DPC ENGINEERING PTY LTD

Controlled Document No: 1

Revision 02

QUALITY MANUAL

AS/NSZ ISO 9001:2016

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CONTENTS

Introduction 4
Company Profile 4
General 4
Process Approach 4
Section 1: Scope 6
Section 1.1 General 6
Section 2: Quality Management System 7
Section 2.1 General Requirements 7
Section 2.2 Documentation Requirements 7
Section 2.2.1 General 7
Section 2.2.2 Quality Manual 7
Section 2.2.3 Control of documents and data 8
Section 2.2.4 Control of Records 8
Section 3: Management Responsibility 9
Section 3.1 Management Commitment 9
Section 3.2 Customer Focus 9
Section 3.3 Quality Policy 9
Section 3.4 Quality Objectives and Planning 10
Section 3.4.1 Quality Objectives 10
Section 3.4.2 Quality Management System Planning 11
Section 3.5 Responsibility, Authority and communication 11
Section 3.5.1 Responsibility and Authority 11
Section 3.5.2 Management Representative 11
Section 3.5.3 Internal communication 12
Section 3.6 Management Review 12
Section 3.6.1 General 12
Section 3.6.2 Review Input 12
Section 3.6.3 Review Output 12
Section 4: Resource Management 13
Section 4.1 Provision of Resources 13
Section 4.2 Human Resources 13
Section 4.2.1 Assignment of Personnel 13

Section 4.2.2 Competence, Training and Awareness 13
Section 4.3 Infrastructure 14
Section 4.4 Work Environment 14
Section 4.5 Cost Management 14
Section 5: Project Realisation 15
Section 5.1 Planning of Project 15
Section 5.2 Client Related Processes 15
Section 5.2.1 Client Communication 15
Section 5.2.2 Determination of requirements related to the project or services 15
Section 5.2.3 Review of requirements related to the project or services 16
Section 5.3 Design and Development 16
Section 5.3.1 Design and Development Planning 16
Section 5.3.2 Design and Development Inputs 16
Section 5.3.3 Design and Development outputs 17
Section 5.3.4 Design and Development Review 17
Section 5.3.5 Design and Development Verification 17
Section 5.3.6 Design and Development Validation 17
Section 5.3.7 Design and Development changes 17
Section 6: Measurement, Analysis and Improvement 18
Section 6.1 General 18
Section 6.2 Measurement and Monitoring 18
Section 6.2.1 Client Satisfaction 18
Section 6.2.2 Internal Audits 18
Section 6.2.3 External Audit 19
Section 6.2.4 Measurement and Monitoring of Processes 20
Section 6.2.5 Measurement and Monitoring of deliverables 20
Section 6.3 Control of Nonconformity 20
Section 6.4 Analysis of Data 21
Section 6.5 Improvement 21
Section 6.5.1 Continual Improvement 21
Section 6.5.2 Corrective Action 21
Section 6.5.3 Preventive Action 22
Related documents 23

FM10 – Operation Procedure.....23
FM11 – Organisation Chart.....23
FM15 – CAD Drawing Procedure.....23
FM12 – Company Quality Policy Statement.....23
FM20 – Meeting Agenda/Minutes.....23
FM21 – RFI Form.....23
FM25 – Site Visit Records.....23
FM30 – Induction Register.....23
FM40 – Internal Auditing.....23
FM41 – Corrective Action Request.....23
FM50 – Weekly Staff Contribution.....23
FM51 – Project Resource Tracker.....23
FM60 – DPC CAD Drawing Template.....23
FM61 – DPC Drawing Register.....23

Note: yellow highlight indicates changes made in this revision

INTRODUCTION

Company Profile

DPC Engineering, founded in 2008, is a relatively new and emerging company within the engineering design and construction industry. With a focus on modern techniques and values, we aim to bring a fresh and innovative perspective to all projects. DPC Engineering aims to be a leader within the Civil Engineering design space, we aim to provide our clients with the highest level of quality for all aspects of our work. As a company; we have made a conscious and aware decision to focus on the safety of our designs and it is this decision that sets us apart for the competition. DPC Engineering also strives to improve the industry by sharing our passion and knowledge with regards to safety in design with our subcontractors and other industry partners.

Although DPC Engineering has a short history as a company, we are a highly experienced and diverse group of people with a wealth of knowledge in the engineering design and construction field. We aim to utilise all aspects of our teams past experience to provide innovative and appropriate solutions to meet our clients need. Our history may be short; but it is diverse and is filled with many successful high profile projects. DPC Engineering draws on the knowledge of these previous projects to implement innovative and efficient solutions to meet the client's needs. This is all done while meeting or exceeding any relevant design standards or procedures.

