicated directly by individuals to the Project Manager (name)

The feedback must take place as soon as problems are encountered so that significant suggestions can be incorporated in relevant contract documents and/or drawings currently being prepared for other projects.

RESPONSIBILITIES

The Project Manager to encourage staff to register comments and suggestions.

All staff to provide comments and suggestions as and when problems occur.

RECORDS

Branch Files.

ATTACHMENTS

Nil.
CA04. CONTRACT REGISTERS

Registers are a tool to manually record correspondence details and contractual matters.

PROCEDURES

1. The Project Manager will maintain the following registers:

<table>
<thead>
<tr>
<th>Register</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>R1</td>
<td>Correspondence from Contractor</td>
</tr>
<tr>
<td>R2</td>
<td>Correspondence to Contractor</td>
</tr>
<tr>
<td>R3</td>
<td>Correspondence from Employer</td>
</tr>
<tr>
<td>R4</td>
<td>Correspondence to Employer</td>
</tr>
<tr>
<td>R5</td>
<td>Internal Correspondence</td>
</tr>
<tr>
<td>R6</td>
<td>Not Used</td>
</tr>
<tr>
<td>R7</td>
<td>Not Used</td>
</tr>
<tr>
<td>R8</td>
<td>Issues</td>
</tr>
<tr>
<td>R9</td>
<td>Extension of Time Claims</td>
</tr>
<tr>
<td>R10</td>
<td>Variations</td>
</tr>
<tr>
<td>R11</td>
<td>Claims</td>
</tr>
<tr>
<td>R12</td>
<td>Dayworks</td>
</tr>
<tr>
<td>R13</td>
<td>Drawing Issue</td>
</tr>
<tr>
<td>R14</td>
<td>Site Instructions</td>
</tr>
<tr>
<td>R15</td>
<td>Non-conformances</td>
</tr>
</tbody>
</table>

2. For inwards correspondence:

   The Project Manager will fill in the sender's letter reference, date received, subject and file number columns immediately upon receipt.

   Upon a reply being signed by Project Manager, he will fill in the reply reference and date columns.

3. For outwards correspondence:

   On request from an author, the Project Manager will allocate a letter reference number and fill in the file number and subject columns.

   After signature of the letter by the Project Manager, he will complete the remaining columns.

RECORDS

Contract Files
Registers

ATTACHMENTS

Sample Registers
### REGISTER R1 - CORRESPONDENCE FROM CONTRACTOR

<table>
<thead>
<tr>
<th>Date Received</th>
<th>Sequence No.</th>
<th>Contractor Ref No.</th>
<th>Document Date</th>
<th>Subject</th>
<th>File No.</th>
<th>Folio No.</th>
<th>Reply req'd (Y/N)</th>
<th>Reply Date</th>
<th>Reply Ref No.</th>
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**REGISTER R2 - CORRESPONDENCE TO CONTRACTOR**

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REGISTER R4 - CORRESPONDENCE TO EMPLOYER

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REGISTER R5 - INTERNAL CORRESPONDENCE

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REGISTER R7 - CORRESPONDENCE TO CLIENT

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REGISTER R9 - EXTENSION OF TIME CLAIMS

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REGISTER R10 – VARIATIONS

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REGISTER R14 – SITE INSTRUCTIONS

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CA05. CONTRACTUAL CORRESPONDENCE

It is essential that all project staff be aware of their limits of authority in communicating with the parties to the contract, of the significance of their written communication and of the formal or contractual communication required.

Contractual correspondence within the authorities of the Project Manager will be issued under signature of "Project Manager" whilst all contractual correspondence issued within delegated powers to sign for the Project Manager will be issued under the signature "for (Agency)".

There can only be one Project Manager. Correspondence must be signed by the appointed individual and not by anyone else. If the Project Manager is to be absent from site for a lengthy period, it may be necessary to revoke his authority and appoint an alternate during that period.

All correspondence will have 2 associated identifying numbers – a Sequence Number and a Folio Number. Inwards and outwards correspondence will have an independent Sequence Number system. The Folio Number will be a consecutive numbering system to identify each separate sheet in a particular file. Each separate item of correspondence will have only one Sequence Number but may have a series of Folio Numbers.

PROCEDURES

1. At the initial site meeting the distinction between authorities held by the Project Manager and those persons delegated with the duties and responsibilities of the Project Manager will be clarified.

2. All correspondence will be received at the Project Manager’s office. For contractual matters within the delegated authority of the Project Manager, all correspondence will be responded to from the site. The Project Manager will forward all correspondence on matters not within his authority to the appropriate person.

3. All inwards correspondence will be received by the Office Manager and will be stamped with the date received and the Inwards Sequence No. A copy will be made and stamped with the distribution list.

4. The original, together with all attachments, will be filed in the appropriate Box File. Separate Box files will be established for:
   - Correspondence from Contractor
   - Correspondence to Contractor
   - Correspondence from Employer
   - Correspondence to Employer
   - Internal Correspondence

---

3 These procedures are prepared for World Bank Conditions of Contract
5. The copy will be passed to the Project Manager who will allocate a file number and fill in the distribution list.

6. The Office Manager will then make an additional copy, place it on the appropriate file, give each sheet its Folio Number and complete the relevant details in the appropriate Register. The copy will be circulated to all personnel marked on the distribution list and, at the completion of circulation, will pass back to the Office Manager for placing on the appropriate backup file.

7. It is important that correspondence is not marked with anything other than the initials of staff on the distribution list. Comments on the contents of the correspondence is not to be made on the correspondence itself.

8. For all outwards correspondence, the originator will first obtain a file and Outwards Sequence Number from the Office Manager.

9. After typing and proofreading, the originator will initial the site file copy and obtain the Project Manager’s signature.

10. The copies will be passed to the Office Manager who will place a copy on the relevant Box File and backup file, place a copy on the correct site file after giving each sheet its Folio Number and then complete the appropriate Register.

11. The Office Manager will circulate copies of the outward correspondence to other site staff as required for information purposes.

12. Terminology and other requirements will be in accordance with the set of draft notices attached to this Procedure.

RESPONSIBILITIES

The Project Manager will:

- allocate file numbers and complete the distribution list for all inwards correspondence;
- sign all outwards correspondence within his delegated powers;
- arrange for action by such other person with the appropriate delegation when the subject of the correspondence is outside the limits of his delegation.

The Office Manager will:

- receive all inwards correspondence and stamp correspondence with the Inwards Sequence Number;
- complete and maintain the Registers;
- allocate file and Outwards Sequence Numbers for outwards correspondence.
- copy and circulate correspondence;
- maintain the files.
RECORDS

Box Files
Site files
Backup files
Registers
Contract Management System database

ATTACHMENTS

Draft notices
DRAFT NOTICES

The following are suggestions for the wording that could be used when a written notice is required or would be advisable. They provide a means of checking that the form is addressed and copied to the right parties. The giving of notices at the correct time, addressed and copied correctly and in an acceptable form is important in any contract. This is because a correct form removes from the other parties an excuse for argument or non-performance. Contract documentation important to the form of notices include:

- CC sub-clause 6.1 (Communications) which requires communications to be in writing and delivered.
- Contract Data which defines the correct addresses for the Contractor, Employer and Project Manager.

All notices and other communications must be dated.

The following draft notices are based on the World Bank Conditions of Contract and may need to be amended to provide for the Special Conditions of Contract.

Where reference is made to the Project Manager, this may include those delegated with the duties and responsibilities of the Project Manager, depending the applicable delegation in effect.

Sub-Clause 5
To: Contractor from Project Manager

I have delegated pursuant to Sub-Clause 5 of the contract, [name of person] to undertake the duties and responsibilities of the Project Manager. His duties and responsibilities are as follows: ... [specify] ...

Sub-Clause 7.1
To: Contractor from Project Manager

I hereby consent to the sub-contracting by you to [name of sub-contractor] of the following part of the works: ... [specify] ...

Sub-Clause 28.1
To: Contractor from Project Manager
Copy: Employer

I have determined pursuant to Sub-Clauses 28.1, 28.2 and 40 (or 44 as applicable) that the Intended Completion Date shall be extended by ... [specify] days and the amount of the costs to be added to the Contract Price is [amount].

Sub-Clause 9.2
To: Contractor from Project Manager
I give you notice under Sub-Clause 9.2 that [name] is to be removed for the following reasons: [state reasons]. You are obliged to remove the representative from the works and you may not employ him on the works again in any capacity. Kindly submit the name and details of an alternative representative for my approval.

**Sub-Clause 34.1**
To: Contractor from Project Manager
Copy: Employer

I have determined pursuant to Sub-Clause 34.1 that the extension of time to which you are entitled under Clause 44 and 28.1 is ... [specify] days and the amount of the costs to be added to the Contract Price is [amount].

**Sub-Clause 35.2**
To: Contractor from Project Manager

I write to give you notice pursuant to Sub-Clause 35.2 that [specify materials or plant] are defective or otherwise not in accordance with the contract and they are therefore rejected for the following reasons: ... [specify]. Correction of the defect will be completed within: ..[specify time]
CA06. PROJECT COMMENCEMENT

Proper administration requires that certain matters be attended to at an early stage in the project.

PROCEDURES

1. FAMILIARISATION

One of the first tasks for site staff when they arrive at the project is to become familiar with the site, drawings, specifications and the administration and inspection procedures to be adopted.

The Project Manager will personally brief each member of the site staff, covering such matters as:

- line of authority
- duties and responsibilities of each team member
- outline of Contractor's organisation and appropriate levels of contact
- requirements with respect to correspondence, reports and records.

The Project Manager will further elaborate the responsibilities and duties of site staff on their arrival at site.

2. CONTRACT DOCUMENTS

The formal contract documents are the basis for the administration of a contract and only the specific requirements of those documents can be used in establishing the rights and obligations of both parties to the Contract. All personnel involved in administration of the Contract must ensure that both the Employer and the Contractor receive fair and equitable treatment.

All other documents issued for the purposes of tendering, all interviews, negotiations and correspondence exchanged by the parties prior to the execution of the Agreement and not included in the contract documents have no contractual significance and are not to be used or quoted when interpreting the Contract.

At least one complete set of the contract documents and all completed “Approved for Construction” drawings are to be available on site at the start of the Contract. This set of documents and drawings will be kept intact and updated with all issues of variation orders and drawing revisions so that a complete and up-to-date set of documents is available during the contract period (see Procedure CA28 - Work-as-Executed Drawings).

Copies of relevant parts of the contract documents and drawings will be issued to site staff as necessary to perform their duties.
3. STANDARDS AND CODES

At least one copy of each Standard Specification or Code mentioned in the Specifications must be available at the Site. Generally, it is the Contractor's responsibility to provide these.

4. SURETIES

Under the Conditions of Contract, the Contractor is required to lodge various sureties to provide for recompense to the Employer in the event that the Contractor defaults.

Note: Liquidated Damages and debts for services rendered to the Contractor by the Employer cannot be deducted from the sureties unless the Contract provides for this.

The Project Manager will check that the sureties have been lodged and that they are acceptable to the Employer.

5. INSURANCE

The Conditions of Contract set out the Contractor's obligation for insurance. The Project Manager will ensure that all insurance policies submitted by the Contractor are acceptable to the Employer. Specialist advice, if needed, will be sought to review the proposed insurance policies to ensure that they meet the requirements of the Contract. During the period of the Contract, the Project Manager will ensure that all required policies are kept current by requesting the Contractor to produce adequate evidence of this when renewal of insurances are due.

6. INITIAL SITE MEETING

A meeting with the Contractor will be held in the early stages of the Contract. This meeting will be chaired by the Project Manager and the persons delegated with Project Manager's duties and other staff to be engaged in site supervision duties will attend.

The Project Manager will prepare and distribute an agenda for the meeting.

Apart from an exchange of organisation charts and an explanation of the responsibilities of project staff, the agenda for the meeting will include the following:

- contractual obligations of both parties - these include the submission of proposals, schedules, labour and accommodation returns and other information by the Contractor; the handling of correspondence and the issue of drawings
- procedures to be adopted for processing interim payment claims, measurement of quantities, escalation claims, issue of variation orders, submission of claims by the Contractor and issues of certificates by the Project Manager
• technical details and procedures for examination, inspection and testing of work in accordance with the Contract, construction procedures, Contractor's proposals, approvals and directions by the Project Manager, submission of construction programs, and progress reports.

The Project Manager will ensure that the procedures and agreements reached are within the terms and conditions of the Contract.