General

DPC Engineering is committed to the systematic management of quality by all staff within the organisation across our full range of technical and administrative activities. We have an effective Quality Management System which meets all the requirements of the quality assurance standard ISO9001. The company's services, including design, development, implementation and deliverables are under the umbrella of this system.

This Quality Manual forms part of the quality system operating within DPC engineering Pty Ltd, in accordance with the AS/NSZ ISO9001:

AS/NSZ ISO9001:2016

"Quality Management Systems – Requirements"

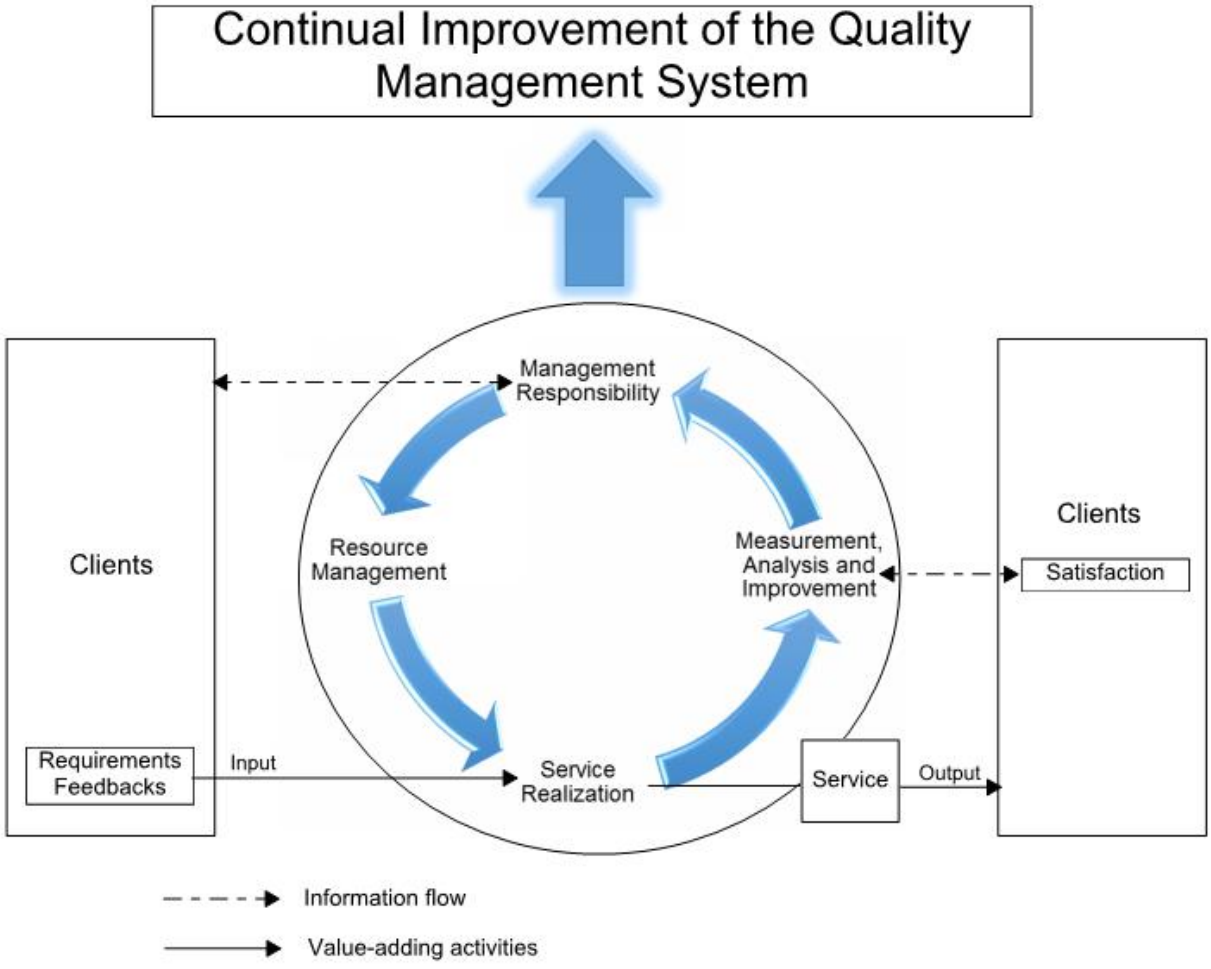
Process Approach

The process model shown over page is similar to the one as specified in the above-mentioned standard to demonstrate the concept of the Quality Management System. The

model reflects the integration and interaction of the four major headings of section 3, section 4, section 5 and section 6 graphically.