Minutes of this meeting setting out basic agreements and procedures will be recorded by the Project Manager and distributed to all persons attending.

The Project Manager will prepare a letter to the Contractor confirming all agreements made with the Contractor at this meeting.

7. EMERGENCY TELEPHONE NUMBERS

The Project Manager will prepare a list of emergency contact numbers. A copy of this will be given to the Employer, the Contractor and all site personnel and a copy will be posted in the site office in a prominent location.

8. HAND OVER OF FACILITIES TO THE CONTRACTOR

The Conditions of Contract and the Specification detail the facilities that the Employer will make available to the Contractor.

Written and/or photographic records are essential to avoid conflict at the end of a contract in determining responsibility for clean up and restoration of quarry areas, borrow pits, roads and on-site areas. These records will be prepared by the Project Manager prior to any site disturbance. Copies of records will be retained by the Project Manager for ensuring that the Contractor meets its obligation on completion of the work.

9. CORRESPONDENCE

At the initial site meeting the Project Manager will establish the number of copies of each letter, proposal or other submission required from the Contractor. The number of shop drawings, manuals, spare-parts lists and other data to be submitted by the Contractor is set out in the Contract. The Contractor will also nominate the number of copies of correspondence required.

10. CLIMATIC CONDITIONS

Exceptionally adverse climatic conditions can generate claims for extensions of time and, in cases of heavy precipitation, flood damage which affects insurance claims may occur.

Consequently it is important for the Project Manager to be aware of the effects of weather on a contractor's progress in such activities as earthworks, concreting and painting; its effect on labour attendance and stand downs, and damage to the works, the plant and equipment and temporary works.
Personal recollections of weather patterns are of no use for reporting or in assessing claims for extensions of time and only formally measured and recorded weather data are to be used.

The Project Manager will arrange for the installation of recording equipment and collection and maintenance of daily weather reports.

**RECORDS**

Copies of sureties and insurance policies  
File XXXXX.007.02 - Record of Meetings with Contractor  
Site records at handover  
Emergency telephone numbers  
Weather records.

**ATTACHMENTS**

Sample Agenda for Initial Site Meeting  
Emergency Telephone Numbers form
TYPICAL AGENDA FOR INITIAL SITE MEETING

Contractor: _______________________________

Meeting to be held at _____________ on _____________________ 200__.

1. Opening
   Introduction
   General description of Contract scope
   Project philosophy

2. Organisation
   Project Manager's organisation and personnel for the Contract
   Contractor's organisation and personnel for the Contract

3. Communication
   Verbal
   Site Memos/Instructions
   Correspondence and drawing transmittals
   Schedule for meetings

4. Program
   Overall work plan and program
   Manpower
   Co-ordination with other contractors and their work programs

5. Construction Materials
   Planning for material supplies
   Transport and offloading procedures
   Storage and stockpiling procedures

6. Employer furnished facilities
   Survey marks
   Construction power (if applicable) and contractor's extensions
   Water and sewerage (if applicable)
   Telecommunications (if applicable)
   Other services - borrow areas, quarries, disposal and stockpile areas

7. Contractor's facilities
   Accommodation or camp facilities
   Construction power (if applicable)
   Water and sewerage (if applicable)
   Sewage and waste disposal
   Telecommunications (if applicable)
   Operation in borrow areas, quarries, disposal and stockpile areas

8. Contractor's plant and equipment planning
9. Contractor's storage areas
   Location and layout
   Buildings
   Conditions or restrictions on use
   Requirements of other contractors (if applicable)

10. Work rules
    Work hours
    Work outside agreed hours
    Security
    Camp regulations

11. Safety
    Safety provisions and procedures
    First-aid and medical provisions
    Accident reporting

12. Quality control program
    Inspection of the work
    Testing

13. Measurement of the work

14. Monthly progress statement procedure
    Agreement of monthly progress measurements
    Form of submittal
    Payment for variations
    Deductions for retention, etc

15. Issue of variation orders

16. Claims or other dispute handling

17. Reporting requirements (as applicable)

18. Drawing and data submittal and review procedure

19. Contractor's appointment of subcontractors

20. Insurance

21. Other matters
**EMERGENCY TELEPHONE NUMBERS**

<table>
<thead>
<tr>
<th>SENIOR PROJECT PERSONNEL</th>
<th>Work</th>
<th>Home</th>
<th>Mobile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Manager</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project Manager’s</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delegate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contractor’s Project</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manager</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employer’s Representative</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**OTHERS**

- Fire: __________
- Ambulance: __________
- Doctor: __________
- Hospital: __________
- Police: __________
- Electricity Company: __________
- Water Company: __________
- Telephone Company: __________
- Insurance Company: __________
CA07. ISSUE OF DRAWINGS AND OTHER DOCUMENTS

The drawings depicting the scope of work are legal documents which form an integral part of the contract and the contractor is required to perform the work in accordance with them.

Consequently, to achieve proper administration of the contract, the transmittal of drawings must be handled with circumspection and properly recorded at all stages to avoid unnecessary disputes and claims.

The issue of other documents to the Contractor must also be properly recorded.

PROCEDURES

1. As part of the contract documents, the contractor will be issued drawings which accurately reflect the work upon which the tender was based and accepted. This will avoid any claim or dispute that the drawings have been changed, revised or unseen by the contractor before the contract was signed.

2. The Contractor will be issued with the number of sets of construction drawings as required by the Conditions of Contract.

   These drawings will be the tender drawings incorporating any necessary revisions together with any further required drawings and will be marked "Approved for Construction".

3. All drawings will be accompanied by a Drawing Transmittal form which is to be signed by the contractor acknowledging receipt of the drawings.

4. In allocating priorities for drawing preparation, the following aspects will be taken into account:

   • contractor’s construction program and construction sequence
   • delivery time for construction materials
   • fabrication time for manufactured items
   • any design work or shop drawings required from the contractor.

5. When any drawing is revised, copies of the revised drawings must be issued to the contractor with the revisions clearly marked.

6. Prior to issue, all revised or new drawings will be checked for variations from the scope of work or departures from the Specifications. The results of this check will initiate, if necessary, the appropriate procedure for issue of a Variation Order (Refer to Procedure CA24 – Variations).

7. If necessary, the Project Manager will liaise with the designer to ensure the designer is aware of any drawing that is inconsistent with contractual obligations or that may give rise to a variation. This will give the designer the opportunity to reconsider or confirm the revised drawing prior to issue to the contractor.
8. After issue of drawings to the contractor, the Project Manager will update the master set of drawings and Drawings Issued Register (Refer to Procedure CA04 – Contract Registers).

RECORDS

File XXXXX.003.02 - Issue of Drawings
Drawing Issue form
Drawings Issued Register (module in Contract Management System database)
Document Transmittal form

ATTACHMENTS

Sample Drawing Issue form
Sample Document Transmittal form.
# DRAWING ISSUE FORM

<table>
<thead>
<tr>
<th>PROJECT NAME</th>
<th>DATE OF ISSUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROJECT NUMBER</td>
<td>Day</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DRAWING TITLE</th>
<th>DRAWING No.</th>
<th>REVISION No.</th>
</tr>
</thead>
<tbody>
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</tr>
</tbody>
</table>

No. OF DRAWINGS ISSUED TO:

<table>
<thead>
<tr>
<th>Legend</th>
<th>Client</th>
</tr>
</thead>
<tbody>
<tr>
<td>T</td>
<td>Contractor</td>
</tr>
<tr>
<td>P</td>
<td>Site Office</td>
</tr>
<tr>
<td>R</td>
<td>Other</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PURPOSE OF ISSUE:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information</td>
</tr>
<tr>
<td>Approval</td>
</tr>
<tr>
<td>Comment</td>
</tr>
<tr>
<td>Construction</td>
</tr>
<tr>
<td>Quotation</td>
</tr>
<tr>
<td>Other</td>
</tr>
</tbody>
</table>

Attached drawings have been checked and agree with above list:

Issued by: _____________________________ Receipt Acknowledged: _____________________________

Date: ___________ Date: ___________

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The accuracy and completeness of information transmitted by electronic means cannot be assured and only hard copy documents supplied by the issuing Agency are authoritative. The issuing Agency will not be liable for loss or damage that results from the inaccuracy or incompleteness of electronically transmitted information, or from any corruption or distortion of that information when printed as hard copy. In the event that the electronically transmitted information supplied by issuing Agency is used in any manner other than under its sole control and for the specific purpose for which it was prepared, issuing Agency will not be liable for such use or for any loss or damage which may result.

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DOCUMENT TRANSMITTAL

To: ___________________________ Date: ________________

Your Ref: ____________________
Our Ref: _____________________

Attention: Project Manager Contact: ______________________
Project: ______________________ Phone: _________________

Herewith:

____________________________

For:  ❑ Information  ❑ Resubmit  ❑ Return to you  ❑ Approval
       ❑ Construction  ❑ Other
       ❑ Comment  ❑ Quotation

Attachments documents have been checked and agree with above list:

Issued by: ___________________________ Date: ________________

Receipt Acknowledged: ___________________________ Date: ________________

CONDITIONS

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Government of Papua New Guinea
See Procedure CA05 - Contractual CorrespondencePage CA07 - 4
Edition 1, Revision 1  Issue date: August 2004
CA08. APPROVAL OF SUBCONTRACTORS

The Conditions of Contract preclude subcontracting without the consent of the Project Manager.

PROCEDURES

1. On becoming aware of a subcontractor moving on to the site, the Project Manager will verify that the subcontractor has been approved.

2. In the event of the subcontractor not being approved, the Project Manager will notify the Contractor of the breach of contract.

RESPONSIBILITIES

The Project Manager and his delegates are responsible for monitoring site operations and so becoming aware of subcontractors.

These staff are responsible for checking whether subcontractors have been approved and advising the Project Manager of non-approved subcontractors working on the site.

The Project Manager is responsible for following up with the Contractor to ensure that the provisions of the Contract are followed.

RECORDS

File XXXXX.005.03 - Approval of Proposed Subcontractors

ATTACHMENTS

Nil.
CA09. SITE INSTRUCTIONS

For minor matters, or when insufficient time is available to issue a formal letter, authorised staff may issue a Site Instruction to the Contractor.

PROCEDURES

1. Staff who have the necessary authority will issue instructions to the Contractor as required.

2. Instructions may only be issued for work that is specified in the Contract and not for any new work or any activity that could be construed as a variation or result in an extension of time claim.

3. Instructions must refer to the relevant Specification clause or drawing.

4. A copy is to be filed in a dedicated site file and the Site Instructions Register completed.

5. A copy is to be forwarded to the Project Manager on the day that it is issued.

RESPONSIBILITIES

Authorised staff are responsible for completing the Instructions, maintaining registers and ensuring correct distribution of copies.

RECORDS

File XXXXX/XXX/XX – as appropriate
Correspondence to the Contractor

ATTACHMENTS

Site Instruction form.
“INSERT PROJECT NAME”
“INSERT CONTRACT NAME”

SITE INSTRUCTION

No.: _____

Subject: ________________________________________________
Reference: _____________________________________________

In accordance with Clause ______________ of the Conditions of Contract and/or ______________ of the Technical Specifications, you are hereby instructed as follows.

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Reason for instruction:
________________________________________________________________________
________________________________________________________________________

This instruction does/does not constitute a variation nor does it give reason for an extension of time.

Project Manager [or delegate] _______________________________ Date

Received by: _____________________________________________ ___________________
(Contractor’s Representative) __________________________ Date

Original: Contractor
Copy: Site Office
Copy: Project Manager (and then file)
File No.: ________________
CA10. DAILY DIARIES AND REPORTS

Daily reports are used to maintain a record of significant events and activities for later use in preparing reports or addressing contractual claims.

All staff must maintain a daily diary in which notes and records of daily activities and conversations are kept. The diary is not a substitute for the daily report and needs to record:

- general daily activities. Every day must be recorded. If there is no work carried out on a given day, or the recorder is absent for any reason, these details need to be recorded;
- telephone calls made or received with details of the conversation;
- details of all substantial conversations held with the Contractor, as well as any instructions issued and commitments made by either party;
- any work or material not conforming to the specified requirements, as well as the action taken;
- unforeseen conditions or other problems that may effect the Contractor

PROCEDURES

1. As well as maintaining a comprehensive diary, Inspectors will compile a Daily Report and a General Report recording daily events on the aspects of the work for which they are responsible. The report will be prepared for each main feature of the work and be completed for all normal working days irrespective of whether or not any progress was accomplished.

2. The following information will be recorded:

- areas/structures where work is in progress, with details of work being performed and the major plant and approximate number and classification of men involved;
- when work commences in a new area or on a new structure;
- when work has stopped for a period;
- concrete placements achieved, including start and finish times;
- subcontractors on site and location of areas where working;
- details of any lost time due to industrial disputes, weather etc;
- arrival/departure of major items of plant;
- significant non-availability of major/critical items of plant;
- arrival of major items of material;
- directions/instructions given to the Contractor, other than those of a routine nature; and
- significant changes to the Contractor's supervisory staff;
3. Inspectors will forward their reports to the Project Manager on a daily basis. The Project Manager will note any matter requiring his action and initial the reports as having been received and reviewed. Any follow-up action required and carried out will be documented in the reports.

4. Project Manager will maintain files of the Inspector's reports and ensure that the reports are submitted daily.

5. Daily information such as rainfall, site delays and visitors will be recorded by the Project Manager on a Miscellaneous Information form. These forms will be retained in a working file by the Project Manager.

RESPONSIBILITIES

Inspectors are responsible for preparing fully detailed reports on all areas of the work for which they are responsible.

Project Manager is responsible for reviewing the reports on a daily basis and taking action where necessary and for completing a Miscellaneous Information form.

RECORDS

General Report form
Miscellaneous Information form
Daily Report form
Inspection Checklists (Refer Quality Control Manual)
XXXXX.007.05 - Daily Reports.

ATTACHMENTS

General Report Form
Miscellaneous Information Form
Daily Dairy
### GENERAL REPORT

<table>
<thead>
<tr>
<th>Shift:</th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feature:</td>
<td>Contractor's Supervisor:</td>
</tr>
<tr>
<td>River Level:</td>
<td>Weather:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Activity</th>
<th>Location Chainage/Elevation</th>
<th>Equipment</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>

Inspector: __________________________ Date: __________

Project Manager: ______________________ Date: __________
MISCELLANEOUS INFORMATION  Week Ending ________

WEATHER OBSERVATIONS:

<table>
<thead>
<tr>
<th>Day</th>
<th>mm Rain</th>
<th>Weather Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sun</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mon</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tue</td>
<td></td>
<td></td>
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<tr>
<td>Wed</td>
<td></td>
<td></td>
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<tr>
<td>Thu</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fri</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sat</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SITE DELAYS:

<table>
<thead>
<tr>
<th>Date</th>
<th>Feature</th>
<th>Duration</th>
<th>Cause/Remarks (eg weather, power outage, industrial, access out, equipment failure, etc)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

VISITORS:

<table>
<thead>
<tr>
<th>Date</th>
<th>Who &amp; How Many/Auth/Dur/Purpose</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>
DAILY REPORT

<table>
<thead>
<tr>
<th>Inspector:</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weather:</td>
<td>Time worked from __________ to __________</td>
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</tbody>
</table>

**WORK IN PROGRESS**

<table>
<thead>
<tr>
<th>Personnel on Site</th>
<th>Description</th>
<th>Location</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foreman</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Plant Operators</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drivers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skilled Labour</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Common Labour</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sub Contractors</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total: Test</td>
<td>Test</td>
<td>Location</td>
<td>Results</td>
</tr>
<tr>
<td>Important matters discussed:</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**FIELD TESTS**

<table>
<thead>
<tr>
<th>Major Plant on Site</th>
<th>Test</th>
<th>Location</th>
<th>Results</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major Plant on Site</td>
<td>Dozers</td>
<td>Loaders</td>
<td>Excavators</td>
<td>Graders</td>
</tr>
<tr>
<td>Important matters discussed:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TEST SAMPLES**

<table>
<thead>
<tr>
<th>Material</th>
<th>Location</th>
<th>Test</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
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</tr>
</tbody>
</table>

Materials received on site:

**Visitors:**

---

Government of Papua New Guinea  
Procedure CA10 Daily Diaries and Reports  
Edition 1, Revision 1  
Page CA10 - 5  
Issue date: August 2004
CA11. HANDOVER BOOK

Where shift work is required or work is spread over a relatively large site, a “Handover Book” is a convenient means of passing on information to other site staff without having to actually locate and speak to each individual. Also, the information is readily available for future reference by all concerned.

Properly used, the Handover Book will be an extremely useful record of contractual information.

PROCEDURES

1. A Handover Book will be prepared for each section of the work under the control of the delegated site staff.

2. Each Handover Book will be held at a central point and perused by relevant staff at regular intervals. New entries will be initialled to indicate that they have been seen and the information noted.

3. The Handover Book will be used for recording and advising the following:
   - work in progress at shift change and other information for the oncoming inspector;
   - messages, directions and/or instructions from (and to) site staff;
   - field copies of Site Instructions; and
   - tests, measurements, etc done or taken during the shift.

RESPONSIBILITIES

The Project Manager is responsible for setting up the Handover Books for the project. The persons delegated by the Project Manager will be responsible for the administration of the Handover book.

Inspectors and site engineers are responsible for utilising the Handover Book in accordance with the specified procedures.

RECORDS

Handover Books retained by the Project Manager as each book is filled.

ATTACHMENTS

Nil.
CA12. QUALITY CONTROL - FIELD INSPECTION

Part of the supervision role is to ensure that construction is carried out in accordance with the specified standards.

PROCEDURES

1. Procedures for field inspection will be developed by the Project Manager after review of the Contractor's Quality Assurance system (if required by the Contract) and the requirements of the Specifications. These procedures will form a separate manual to this Contract Administration Manual and will be the Construction Quality Control Manual.

2. Procedures will include check lists to permit the systematic checking, inspection and acceptance of works, record sheets to record the details of an activity as it is happening and report sheets to summarise the results of an activity after its completion.

3. The date and findings of all inspections will be recorded, together with pertinent details of remedial work or corrective work directed. Follow-up inspections will be carried out to verify that the remedial work has been carried out, and findings again recorded.

   The check lists and record sheets are to be completed as the work is in progress. Inspection staff must not write information on other pieces of paper or notebooks and later transfer them to these sheets, rather they must be completed at the time the event is occurring and, whilst care must be taken to keep the sheets neat and legible, it is understood that in the course of the work they may become soiled or creased.

4. The Contractor will be advised immediately, by the issue of a Non-conformance Notice, if any inspection reveals that work does not conform to the requirements of the Specification.

5. Project Manager will ensure that the Contractor corrects all non-conformances.

6. After the concurred rectification works is completed, the Non-conformance Notice is closed out by completing the form and the register.

RESPONSIBILITIES

The Project Manager is responsible for:

- in conjunction with other designated staff, preparing the Construction Quality Control Procedures;
- ensuring that site staff are inspecting the works to the appropriate standard; and
- signing non-conformance notices.

The Project Manager’s delegates are responsible for:
ensuring all work is inspected as and when necessary and that all work conforms with the requirements of the Specification;
ensuring all inspections are recorded on suitable forms;
if authorised, signing non-conformance notices; and
ensuring the Contractor is issued with the appropriate non-conformance notice.

All field staff are responsible for quality control checking and identifying non-conformances.

RECORDS

Non-conformance Notices
XXXX.015.01 Non-conformances and Corrective Action
Inspection forms, as applicable

ATTACHMENTS

Non-conformance Notice
“INSERT PROJECT NAME”

“INSERT CONTRACT NUMBER”

NON-CONFORMANCE NOTICE

To: __________________________________________

You are hereby notified that □ tests / □ inspection / □ survey checks indicate that the

___________________________________________________________

does not conform to requirements of the Specification/Drawing. The Specification/Drawing
violated is Section ______, Clause __________, Drawing Number ___________. Under
the provisions of the Specification/Drawing, the requirements are:

___________________________________________________________

Non-conforming work may be required to be removed and replaced at no cost to the
Employer.

It is your responsibility to determine the corrective action necessary, and to determine
whether you wish to discontinue operations until additional investigation confirms or
refutes the initial findings.

Your proposed remedial action should be submitted for review.

_________________________________________ __________
Project Manager       Date

Non-conformance Notice was received by Contractor on ______________________

_________________________________________ __________
Contractor’s representative       Date

REMEDIAL ACTION APPROVED:

___________________________________________________________

___________________________________________________________

___________________________________________________________

REMEDIAL ACTION COMPLETED:

_________________________________________ __________
Project Manager       Date
CA13. SURVEY CHECKS

One of site supervision roles is to ensure that the Contractor's work is to the specified quality. This includes checking that work is to the dimensions and tolerances required by the Contract, even though the Contractor is fully responsible for the accuracy of setting out.

There may be certain stages of construction where the Contract specifically requires the Contractor to stop and await a survey check and approval/acceptance before covering up the work. If the Contract does not specifically have such a requirement, the Project Manager can direct the Contractor not to proceed beyond a certain construction stage (and cover up work) until a survey check has been done, and approval/acceptance has been given.

PROCEDURES

1. The Project Manager will review the Contract Documents and the Contractor's proposed quality assurance procedures to identify any mandatory check points requiring approval/acceptance and will compile a list of requirements, with the relevant clause number.

2. The Project Manager will decide on any other check points. These check points will be incorporated into this Procedure.

3. The Project Manager will advise the Contractor on what is to be checked.

4. Standard procedures will be agreed between the Project Manager and the Contractor.

5. The practice of the Contractor using Agency’s survey information to correct deficiencies will not be allowed. The Contractor will not be given the full survey information but merely advised that a section is acceptable or not.

6. If survey checks show that the work conform to the specified requirements, the Surveyor will orally advise the Project Manager and the Contractor and note this in his survey record. This will be followed by confirmation in writing.

7. If results are non-conforming, the Surveyor and Project Manager will discuss and the Project Manager will decide either:
   - for a minor non-conformance, the Contractor may either leave as is or carry out some minor rework, or
   - for a serious non-conformance, rework, etc., and resubmission is necessary.

8. All non-conformances will be advised in writing to the Contractor using the Non-conformance Notice (see Procedure CA12 - Quality Control – Field Inspection).
RESPONSIBILITIES

The Project Manager is responsible for compiling a list of check points.

The Project Manager is responsible for ensuring that the system reflects the requirements of the Contract and that the system is followed.

The Project Manager's delegates are responsible for:

- ensuring that the system works on a day-by-day basis;
- the Project Manager is advised of potential problems;
- ensuring results pass promptly to the Contractor; and
- ensuring that all areas/sections that are to be checked, do in fact get checked and eventually conform to requirements.

RECORDS

List of Survey Check Points.
Surveyor's work files
Computerised calculations - original and back-up files and hard copy
File XXXX.015.01 - Non-conformance Notices and Corrective Action
File XXXX.014.03 – Survey, Setting out and Control
Contractor's submission of corrective action

ATTACHMENTS

Nil.
CA14. PHOTOGRAPHS

Regular photographs document a pictorial progress of work and provide a record of issue related events.

PROCEDURES

1. Site staff will photograph special features or issues as they occur.

2. Where the Agency is responsible for the taking of progress photographs, the Project Manager will arrange twice monthly photographs of all major parts of the project. Where possible, such photographs will be taken from the same vantage point to provide a clear comparison of progress.

3. Where the Contractors are responsible for the taking of photographs, Project Manager will instruct the Contractor as to where photos are to be taken by means of a “Photographs to be Taken” form. Project Manager will monitor the Contractor to ensure that photos have been taken. On delivery of the photographs by the Contractor, the Project Manager will check them for compliance.

4. After verification that the photographs are as required (using the “Photographic Record” checklist), Project Manager will pass them to the Office Manager who will allocate numbers to the albums, update the Album and Negative Registers and store the negatives. Negatives are to be stored in envelopes which show:
   - negative roll number (shown on a sticker on the first negative strip),
   - date of the first frame, and
   - date of last frame.

5. Photographers will maintain a Photographic Register which will be forwarded to the Office Manager together with the prints and negatives.

RESPONSIBILITIES

The Project Manager will arrange twice monthly record photographs.

Site staff will photograph events, special features and issues as they occur. They will prepare a Photographic Register for each roll of film.

Site staff will instruct the Contractor in the taking of progress photographs and ensure that the required photographs are submitted.

The Office Manager will establish and maintain Album and Negative Registers and store albums and negatives in an appropriate manner.

RECORDS

Photographic Register
Photo Album Register
Photo Negatives Register
Instruction for taking of Photographs form
Photographic Record Checklist

ATTACHMENTS

Photographic Register
Photo Album Register
Photo Negatives Register
Instruction for taking of Photographs form
Photographic Record Checklist
PHOTOGRAPHIC REGISTER

<table>
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<tr>
<th>Roll No.</th>
<th>Frame No.</th>
<th>Title of Frame</th>
<th>Date Taken</th>
<th>Photographer</th>
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PHOTO ALBUM REGISTER

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<th>Album No.</th>
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<th>No. of Photos</th>
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</table>
“INSERT PROJECT NAME”

“INSERT CONTRACT NUMBER”

PHOTO NEGATIVES REGISTER

<table>
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<tr>
<th>Negative Set No.</th>
<th>From (Date)</th>
<th>To (Date)</th>
<th>No. of Photos</th>
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“INSERT PROJECT NAME”

“INSERT CONTRACT NUMBER”

INSTRUCTION FOR TAKING OF PHOTOGRAPHS

In accordance with clause _______ of the Specification, you are instructed to take the following photographs:

<table>
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<tr>
<th>Location</th>
<th>Description</th>
<th>No. Required</th>
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The photographs are to be taken in the period from __________ to __________ and be submitted in the specified format and numbers by ________________.

__________________________________  _____________________  
Project Manager       Date
PHOTOGRAPHIC RECORD CHECKLIST

File No: ______________

ALBUM NO: ______________

Are there 2 Albums? ______ ______
Have the negatives been supplied? ______ ______
Are the negatives 35mm size? ______ ______
Does date appear on negative/prints? ______ ______
Are the colour prints of specified size? ______ ______
Are the same prints in both albums? ______ ______
Are the prints suitably captioned? ______ ______
Do the captions show roll/frame numbers? ______ ______

Remarks:
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________

________________________________________  ____________________
Project Manager        Date
CA15. QUALITY AUDITS

Quality Audits are necessary on projects, where construction is carried out under a Quality Assurance System, to detect procedures which are at variance with those set out in the Contractor’s approved plan.

PROCEDURES

1. The Project Manager will prepare a Quality Audit Plan for the project which will specify the scope, type and frequency of Quality Audits to be undertaken. Audits may be of the following types:

   - procedures audit;
   - systems audit; or
   - product audit.

   The Quality Audit Plan will be located in the Quality Control Manual (QCM)

2. The auditor will give at least 7 days' notice in writing to the Contractor of the intended audit and will specify which aspects of the work are to be audited.

3. Prior to the audit being undertaken, the auditor will prepare checklists of specific details of procedures to be audited.

4. At the start of the audit, the auditor will hold an audit opening meeting to explain the purpose and procedure to be adopted for the audit with all persons involved in the audit. Attendees at the meeting will complete an attendance sheet.

5. The auditor will undertake the audit using the prepared checklists. Any non-conformances will be noted and details entered on Non-conformance Notification and Corrective Action Request forms. Separate forms will be completed for each non-conformance.

6. At the completion of the audit, the auditor will hold a closing meeting with the Contractor and the Project Manager to explain the results of the audit and to hand over any Non-conformance Notifications and Corrective Action Requests. The Contractor will sign the requests signifying that he understands the nature of the non-conformance.

7. The auditor will forward an audit report to the Contractor within 14 days, giving a full account of the audit undertaken. A copy of the audit report will be forwarded to the Project Manager.

8. The Project Manager will ensure that the Contractor proposes a disposition to correct each non-conformance and undertake action to prevent a recurrence of any non-conformance. The Project Manager must concur with the proposed disposition for it to be considered acceptable.
9. The Project Manager will follow up on any proposed actions as a result of the audit and will complete the close out section of the forms when action has been undertaken in a satisfactory manner.

RESPONSIBILITIES

The Project Manager will:

- prepare a quality audit plan for the project;
- ensure that the Contractor proposes dispositions for non-conformances and corrective actions; and
- concur with proposed satisfactory dispositions and follow up on any dispositions or corrective actions to be undertaken.

The auditors will:

- give notice of intended audits;
- prepare checklists for use during an audit;
- undertake the audit and complete any necessary Non-conformance Notifications and Corrective Action Requests;
- maintain records of quality audits undertaken.
- complete an audit report for each audit.

RECORDS

Quality Audit checklists (Refer Quality Control Plan)
File XXXXX.015.02 - Audit Reports
File XXXXX.015.01 - Non-conformance Notices & Corrective Action Request Forms

ATTACHMENTS

Non-conformance Notice
Corrective Action Request
“INSERT PROJECT NAME”

“INSERT CONTRACT NUMBER”

NON-CONFORMANCE NOTICE

To: 

You are hereby notified that □ tests / □ inspection / □ survey checks indicate that the 

__________________________

__________________________

__________________________

__________________________

does not conform to requirements of the Specification/Drawing. The Specification/Drawing violated is Section _______, Clause __________, Drawing Number ___________. Under the provisions of the Specification/Drawing, the requirements are:

Non-conforming work may be required to be removed and replaced at no cost to the Employer.

It is your responsibility to determine the corrective action necessary, and to determine whether you wish to discontinue operations until additional investigation confirms or refutes the initial findings.

Your proposed remedial action should be submitted for review.

_________________________________________  __________
Project Manager       Date

Non-conformance Notice was received by Contractor on ______________________

_________________________________________  __________
Contractor’s representative    Date

__________________________________________

REMEDIAL ACTION APPROVED:

__________________________________________

__________________________________________

__________________________________________

REMEDIAL ACTION COMPLETED:

_________________________________________  __________
Project Manager       Date
**CORRECTIVE ACTION REQUEST**

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<th>Audit No.</th>
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<td>Date of audit:</td>
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<tr>
<td>Auditor:</td>
<td>Contractor’s Representative:</td>
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<td>Area audited:</td>
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</tbody>
</table>

**Non-conformance:**

**Signature:**

Contractor’s Representative  Date

**Signature:**

Auditor  Date

**Corrective action proposed:**

**Date for completion of corrective action:**

**Signature:**

Contractor’s Representative  Date

**Signature:**

Project Manager  Date

**Corrective action implemented:**

**Signature:**

Project Manager  Date
CA16. SITE MEETINGS AND MINUTES

Regular, properly conducted meetings, with agreed minutes, ideally should reduce the number of contractual letters between the Project Manager and Contractor.

PROCEDURES

1. Site meetings will be held on a regular basis at intervals of not more than one month.

2. Where a project involves more than one contractor, an initial co-ordination meeting with all contractors will be held and subsequent meetings held between two or more contractors on an as-required basis.

3. The procedure to be adopted will be agreed at the initial Site Meeting to be convened soon after the award of the Contract (see Procedure No. CA06 - Project Commencement). Matters which will be agreed include the following:
   - frequency of meetings;
   - time and location of meetings;
   - personnel to attend;
   - recording of minutes.

4. The Project Manager will arrange the meetings and set an agenda. Meetings will follow a standard agenda including the following general topics:
   - matters arising from previous meeting and confirmation of previous minutes;
   - review of progress and any problems;
   - review of planning;
   - outstanding correspondence;
   - new matters raised by Contractor;
   - new matters raised by Project Manager;
   - next meeting.

5. Discussions on individual matters should not be allowed to become too prolonged. If an issue cannot be resolved satisfactorily or requires further discussion, a special meeting should be arranged to deal with the topic. This will then allow the meeting to progress onto the other matters on the agenda.

6. The regular Site Meeting should not be used for discussing claims or contentious issues, these being left to special meetings, possibly with fewer people in attendance, and after further research.

7. As soon as possible after the meeting a draft set of minutes will be prepared by the Project Manager. Minutes will be limited to the recording of progress, agreements, approvals, requests and decisions and must never attempt to record everything said. Copies of the draft minutes will be forwarded to the Project Manager and Contractor and any agreed changes incorporated.
8. After agreement, the minutes will be signed by the Project Manager and Contractor.

9. If the Contractor does not agree with the minutes, a note of the point(s) of disagreement is to be attached to the file copy of the minutes.

10. Copies of the signed minutes will be placed on the appropriate file and forwarded to the Contractor and to any person responsible for initiating some action.

11. Each meeting and minute will be numbered consecutively.

RESPONSIBILITIES

The Project Manager is responsible for:

- convening the meetings and preparing and circulating an agenda;
- checking and signing the minutes.

Project Manager’s delegates are responsible for advising the Project Manager of any items needed to be discussed at the meetings.

The Project Manager is responsible for taking notes of the meetings, preparing minutes and obtaining signed copies of the agreed minutes.

RECORDS

File XXXX.007.02 - Record of Meetings with Contractor

ATTACHMENTS

Sample of Agenda
Minutes of Meetings Proforma
MEETING AGENDA

Agenda for Meeting No. ___ to be held in the Project Manager's Office at _____ hours on ______________, 200__.

1. Matters arising from Previous Meeting
2. Progress of Works
   a. Temporary Works
   b. Materials Processing - General
   c. Permanent Works: [Separate into main features]
3. Planning of the Works
4. Problems (Technical and Contractual)
   a. Existing
   b. Potential
5. Outstanding Correspondence
6. New Matters Raised by Contractor (Technical and Contractual)
7. New Matters Raised by Project Manager (Technical and Contractual)
"INSERT PROJECT NAME"

"INSERT CONTRACT NUMBER"

MINUTES OF MEETING No. ___

Meeting held in the Project Manager's Office on ______________ 200__ at ___________ hours.

Present

Employer: Project Manager: Contractor:

______________ _______________ ________________
______________ _________ ______ ________________
______________ _________ ______ ________________
______________ _________ ______ ________________
______________ _________ ______ ________________

1. Matters Arising From Previous Meeting

2.

3.

4.

etc

Meeting closed at _______________ hours.

Minutes of Meeting Agreed:

________________________________ ______________________________
Project Manager Contractor
CA17. GENERAL MEETINGS

Regular meetings are necessary to keep all site staff and the client informed of progress and problems.

PROCEDURES

1. Within the first month after the project commencement, the Project Manager will produce a schedule of all required meetings (other than formal meetings with the Contractor under Procedure CA16 - Site Meetings and Minutes) such as those required to be held with the client and for internal purposes.

2. The Project Manager will nominate a chairperson who will organise the meetings and prepare and distribute agenda.

3. For all meetings, other than internal staff briefings organised by the Agency, minutes will be prepared by a person nominated by the chairperson.

4. The chairperson will ensure that minutes are produced and circulated to attendees. The format of the minutes will be similar to that set out in Procedure CA16 - Site Meetings and Minutes.

RESPONSIBILITIES

The Project Manager is responsible for preparing and updating the schedule of meetings and ensuring the meetings take place as scheduled.

Project Manager is responsible for chairing meetings for which they are nominated as chairperson.

Other site staff are responsible for attending and participating/contributing to the proceedings, as required/necessary.

RECORDS

Minutes of meetings

ATTACHMENTS

Nil.
CA18. MONITORING OF PROGRESS

Regular monitoring and documentation of the progress of construction is essential to provide a measure of project performance, a record of progress and an "as-built" program useful for an analysis of delay claims.

When delays and subsequent claims arise, the construction schedule will be an important reference point. It is imperative that the construction schedule be understood and used properly. When the critical path changes, the reasons must be recorded so that the information is available for any dispute that may arise.

PROCEDURES

1. At the start of the project, the Project Manager will establish the initial Contractual Program on either suitable computer software or paper based Gantt Chart. This program will be based on the one submitted by the Contractor for the Project Manager's consent and will be in sufficient detail to identify individual features and the critical path(s).

2. Where possible, the same software as the Contractor will be used so as to facilitate data exchange.

3. The Contractual Program will be fixed as a "baseline" program and actual progress input periodically to give a comparison between planned and actual progress.

4. As work progresses, actual progress data will be input on a regular basis for comparison with that planned in the Contractual Program. The progress data will be entered at least monthly but shorter periods may be preferable if the activities are of short duration and critical.

5. As they occur, delays will be input and analysed to determine whether or not an extension of time is applicable.

6. Project Manager will maintain a special set of drawings and/or schedules on which progress, date of placement, erection or installation, date of inspection and of acceptance of various features of the work will be recorded.

7. Drawings and/or charts will be prepared for each major item of work such as, but not limited to, the following examples:

   - excavation
   - earthworks
   - road pavements
   - bridge substructures
   - bridge superstructures
   - anchor bars, rock bolts
   - foundation drainage
   - drilling
   - grouting, including water pressure testing
• concrete placement
• embedded metalwork, including pipes
• structural steelwork erection
• pipework, internal and external
• architectural finishes
• tunnel/shaft operations.

RESPONSIBILITIES

The Project Manager is responsible for setting up and monitoring the overall progress on the accepted Contractual Program.

The Project Manager’s delegates are responsible for monitoring progress and maintaining detailed records for each area under their responsibility and passing the relevant information to the Project Manager.

RECORDS

Contractor’s approved program
Electronic data of program or Gant Chart

ATTACHMENTS

Nil.
CA19. FINANCIAL PROGRESS MONITORING

Effective contract management requires a system that will provide a realistic forecast of expenditure.

PROCEDURES

1. The Project Manager will check the theoretical cashflow estimates submitted by the Contractor based on the accepted construction program and major BOQ items.

2. Actual expenditure based on Interim Payments will be plotted and compared with the theoretical cashflow diagram.

3. When actual expenditure varies by 5% or more from the predicted cashflow, the Project Manager will request the Contractor to submit a revised cashflow estimate.

RESPONSIBILITIES

The Project Manager is responsible for ensuring that the Contractor submits cashflow estimates, for checking the accuracy of these cashflow estimates and for monitoring actual expenditure.

RECORDS

Cashflow estimates
Cashflow diagram
File XXXXX.009.02 - Financial Control.

ATTACHMENTS

Nil.
CA20. PROGRESS REPORTS

As part of the recording system for the contract the site staff are required to produce progress reports. These reports summarise the progress for the reporting period and note specific events during the period in order that the client and financing agencies are kept formally informed about the project on a regular basis.

PROCEDURES

1. In order that reports are produced in a timely fashion, the Project Manager will set a report “close-off” date. This will be typically by the 26th of the month.

2. Project Manager’s delegates will prepare the required input for sections which have been allocated to them and forward it to the Project Manager no later than 3 working days before the “close-off” date.

3. Drawings detailing progress for the various project features will be prepared on an appropriate CAD package and, where access to a colour photocopier is available, reproduced in colour.

4. The Project Manager will prepare the required input for sections which have been allocated to him, will edit the various contributions to ensure common phraseology and will monitor preparation of the report to ensure that it is submitted to the Employer no later than 7 working days after the end of the reporting period.

5. The Office Manager will arrange typing, printing, binding and dispatch of the report.

6. Copies will be distributed to:

   Employer (to be agreed)
   Financing agency (to be agreed)
   Project Manager 1
   Site 2

RESPONSIBILITIES

The Project Manager is responsible for preparing input for allocated sections of the report and for editing and checking the report.

The Project Manager’s delegates are responsible for preparing input for allocated sections of the report.

The Office Manager is responsible for arranging typing, printing, binding and dispatch of the report.

RECORDS

Monthly Report
File XXXXX.007.01- Reports to Employer
ATTACHMENTS

Sample Monthly Report Table of Contents and task list
MONTHLY REPORT

SAMPLE CONTENTS AND TASK LIST

<table>
<thead>
<tr>
<th>Section</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIST OF FIGURES</td>
<td>Office Manager</td>
</tr>
<tr>
<td>LIST OF APPENDICES</td>
<td>Office Manager</td>
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<td>LIST OF PHOTOGRAPHS</td>
<td>Office Manager</td>
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<tr>
<td>EXECUTIVE SUMMARY</td>
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<td>Project Manager</td>
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<td>ISSUES</td>
<td>Project Manager</td>
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<td>1. PROJECT DESCRIPTION</td>
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<td>1.1 PROJECT DESCRIPTION</td>
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<td>General Description</td>
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<td>Scope of the Works</td>
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<td>1.2 THE CONTRACT</td>
<td>Project Manager</td>
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<td>Project Manager</td>
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<td>Contract Price</td>
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<td>2. ISSUES TO BE RESOLVED</td>
<td>Project Manager</td>
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<td>3. WORKS ACTIVITIES</td>
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<tr>
<td>3.1 DESIGN</td>
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<td>3.2 CONSTRUCTION</td>
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<td>4. QUALITY ASSURANCE/QUALITY CONTROL</td>
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<tr>
<td>5. SITE SAFETY</td>
<td>Project Manager</td>
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<td>6. CONTRACTOR’S RESOURCES</td>
<td>Project Manager</td>
</tr>
<tr>
<td>6.1 PERSONNEL</td>
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<tr>
<td>6.2 PLANT AND EQUIPMENT</td>
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<tr>
<td>6.3 SUB-CONTRACTS</td>
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<td>7. PROGRAM AND PROGRESS</td>
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<td>8. FINANCIAL</td>
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<tr>
<td>8.1 CONTRACT PAYMENTS</td>
<td>Project Manager</td>
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<td>8.2 VARIATIONS</td>
<td>Project Manager</td>
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<td>8.3 DAYWORKS</td>
<td>Project Manager</td>
</tr>
</tbody>
</table>
8.4. CLAIMS  Project Manager
9. SITE STAFFING  Office Manager
10. SITE VISITORS  Office Manager

FIGURES
1  Project Layout  Office Manager
2  Site Organisation Chart  Office Manager
3  Project Program  Project Manager
4  Project Progress - Feature 1  Project Manager
5  Project Progress - Feature 2  Project Manager
6  Project Progress - Feature 3  Project Manager
7  Project Progress - Feature 4, etc.  Project Manager

APPENDICES
1  Meteorology Records  Project Manager
2  Site Staffing  Office Manager
3  Contractor's Staffing Report  Project Manager
4  List of Subcontractors  Project Manager
6  Contractor's Plant and Equipment List  Project Manager
7  Financial Summary  Project Manager
   7.1 Summary of Interim Statement for the Month  Project Manager
   7.2 Summary of Progress Payments  Project Manager
   7.3 Summary of Variation Orders  Project Manager
   7.4 Summary of Daywork Orders  Project Manager
   7.5 Summary of Request for Prices  Project Manager
   7.6 Summary of Notices of Intention to Claim  Project Manager
   7.7 Summary of Claims  Project Manager
   7.8 Revised Estimated Value of Works  Project Manager
CA21. MEASUREMENT AND CERTIFICATION OF QUANTITIES

Under the Conditions of Contract the Project Manager is required to determine the value of the Works (Refer clause 42.2 of Conditions of Contract).

The intention of this procedure is to ensure that correct Interim Payment Certificates are produced quickly and that a minimum of effort is required to finalise quantities at the completion of the Contract.

PROCEDURES

1. SUMMARY

It is mandatory to give reasonable notice to the Contractor when taking measurements is intended. The Notice of Measurement form will be used to give notice.

The Project Manager’s and Contractor’s staff must meet regularly to review measurement records and quantity calculations. These meetings must ensure that all items are measured and measurements, calculations, etc., are correct. Items for which agreement cannot be reached will be recorded. Payment will be made of the quantity calculated by the Project Manager’s staff until the differences are resolved.

The Interim Statements will be checked against the QS forms and other calculations made by site staff. Pay quantities will be reconciled or provisional payments will be made on Project Manager’s calculations and payment will be corrected on a following Interim Certificate.

The Project Manager will review Interim Statements based on QS Forms, calculations and other data submitted to him by site staff and the Contractor. Interim Statements will be reviewed by the Project Manager and certified by him prior to forwarding to the Employer for payment.

2. MEASUREMENTS

The system of measurement adopted for each item will be agreed between the Project Manager and the Contractor. These systems will be chosen for practicality and economy in use of staff and accuracy in meeting provisions of the Contract. All final agreements with the Contractor will be recorded and placed on File No. XXXX.009.08 - Measurement of Work.

Quantities upon which payments will be made fall into three categories:

- quantities calculated from drawings using measured field dimensions and levels
- quantities physically measured in the field
- quantities based on weight either calculated or physically weighed.
21..2.1 Quantities calculated

Quantities for such items as concrete paid for on the basis of volume will be calculated from pay lines shown on the Drawings, within the limits specified for the appropriate items. All calculations will refer to the appropriate drawings used and to field directions, if issued, to amend or clarify drawn dimensions. Field measurements will indicate work under each item completed within the specified limits.

21..2.2 Quantities physically measured

In all cases the measurement should be witnessed by a representative of the Contractor and QS forms jointly certified. If a representative of the Contractor is not present, this will be noted on the QS form.

Specific methods for dealing with items embedded in concrete, non-embedded items and the use of surveyed cross-sections are dealt with in following sections of this Procedure.

21..2.3 Quantities based on weight

Where the Contract calls for items to be paid at a unit rate per kilogram or tonne the methods of measuring such items will be agreed with the Contractor. The following guidelines will be used:

- computations of mass will be used only for recurrent items of regular shape which cannot be easily weighed, i.e. mass of structural steel shall be based on dimensions shown on shop drawings and the mass calculated using 7,850 kg/m³;
- individual small items will be weighed, if convenient, on approved scales which can be checked;
- the mass of large items of equipment or machinery will be accepted on the basis of weighbridge dockets which must record the mass of all tare blocking and packing. Alternatively, manufacturer's shipping weights will be acceptable;
- the mass of multiple items such as reinforcing bars, rails, pipe specials and valves, etc, will be accepted if obtained from manufacturer's lists or catalogues. Very small items such as nuts, bolts, washers will be weighed in bulk and averaged to obtain individual mass if necessary; and
- the mass of coating materials, paint, gaskets, welding runs, grout and caulking materials applied at site are not included in computing mass for payment. Waste, off cuts and rolling margins will be disregarded.

3. SPECIFIC METHODS OF MEASUREMENT

The following are specific methods which will be used for certain items of work to obtain the necessary accuracy and avoid duplication of payment. These methods relate mostly
to items which cannot be checked later and require formal check out when the work is performed.

21.3.1 Reinforcing bars

Reinforcement will be checked out in place prior to placing concrete.

Measurement of the bars may be computed from bar bending schedules in advance but changes made in the placement will be recorded. Consequently, the Contractor's claim for payment will be accompanied by calculations for the original placement and a certified copy of the “Adjustment to Reinforcing Bars” Form if necessary.

21.3.2 Embedded and non-embedded materials

Where a concrete placement includes the embedment of metal work, waterstops, ducts, brackets, etc, the Contractor is responsible for ensuring correct installation in the placement. Site staff are required to verify this before placement.

Measurement will be made at the time of this verification using the “Embedded Materials Check-out Sheet”. Only the materials actually checked in each placement will be recorded, i.e. where a pipe traverses more than one placement only the actual length in the placement will be recorded, otherwise duplication may occur. The form will be filled out in duplicate and jointly signed by both parties. The remaining details will be completed prior to submission of a claim for payment and will be accompanied by the relevant QS forms for each item claimed. The form will be prepared in advance as a check list prior to inspection, listing every item to be installed.

The Project Manager will check the pay quantity against the Contract provisions, field directions and documented amendments.

21.3.3 Surveyed cross-sections

Where excavation is made to lines not actually defined on the Drawings or where large mass excavations are to be paid on the basis of surveyed cross sections, the procedures for measurement will be as follows:

- a survey will be made of the original ground surface (after stripping) and before excavation is commenced. Further surveys will be made when portions of the work are to be measured for payment;
- all surveys will be made jointly with the Contractor;
- Site surveyor and the Contractor will prepare the appropriate plotted outputs, compare and agree them;
- contract pay lines will be superimposed where required and the pay quantities computed to obtain agreed quantities;
- the QS form will then be issued certifying the agreed measurement and quantity for payment. No further check will be required by the Project Manager; and
- all survey notes, computations and plotted outputs will be signed by the Site surveyor and the Contractor's representative.

4. QUANTITY SURVEY FORM

This form is the basis of payment and is a contractual document which will be treated as a record for safe keeping until the Contract is finalised.

The following will be recorded:

- BOQ item being measured;
- the location of the work performed;
- the measurements recorded;
- the unit of measurement for payment; and
- the agreed quantity.

No alteration is to be made to a QS form unless both parties sign the alteration.

All QS forms will be numbered to identify the BOQ Item and the number of QS forms issued for that Item as follows:

XX.XX/XX/YY, where

XX.XX = Item number in BOQ e.g. 03.08/01 - Random backfill
YY = Two digit sequential numbering 01,02,03, etc

QS forms will be filed by the Project Manager who will be responsible for their safe-keeping.

QS forms will be filed under individual Bills, e.g. all QS forms issued for Bill 5 will be filed together, those for Bill 6 in a separate file, etc. Subdivision into separate items will be done by using dividers. The front of each file subdivision will contain a summary of quantities paid under that item identified by monthly payment and accumulated total.

Pay quantities in Interim Statements will be rounded off to the nearest unit. The final Progress Payment will be certified to the nearest tenth of a unit.

5. PREPARATION OF THE QS FORM

The manner in which a QS form is made out cannot be standardised but the following basic rules will apply:

- both the Contractor and site staff will sign any alterations made to QS forms;
• cancellation to only part of a form will not be made but the whole form will be cancelled or superseded. A new QS form for the same work will record that a previously issued form has been cancelled;

• where the work is completed the QS form representing the final measurement will be recorded as "FINAL" and "Work Completed" written on the form;

• if an actual measurement is not made and a provisional payment is agreed upon with the Contractor the QS form will state "Provisional Payment" and the agreed quantity to be paid. All previous provisional payments will be cancelled by the issue of a QS form when measurements and/or calculations are made to finalise a pay quantity; and

• supporting data, cross sections, drawing numbers, field directions, etc will be listed for identification in support of the QS form.

6. CALCULATIONS

All calculations will be made on standard Calculation Sheets. It is essential that calculations are clear, concise and set out to make for easy verification and cross checking. The accuracy to which calculations are made will be determined firstly by the order in which inaccuracies are magnified and secondly by the unit rate at which the relevant quantity will be paid.

As a general rule the following will be adopted:

• where constants or factors are adopted they will be agreed with the Contractor and placed on File XXXX.009.08; and

• quantities will not be rounded off in calculations. This will be done by the Project Manager as set out above.

RESPONSIBILITIES

The Project Manager is responsible for ensuring that the physical measurement on site of the Contractor's work is carried out. He will delegate specific responsibilities to site staff for the taking of field measurements and the preparation of calculations to support the quantities certified for payment. He is responsible for examination of the Contractor's Interim Statements and for preparation of Interim Payment Certificates. He will prepare specific procedures for implementing submission of such data and reconcile all differences with the Contractor on measurement and payment.

Site staff are responsible for carrying out field measurements with the assistance of inspectors and preparing computations of quantities for payment or arranging for surveyors to undertake this work when required. They are also responsible for providing notification to the Contractor of intention to measure any part of the work.

Surveyors are responsible for carrying out all survey measurements and calculations.
RECORDS

Notices of measurement
Quantity Survey Forms
Calculation sheets
Computer outputs
Contractor's Interim Statements
File XXXX.009.03 - Interim Payments
File XXXX.009.08 - Measurement of Work
Agreed Survey Records
QS Form Files for Individual Items or Bills

ATTACHMENTS

Notice of Measurement Form
Quantity Survey Form
Summary of Quantities Form
Adjustment to Reinforcing Bar Quantity Form
Embedded Materials Check-out Sheet
NOTICE OF MEASUREMENT

<table>
<thead>
<tr>
<th>To:</th>
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</thead>
<tbody>
<tr>
<td>In accordance with Clause 42.2 of the Conditions of Contract, you are advised that measurements which will be used in calculating quantities will take place at:</td>
</tr>
<tr>
<td>Location:</td>
</tr>
<tr>
<td>BOQ Item No.:</td>
</tr>
<tr>
<td>Date:</td>
</tr>
<tr>
<td>Time:</td>
</tr>
</tbody>
</table>

Should you choose to have a representative present, he should liaise with ____________

NOTES

___________________________  ____________________________

Received by:  

Project Manager  
Contractor's Representative

Date  
Date

Government of Papua New Guinea
Procedure CA21 Measurement and Certification of Quantities  
Edition 1, Revision 1

Page CA21 - 7  
Issue date: August 2004
“INSERT PROJECT NAME”

“INSERT CONTRACT NUMBER”

QUANTITY SURVEY FORM - BOQ ITEM No. ________

QS Form No. XX.XX/XX/XX

Sheet _______ of _______

Description of Work:

Location: _______________________________________

Relevant Drawing Nos: ____________________________

Where applicable, sketches, measurements, calcs, etc, to be provided in this space

Agreed Quantity: _______________________

Agreed Between:

Contractor Project Manager

Date: _____________________
SUMMARY OF QUANTITIES

Sheet ____ of ____

BOQ ITEM No. ___________
Quantity in BOQ: __________
Rate in BOQ: ____________

<table>
<thead>
<tr>
<th>Date</th>
<th>Location</th>
<th>Dwg. No.</th>
<th>QS Form No.</th>
<th>Quantity</th>
<th>Sub Total</th>
<th>Cumulative Total</th>
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Government of Papua New Guinea
Procedure CA21 Measurement and Certification of Quantities
Edition 1, Revision 1  
Issue date: August 2004
ADJUSTMENT TO REINFORCING BAR QUANTITY

Sheet ____ of ____

Feature: ___________________________________ Refer QS Form No.: ________
Placement Location: _________________________ Drg No.: _________________

### ADDITIONS

<table>
<thead>
<tr>
<th>Bar Mk</th>
<th>Dia. (mm)</th>
<th>No. Off</th>
<th>Additional Length/bar (m)</th>
<th>Total Additional Length (m)</th>
<th>Mass per m</th>
<th>Additional Mass (tonne)</th>
<th>Reasons for Change</th>
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TOTAL ADDITIONAL MASS

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<th>Dia. (mm)</th>
<th>No. Off</th>
<th>Additional Length/bar (m)</th>
<th>Total Additional Length (m)</th>
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</table>

TOTAL DEDUCTED MASS

TOTAL NETT ADDITION/(DEDUCTION)

Contractor Project Manager

Date: ____________________
**EMBEDDED MATERIALS CHECK-OUT SHEET**

Feature: _____________________________ Sheet _____ of _____

<table>
<thead>
<tr>
<th>Drawing No.</th>
<th>Item No.</th>
<th>Description</th>
<th>Unit</th>
<th>Measurement</th>
<th>Measured by</th>
<th>BoQ Item No.</th>
<th>QS Form No.</th>
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</table>

Placement: ___________________________ Date __________

Placed: ______________________________

Project Manager ____________________ Contractor ____________________
CA22. INTERIM PAYMENTS

Payments can only be certified by the person with the delegated authority and that certification must be made within the time set out in the Contract. Checking of the Interim Statements must be done in a timely manner within these constraints.

PROCEDURES

1. Work will be measured for payment in accordance with Procedure CA21 - Measurement and Certification of Quantities.

2. The Project Manager will discuss quantities and amounts with the Contractor before an Interim Statement showing the quantities and value of work done for the month is submitted by the Contractor.

3. If there is no agreement with the Contractor on quantities or value, the Project Manager will correct the submitted Interim Statements.

4. Within 21 days [or as specified in the contract] of receipt of the initialled Interim Statement the Project Manager will sign the Statement, prepare an Interim Payment Certificate and deliver both to the Employer.

RECORDS

Survey and measurement records
QS Forms
Contractor's Interim Statement
Interim Payment Certificates
File XXXX.009.03 - Interim Payments.

ATTACHMENTS

Sample Interim Payment Certificates.
In accordance with Clause 42 of the Conditions of Contract, it is hereby certified that under the terms of the Contract the sum of (__________) is payable to (__________________________) on account of Statement No.______________.

<table>
<thead>
<tr>
<th></th>
<th>Amounts to date</th>
<th>Amounts previously certified</th>
<th>Amount this Certificate</th>
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</thead>
<tbody>
<tr>
<td>Permanent Works</td>
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<td>Variations</td>
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<td>Dayworks</td>
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<td>Materials on Site</td>
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<td>Sub-total</td>
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<td><strong>DEDUCTIONS</strong></td>
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<td>Repayment of advances</td>
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<td>Taxes</td>
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<tr>
<td>Total deductions</td>
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<tr>
<td>Net totals</td>
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</tbody>
</table>

Rates of exchange: 1____________ = _____________
1____________ = _____________
1____________ = _____________

**NET AMOUNTS PAYABLE**

<table>
<thead>
<tr>
<th>Currency</th>
<th>[Amount in words]</th>
<th>[Amount in figures]</th>
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</thead>
<tbody>
<tr>
<td>Currency</td>
<td>[Amount in words]</td>
<td>[Amount in figures]</td>
</tr>
<tr>
<td>Currency</td>
<td>[Amount in words]</td>
<td>[Amount in figures]</td>
</tr>
</tbody>
</table>

Project Manager
CA23. ISSUES

Issues are circumstances that could result in future monetary or extension of time claims or necessitate variations.

Issues can be resolved rapidly, or can advance into claims or variations.

Each issue must be tracked until it is resolved or superseded by a variation or a claim, at which time it is transferred to the appropriate claims or variations register.

PROCEDURES

1. When an issue becomes known, the Project Manager will enter the details in the Issues Register.

2. All relevant documentation to do with a particular issue will be placed on the Issues file, with a divider being used for each issue.

3. If the issue evolves into a claim, or a variation is issued, the Issues Register will be noted with this fact and the documentation will be removed to the particular claim or variation file.

RESPONSIBILITIES

All site staff are responsible for notifying the Project Manager of any issue.

The Project Manager is responsible for completing and maintaining the Issues Register.

RECORDS

File XXXXX.006.01 - Issues
Issues Register

ATTACHMENTS

Nil.
CA24. VARIATIONS

Variations occur in instances such as when design modifications are made or additional work is directed. Variation is deemed to be any change in the price or sequence within the original document.

It is important that, once it is realised that a variation is required, the instructions must be issued promptly to minimise any adverse effects this may have on the overall works.

Project Manager must always seek approval before issuing a variation when the Departmental Head has delegated this authority to the Project Manager. Because this process can be time-consuming, it is important that the Employer be presented with all known information and details about a variation so he is in a position to make a prompt decision.

A material change to the contract is where the variation departs from the original intent of the contract. For example if the road maintenance contract is to be varied to include some new road construction, then this is deemed to be a material change.

Excessive variations can result in claims for payment over and above the cost of carrying out the work. Such claims may include increased overheads, extensions of time and other ripple effects not foreseen when individual variations are being processed.

Care must be taken with the timing of issue of variations. If the contract period has passed, the issue of a variation could affect the recovery of liquidated damages. The actual situation will depend on the particular contract conditions.

PROCEDURES

1. If "Approved for Construction Drawings" and/or specifications are revised, the Project Manager will determine if the change constitutes a variation to the Contract, its extent and the terms and conditions under which the variation will be implemented. Extra work should not be ordered or changed drawings issued unless accompanied by a variation order.

2. If necessary, approval of the Employer will be sought. Refer to approval process below.

3. If possible, the value of the variation will be agreed with the Contractor before the variation is ordered.

4. If the Contract does not contain any applicable rates or prices for the varied work, the Project Manager will forward a Request for Price form to the Contractor seeking new rates or prices.

5. If, after consultation with the Employer and the Contractor, a suitable rate or price cannot be agreed, the Project Manager will determine a rate or price for the work. This will be notified in writing to both the Contractor and the Employer.
6. See Procedure CA05 - Contractual Correspondence for wording of variation and fixing of rates.

7. Approval Process

Section 32 (2) of the Public Finance Management Act enables designated officers to approve Variations to contract as regards price, or other conditions within such limits as are specified in the Financial Instructions.

The flowchart below indicates the limits of delegation and process to be used.

Where more than one price variation occurs in relation to a contract the cumulative (total) of all the price changes must be less than a 10% increase from the originally approved price, for the Departmental Head to be able to approve the variation. Where the price variation is greater than 10%, the Agency must get a new Approval to Pre-commit (APC) and request approval for the variation from the appropriate Contracting Authority (either STB Chairman or Governor General). APC are not required for projects 100% funded by either Aid or Donor Agencies.

In all instances the Section 32 Officer must also confirm that financial authority is available to vary the contract. This is in addition to the above requirements.
RESPONSIBILITIES

The Project Manager is responsible for:

- determining if a change constitutes a variation to the Contract, its extent and the terms and conditions under which the variation will be implemented;
- if necessary, obtaining the Employer’s approval for the variation;
- if holding the authority, issuing a Variation Order. If not holding the authority, forward the pertinent documentation to the appropriate person for signature.
- Determining the valuation of the variation.

Employers Responsibilities

- If necessary obtain approval for an APC
- If necessary, obtain approval for the variation from the contracting authority

RECORDS

Variations Register
Variation checklist
File XXXX.006.03 - Variation Orders
Request for Price form
Variation Orders

ATTACHMENTS

Variation checklist
Request for Price form
Sample Variation Order.
“INSERT PROJECT NAME”

“INSERT CONTRACT NUMBER”

VARIATION CHECKLIST

<table>
<thead>
<tr>
<th>Issue No:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of variation:</td>
</tr>
<tr>
<td>Location:</td>
</tr>
<tr>
<td>Work described in Specification?</td>
</tr>
<tr>
<td>Work shown on Drawings?</td>
</tr>
<tr>
<td>Variation recommended?</td>
</tr>
<tr>
<td>Applicable rates or prices in BOQ?</td>
</tr>
<tr>
<td>RFP issued?</td>
</tr>
<tr>
<td>Contractor's price proposal received?</td>
</tr>
<tr>
<td>Will variation effect Time for Completion?</td>
</tr>
<tr>
<td>Value of variation agreed with Contractor?</td>
</tr>
<tr>
<td>Effect on time agreed with Contractor?</td>
</tr>
<tr>
<td>Provisional rate necessary?</td>
</tr>
<tr>
<td>Provisional rate determined?</td>
</tr>
<tr>
<td>Rate fixed by Project Manager?</td>
</tr>
<tr>
<td>Employer’s approval necessary?</td>
</tr>
<tr>
<td>Employer’s approval received?</td>
</tr>
<tr>
<td>APC Received?</td>
</tr>
<tr>
<td>Variation No.:</td>
</tr>
</tbody>
</table>
In accordance with the provision of Clause 40.1 of the Conditions of Contract, the Contractor is hereby requested to submit, for the Project Manager's consideration, a quotation for the item(s) of work listed in the schedule below:

1. **SCHEDULE**

<table>
<thead>
<tr>
<th>Item No</th>
<th>Description</th>
<th>Unit</th>
<th>Quantity</th>
<th>Rate</th>
<th>Amount</th>
</tr>
</thead>
</table>

2. **DRAWINGS**

*State drawing numbers*

3. **SPECIFICATION**

In accordance with the relevant sections of the Specification and letter reference __________ dated ______________.

Requested by:

____________________________________________ ____________
Project Manager                          Date
The Contractor's Representative
ABC Contractors
123 Main Street
Sometown.

Dear Sir

“INSERT PROJECT NAME”

“INSERT CONTRACT NUMBER”

Variation Order No. __

Pursuant to sub-clause 40 of the Conditions of Contract, you are instructed to do the following:

• [specify].

The work shall be carried out in accordance with the Contract Specification and with Drawing No.____.

The value of this variation is agreed at _____________. The valuation includes allowance for the following:

• All direct costs associated with the varied work;
• All indirect costs and profit associated with the varied work;
• All impact costs associated with the varied work; and
• All costs associated with any ripple effects resulting from the varied work.

No adjustment to the Time for Completion will be made by reasons of the changes and/or additions instructed herein.

OR (if no price agreed)
The effect if any of this variation shall be valued in accordance with Clause 40.3.

Yours faithfully,

Project Manager
CA25. EXTENSIONS OF TIME

Claims for extensions of time are common in construction contracts and frequently are not responded to expeditiously, resulting in a dispute.

It is to be noted that it is not necessary that the Contractor submit a claim before the Project Manager may award an extension of time, but that it generally would be in the Contractor's interest to submit a formal claim.

It is also to be noted that it may be a provision of the Contract that the approval of the Employer be obtained before awarding an extension of time.

In some contracts, the grounds for an extension of time are listed. The Contract must be reviewed to identify these grounds.

There are 3 types of delays:

- Excusable, compensable (delays due to some act or omission of the Employer or Project Manager),
- Excusable, non-compensable (delays which are not the fault of either party), and
- Non-excusable (delays caused by the Contractor).

In order that a delay be excusable in the technical sense, the delay must directly affect the ultimate contract completion date, i.e. it must be on the critical path. A delay that is not immediately seen as being on the critical path may ultimately affect the end completion date as the critical path can change through other events. For this reason, it is necessary that an up to date program, tracking all delays, be maintained.

Concurrent delays affect the entitlement, both to time and costs. Where concurrent delays affect the critical path, the following is generally applied:

<table>
<thead>
<tr>
<th>Delay type</th>
<th>Concurrent with</th>
<th>Entitlement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excusable, compensable</td>
<td>Excusable, non-compensable</td>
<td>Time, no costs</td>
</tr>
<tr>
<td>Excusable, non-compensable</td>
<td>Non-excusable</td>
<td>Time, no costs</td>
</tr>
<tr>
<td>Excusable, non-compensable</td>
<td>Non-excusable</td>
<td>Neither time nor costs</td>
</tr>
</tbody>
</table>

Extension of time claims are often accompanied by a claim for prolongation costs. An extension of time does not of itself cause extra cost. To prove that delay damages are applicable, a contractor must show that:

- an act, or failure to act, by the Employer or Project Manager actually caused delay;
- the delay was unreasonable;
- there were no concurrent delays caused by the Contractor; and
- the delay caused an increase in the Contractor's costs.
Ambit, or total cost claims, are not accepted. It is necessary that the Contractor prove individual extra costs resulting from each variation, instruction or delay.

The types of costs that need to be considered in assessing delay damages are:

- extended overheads,
- idle labour,
- idle plant (ownership costs only),
- loss of productivity, etc.

Profit on delay damages is not applicable unless the Contractor can prove that delayed completion resulted in the loss of the opportunity to earn profit elsewhere using the resources that were delayed.

PROCEDURES

1. On receipt of a claim, the Project Manager will allocate a claim number and record the claim in the Extension of Time Claim Register.

2. The Project Manager will review the claim in conjunction with site staff and determine the entitlement of the Contractor. A checklist will be used to ensure that all aspects are considered in the review.

3. After approval from the Employer (if necessary), the Project Manager will prepare the advice of determination which will give details of the time awarded as well as the revised contract completion dates for the whole of the Works and for any separable sections.

4. When the determination is issued the Project Manager will complete the Register with details of the award.

5. The Project Manager will check that the Contractor submits a revised construction program that is updated to account for the revised completion dates.

RECORDS

File XXXX.006.04 - Extensions of Time
Extension of Time Claims Register
Extension of Time checklist

ATTACHMENTS

Extension of Time checklist.
EXTENSION OF TIME CHECKLIST

<table>
<thead>
<tr>
<th>Issue No:</th>
</tr>
</thead>
<tbody>
<tr>
<td>EOT Claim No.:</td>
</tr>
<tr>
<td>Contractor's claim reference:</td>
</tr>
<tr>
<td>Time claimed:</td>
</tr>
<tr>
<td>Costs claimed:</td>
</tr>
<tr>
<td>Time in calendar or working days?</td>
</tr>
<tr>
<td>Cause of delay:</td>
</tr>
<tr>
<td>Type of delay: Excusable, compensable/ excusable, non-compensable/ non-excusable</td>
</tr>
<tr>
<td>Applicable Contract clause:</td>
</tr>
<tr>
<td>Any associated notice provisions?</td>
</tr>
<tr>
<td>Notice provisions complied with?</td>
</tr>
<tr>
<td>Construction program checked?</td>
</tr>
<tr>
<td>Will delay effect Time for Completion?</td>
</tr>
<tr>
<td>Sections or Whole of Works affected?</td>
</tr>
<tr>
<td>Any concurrent delays?</td>
</tr>
<tr>
<td>Effect of concurrent delays?</td>
</tr>
<tr>
<td>Extension of time justified?</td>
</tr>
<tr>
<td>Period recommended:</td>
</tr>
</tbody>
</table>

"INSERT PROJECT NAME"

"INSERT CONTRACT NUMBER"
CA26. CONTRACTUAL CLAIMS AND DISPUTES

The Contractor is entitled to claim under the Contract at any time during the Contract for additional costs arising from certain matters beyond its control and for costs associated with compensable delays.

When a claim is received it is most important that a full and complete investigation and examination is made at the time. It can be very difficult to reconstruct events at a later date when records may be scattered or personnel have left the project.

Successful resolution of contract claims requires, as a starting point, the establishment of a proper basis of entitlement and supportable methods of quantification. Anything less must result in rejection of the claim.

Correspondence with the Contractor regarding approval or rejection of claims must be over the signature of the Project Manager as allowed in the respective delegations.

PROCEDURES

1. All claims or notifications of intended claims received will initially be referred to the Project Manager.

2. Where a claim is likely to involve considerable input which may interfere with the normal duties of site staff, specialist assistance will be sought.

3. On receipt of a claim or notification of intended claim the Project Manager will register the claim in the Claims Register and give it an identifying number.

4. The Project Manager will advise the Employer of the claim and keep him informed as to the progress of examination and the possible outcome.

5. If no immediate resolution can be anticipated, receipt of the claim will be acknowledged by a letter under signature of the Project Manager.

6. The claim will be reviewed:
   - for compliance or validity under the terms of the Contract, with attention being paid to specific requirements associated with the giving of notice, and
   - for reasonableness of the amount claimed.

7. The Project Manager will discuss the claim with the Contractor at the earliest opportunity, in order to gather more facts or information, and to discuss the results of the initial review. Often, there will be views or opinions which may not be fully understood in writing, and it is best to clarify any misunderstandings at an early stage, rather than be misled and to let a dispute arise.
8. Before proceeding to support or reject a major claim it must be referred to the Contracts Specialist, fully documented and supported by all available factual evidence.

9. After review and discussions with the Contractor a determination will be issued under the Project Manager’s signature.

10. Note that consultation with, or approval by, the Employer, may be necessary if the Conditions of Contract so provide, before a decision can be given to the Contractor.

11. If the Contractor disputes the determination, the claim will be referred to the Adjudicator for a decision.

12. Arbitration

If an Adjudicator’s decision is disputed and the matter may be referred to Arbitration by the Contractor or the Employer.

It is noted that Arbitration is a costly process for both Employer and Contractor, and every attempt must be made to settle claims before reaching this stage of a dispute.

RESPONSIBILITIES

It is the responsibility of the Project Manager to advise on the Contract provisions which allow or disallow the claim.

It is the responsibility of the site staff to assist with assessing the quantum claimed.

It is the responsibility of the Project Manager to issue the determination of the claim.

In the event of a dispute, it is the responsibility of the Adjudicator to issue a decision.

RECORDS

File XXXX.006.01 - Contractual Claims
File XXXX.006.04 - Disputes
Registers

ATTACHMENTS

Sample Claims Assessment Table of Contents.
CLAIMS ASSESSMENT

TABLE OF CONTENTS

LIST OF TABLES

LIST OF APPENDIXES

1. SUMMARY

2. INTRODUCTION
   2.1 BACKGROUND

3. CRITICAL FACTS
   3.1 THE CONTRACT
   3.2 EXTENDED DATE

4. THE CONTRACTOR'S CLAIM
   4.1 CONTRACTUAL BASIS
   4.2 COSTS CLAIMED

5. RELEVANT CONTRACTUAL PROVISIONS

6. ASSESSMENT OF CLAIM

7. CONCLUSIONS AND RECOMMENDATIONS
CA27. DAYWORKS

Dayworks are sometimes utilised for minor items of additional work.

PROCEDURES

1. When doing work by Dayworks is considered desirable, the Project Manager will prepare and issue a Dayworks Order for the work.

2. The site staff will pay close attention to work undertaken by Dayworks and record manpower, equipment and materials utilised for cross-checking the Contractor's daily records.

3. The site staff will review the Contractor's daily records and discuss and agree corrections with the Contractor. The agreed list and statement will be countersigned by the Project Manager and one copy will be returned to the Contractor and the other copy will be retained by the Project Manager for use in preparing Interim Payment Certificates.

RESPONSIBILITIES

The Project Manager is responsible for signing the Dayworks Order.

The site staff are responsible for ensuring records are submitted by the Contractor on a daily basis and signing daily records after agreement.

The Project Manager is responsible for maintaining the records of Dayworks and arranging payment to be included with each Interim Certificate.

RECORDS

Dayworks Orders
Daily Dayworks Records
Dayworks Register
File XXXX.009.06 - Dayworks
Contract Management System database

ATTACHMENTS

Sample of Dayworks Order
DAYWORKS ORDER No. ___

In accordance with and subject to the Conditions of Contract, the Contractor is hereby instructed to execute the following work by dayworks:

<table>
<thead>
<tr>
<th>Description (Manpower/materials/equipment)</th>
<th>Unit</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Payment will be made in accordance with the Contract using the following rates:

Work done under this Dayworks Order shall not be separately measured for payment under any item in the Bill of Quantities.

Project Manager            Date

Received:

Contractor’s Representative      Date
CA28. WORK-AS-EXECUTED DRAWINGS

Work-as-Executed drawings are required to provide a record of the work as actually constructed.

PROCEDURES

1. The surveyor or draftsman will keep a dedicated set of drawings on which notes of changes to the drawings will be progressively recorded. These are not WAE drawings.

2. Site staff will advise of any work not in accordance with the drawings.

3. The notes of changes will be marked in red. Examples of notes are:
   - “Site Instruction No. 272 dated 14.09.99 change foundation width to 2.5m”, with an arrow to where on the drawing it applies; or
   - “Variation No. 17 instructed paved shoulders to be 40mm BC”, with an arrow to where on the drawing it applies.

4. Site staff will regularly check that the Contractor is keeping accurate, properly marked-up work-as-executed drawings.

5. On submission of the work-as-executed drawings by the Contractor, the site staff will check that all changes have been incorporated.

6. Before issuing a Taking-Over Certificate, the Project Manager will ensure that the Contractor has submitted the work-as-executed drawings as required.

RESPONSIBILITIES

The site staff are responsible for providing information on changes to the work to the surveyor or draftsman.

The surveyor or draftsman is responsible for marking-up these changes on a master set of drawings.

The site staff are responsible for checking that all changes have been incorporated.

The Project Manager is responsible for ensuring that the Contractor has submitted the work-as-executed drawings as required.

RECORDS

Final set of work-as-executed drawings

---

4 This procedure is for when the Contractor is responsible for the WAE drawings
ATTACHMENTS

Nil.
CA29. CONTRACT COMPLETION

Certain formalities need to be followed at the completion of the Contract.

PROCEDURES

1. TAKING OVER

When the Project Manager is satisfied that the stage of substantial completion is reached, he will prepare and issue a certificate of Completion of the Works. The Employer will take over the site and the Works within seven days of the Project Manager’s issuing of the certificate.

2. LIQUIDATED DAMAGES

Clause 49.1 of the Conditions of Contracts, as supplemented by the Contract Data, stipulates the amount(s) of Liquidated Damages due for late completion of Works or Sections.

It is not within the Project Manager's authority as to whether Liquidated Damages are applied. The Project Manager may recommend a course of action for the Employer to adopt, but in this the Project Manager must be scrupulously fair to both Employer and Contractor.

The Project Manager will review the circumstances and determine the amounts of Liquidated Damages due under the Contract. In this he will be assisted by site staff who must assess any extenuating circumstances involving late completion of the Work.

The Project Manager will issue the appropriate letter to the Employer based on the date of issue of the certificate of Completion of the Works and any approved Extension of Time.

3. DEFECTS LIABILITY CERTIFICATE

When all obligations under the Contract have been completed, including those required to be performed during the Defects Liability Period, the Project Manager is required to issue a Defects Liability Certificate within 56 days of receipt of a detailed account of the total amount that the Contractor considers payable under the Contract.

Between the date of issue of the certificate of Completion of the Works and the issue of the Defects Liability Certificate, the Project Manager will ensure all outstanding matters of the Contract have been completed. These include:

- finalisation of all repairs, rectification of defects, omissions etc. as instructed by the Project Manager;
- clean up and removal of all site facilities erected by the Contractor including restoration and rehabilitation of all areas as required under the Contract;
• hand back of all facilities, camp accommodation and other camp amenities including repairs of damages and refurbishing as required under the Contract; and

• hand over of all "as-built" drawings, manuals, maintenance and operation instructions, etc as required under the Contract.

4. RELEASE OF SECURITIES

Clause 52.1 of the Conditions of Contract requires that the performance security is to remain valid until 28 days from the date of issue of the Certificate of Completion in the case of a bank guarantee, and until one year after the from the date of issue of the Completion Certificate in the case of a Performance Bond.

The security is held by the Employer and it is up to him to effect the release however the Project Manager, as part of the Contract wind-up procedures, will formally remind the Employer of this requirement when the Certificate of Completion is issued.

RESPONSIBILITIES

The site staff are responsible for coordinating the final inspection and acceptance of the areas of work under their responsibility to ensure all work complies with the Contract.

The Project Manager is responsible for preparing and issuing the certificate of Completion of the Works, information for Liquidated Damages assessment, Defects Liability Certificate and Final Certificate.

RECORDS

Certificate of Completion of the Works
Defects Liability Certificate
File XXXX.005.01 - General Administration
File XXXX.009.03 - Interim Payments

ATTACHMENTS

Certificate of Completion of the Works
Defects Liability Certificate
To Contractor, copy to Employer.

“INSERT PROJECT NAME”

“INSERT CONTRACT NUMBER”

BETWEEN

_________________________ (Employer)

AND

_________________________ Contractor)

FOR: _____________________________________________

CERTIFICATE OF COMPLETION OF THE WORKS

Pursuant to Clause 55.1 of the Conditions of Contract, this is to certify that have been substantially completed in accordance with the Contract on the ________________ of ________________ 20___.

The following outstanding work and/or defects is/are to be completed and/or rectified with due expedition during the Defects Liability Period which shall be from the ________________ 20___ to the ________________ of ________________ 20___.

(List any known outstanding work and defects)

• ______________________

• ______________________

• ______________________

• ______________________

Other outstanding work and/or defects as instructed by the Project Manager during the Defects Liability Period are to be completed or rectified with due expedition after receiving notification.

___________________________________________

Project Manager
To Contractor, copy to Employer.

“INSERT PROJECT NAME”

“INSERT CONTRACT NUMBER”

BETWEEN

_________________________ (Employer)

AND

_________________________ Contractor)

FOR: _____________________________________________

DEFECTS LIABILITY CERTIFICATE

This is to certify that, as on the __________ day of __________ 20___, all Work has been fully and satisfactorily executed and that the Contractor has fulfilled all its obligations under the Contract.

This Defects Liability Certificate is issued in accordance with Clause 57.1 of the Conditions of Contract.

_________________________

Project Manager
CA30. COMPLETION REPORT

It is necessary to produce, within a set time frame of the project having been completed, a report covering details of the execution of the project. This will act as a record and learning tool by highlighting lessons learned on the Contract.

PROCEDURES

1. The Project Manager will allocate responsibility for various sections of the report.

2. Individuals will maintain informal files/folders on the sections allocated to them such that all the information is available when needed.

3. One month prior to the scheduled completion of the various features, individuals will prepare a draft of the respective sections.

4. The Project Manager will edit all the drafts to ensure common phraseology.

5. Within one month of the final (if more than one) Completion Certificate being issued, the Project Manager will submit a draft report to the Employer.

6. Within one month following review by the Employer and consideration of any comments, the Project Manager will submit the final printed report.

RESPONSIBILITIES

Individuals are responsible for drafting the various sections of the report as allocated by the Project Manager.

The Project Manager is responsible for editing all drafts, compiling the complete draft report and submitting it to the Employer.

The Project Manager is responsible for finalising the report and submitting it to the Employer.

RECORDS

Printed Completion Report
File XXXX.007.01 - Reports to Employer

ATTACHMENTS

Sample Report Table of Contents
EXECUTIVE SUMMARY

1. INTRODUCTION

2. PROJECT
   2.1. DESCRIPTION OF WORKS
   2.2. OPERATING PLAN
   2.3. CONTRACT COSTS

3. DETAILS OF CONTRACT

4. ACCESS TO SITE

5. RAINFALL AND RESERVOIR LEVEL

6. SAFETY

7. PROGRAM AND PROGRESS
   7.1. SPECIFIED CONSTRUCTION PERIODS
   7.2. CONTRACT PROGRAM
   7.3. CONSTRUCTION PROGRAMS
   7.4. PROGRESS

8. PROJECT MANAGER'S ESTABLISHMENT
   8.1. STAFF AND ORGANISATION
   8.2. BUILDINGS AND FACILITIES
   8.3. SURVEY
   8.4. QUALITY CONTROL
   8.5. TRANSPORT

9. CONTRACTOR'S ESTABLISHMENT
   9.1. STAFF AND LABOUR
   9.2. BUILDINGS AND FACILITIES
   9.3. EQUIPMENT

10. QUALITY ASSURANCE
    10.1. CIVIL WORKS
    10.2. PLANT WORKS

11. ASSESSMENT OF CIVIL WORKS

12. PROBLEMS, SOLUTIONS AND RECOMMENDATIONS
CA31. ASSESSMENT OF CONTRACTOR’S PERFORMANCE

To assist evaluation of future tenders an assessment is to be made of the Contractor’s performance on the Contract, either during or at the end of the Contract period.

PROCEDURES

1. The Project Manager will compile a report on the Contractor's performance on the project.

2. Prior to submission of the report to the Client, the assessment must be discussed with the Contractor. Any criticisms of the Contractor's performance must be explained and the Contractor given an opportunity to respond. Minutes of the meeting with the Contractor are to be taken and attached to the report.

RESPONSIBILITIES

The Project Manager is responsible for carrying out the assessment.

RECORDS

File XXXXX.005.01 – General Administration

ATTACHMENTS

Sample Performance Report.
**CONTRACTOR PERFORMANCE REPORT**

**General information**
Contractor name: ____________________________  Contract No. ____________________________

Contract description: ____________________________

Original Contract period: ____________  Date of commencement: ____________

Original date for completion: ____________  EOTs approved: ____________

Actual date of completion: ____________

Original Contract Price: ____________  Final Contract Price: ____________

**Contractor’s performance**

<table>
<thead>
<tr>
<th>Category</th>
<th>Unsatisfactory</th>
<th>Acceptable</th>
<th>Good</th>
<th>Superior</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time management</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standard of work</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality systems</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality of site personnel</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Management of subcontractors</td>
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<tr>
<td>Contract administration</td>
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<tr>
<td>Health and safety management</td>
<td></td>
<td></td>
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<td>Industrial relations management</td>
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<td>Workforce or skills development</td>
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<tr>
<td>Co-operative relationships</td>
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<tr>
<td>Other</td>
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</tr>
</tbody>
</table>

**Overall performance**

- Not suitable
- Suitable

*if “not suitable”, detailed reasons must be given*

**Suitability for further work**

- Not suitable
- Suitable

The report has been forwarded to Contractor

- Yes
- No

Recommended for further work

- Yes
- No

If the recommendation is no, the unsatisfactory performance aspects have been discussed with:

Name of Contractor’s representative ____________________________

Telephone ____________  Date of discussion ____________

Minutes of meeting and Contractor’s response attached

- Yes
- No

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**Project Manager**

__________________________  Date

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Government of Papua New Guinea
Procedure CA31 Assessment of Contractor’s Performance
Edition 1, Revision 1

Page CA31 - 2  Issue date: August 2004
CA32. CONTRACT TERMINATION

If there has been a significant breach of contract or one or both parties cannot fulfil their obligation, it may be necessary to terminate a contract before it reaches its natural conclusion. Contracts can only be terminated by the authority that executed the contract. For major contracts this will be the relevant Chairman of the Supply and Tender Board or the Head of State.

Termination of a contract is very serious event. Extreme care must be taken by the Project Manager to ensure that all available measures have been explored, prior to termination proceedings.

PROCEDURE

The following rules apply in relation to contract terminations:

1. Project Manager is to establish the nature of the significant breach. This will require extensive documented evidence.

2. Project Manager is to discuss the breach with the contractor in an effort to resolve the matter.

3. Employer to seek written legal opinion from the State Solicitor. This must be sought prior to terminating a contract.

4. Employer to refer the matter to the contracting authority. Prior to the Chairman of a Supply and Tender Board terminating a contract, the Supply and Tender Board must meet and decide to terminate the contract.

5. Where the Head of State is required to terminate the contract, he or she may only do so on written advice from the National Executive Council, supported by written advice from the relevant Supply and Tender Board and State Solicitor.

6. The contract authority terminating the contract must immediately write to the Department of Finance, Public Accounts Division, APC Secretariat to inform them of the termination.

RESPONSIBILITIES

Project Manager is responsible to ensure all measures have been explored before considering termination. Project Manager must collect evidence and keep the Employer (Head of Agency) fully informed of proceedings.

Employer is to seek legal advice from State Solicitor. Employer must refer termination proceedings to the relevant contracting authority.

Contracting authority is responsible for the termination of the contract, based on technical and legal advice. Contracting authority must also advice the APC Secretariat (DoF) that the contract has been terminated.
RECORDS

File XXXXX.005.01 – General Administration

ATTACHMENTS

Nil