The model depicts how management:

- Defines requirements under Management Responsibilities (section 3),
- Determines and applies necessary resources as set out in Resource Management (section 4)
- Establishes and implements processes under Process Management (section 5)
- Measures results and analyses them in order to improve on operations through Measurement, Analysis and Improvement (section 6)
- The results of operations are taken back to the Management Review meeting as input for the next cycle



SECTION 1: SCOPE

Section 1.1 General

The Standard, on which this manual is based, specifies the requirements for a quality system where DPC engineering is required to:

- Demonstrate our ability to be able to provide consistently quality products that meets the needs of client and relevant or applicable statutory and regulatory requirements,
- Ensure client's satisfaction from implementing effective processes of the Quality System
- Ensure continual improvement of this system

This is achieved through:

- Implementation of internal and external auditing procedures for continual improvement of the Quality System,
- Providing assurance of conformity to client requirements via appropriate monitoring and measuring processes
- Providing assurance that applicable statutory and regulatory requirements are met at all times via appropriate documentation

DPC engineering monitors client satisfaction through the evaluation of feedback information relating to how well DPC engineering performs against these requirements.

The core activity of DPC engineering is to provide professional engineering consulting services over a wide range of disciplines, this typically includes:

- Submission of the tender against the client's project requirement
- Conceptual and detailed design
- Collaborate with other consultants to achieve principle project requirement
- Conform with relevant Standards and regulations
- Ensure safety in design

We also:

- Welcome feedback from the client on the quality of our services against their requirements, and implement this feedback into future works
- Immediately address any non-conformances in accordance with documented procedures

Our quality controlled Operation Procedures set out how we do this in accordance with ISO9001:2016

Reference: FM10_Operation Procedure

SECTION 2: QUALITY MANAGEMENT SYSTEM

Section 2.1 General Requirements

DPC Engineering has established and documented a Quality Management System. DPC engineering is committed to maintaining and continually improving this system.

As part of the system, DPC Engineering has formulated a Quality Policy, which is coupled with specific objectives as set out in documented procedures. It is the responsibility of the Manager to ensure that the policy and objectives are made available, and known; to all staff and that these are deployed throughout the organisations through performance measures and documented procedures.

DPC Engineering has:

- Identified and determined the necessary procedures and processes required for the Quality Management System and their applications throughout the company
- Determined the sequence and relationship between these processes
- Determine methods required to ensure the effectiveness of control or operation of these processes through established criteria
- Ensured the availability of any required resources or information are necessary to support the operation in order to achieve intended results with continual improvement
- Established procedure to ensure these processes are proper monitored, measured and reviewed. The procedure is also used to implement necessary action to achieve intended results with continual improvement of any processes

DPC Engineering manages these processes in accordance with the requirements of the AS/NSZ ISO9001 standard.

The nature and extent of the documented system has been tailored to suit DPC Engineering's operations and complexity.

Section 2.2 Documentation Requirements

Section 2.2.1 General

The Quality Management System contains the following documentation:

- A quality policy and statement of quality objectives (FM12)
- A Quality Manual (FM01)
- Documented Operation Procedures (FM11)
- Other controlled documents (see **related documents**)

Section 2.2.2 Quality Manual

This Quality Manual contains:

- The scope of the Management system, refer to section 1: scope
- Relevant procedures and reference documents associated with Quality System
- A description of the interactions between the processes of the Management system

Section 2.2.3 Control of documents and data

DPC Engineering has established procedures for monitoring and controlling new and revised documents to ensue effectiveness of implementation of our Quality Management system. Both external and internal applicable documents shall be included, such as Australian Standards or Acts of Parliament shall be included.

The procedures ensure that documents:

- Are approved for suitability prior to issue
- Are under regular reviewed and revised as required
- Clearly show unique document number, current versions or revision
- Are made available at all locations where activities essential to the control of DPC Engineering's processes are performed
- Are legible, readily identifiable and retrievable
- Obsoleted documents are removed immediately from all available locations and prevent from their unwanted use

Documentation defined as Quality Records are controlled as set out in section 2.2.4: Control of Records.

Documentation may be in any type of forms, such as computer files or the like.

Section 2.2.4 Control of Records

The evidence of conformance to the requirement is provided by the established records. It also ensures the control of effective operations of the Quality Management System.

DPC Engineering has established procedures for identification, storage, retrieval, control, monitor and disposal of Records.

SECTION 3: MANAGEMENT RESPONSIBILITY

Section 3.1 Management Commitment

DPC Engineering Senior management has been actively involved in contributing and implementing the Quality Management System. They are ensuring a client focused managing processes, and providing the vision and strategic direction for the continuous improvement of our Quality Management System.

Senior management also demonstrates its commitment to meeting client requirements for their services. This includes, but I not limited to:

- Creating an environment suitable to fulfilment of client, regulatory and legal requirements
- Establishing Quality Policies and Quality Objectives
- Performing quarterly management reviews
- Ensuring continuous improvement through review processes
- Ensuring and arranging any necessary resources

Section 3.2 Customer Focus

Senior Management identify client's needs and requirements and specify them in the form of orders, specifications and/or drawings, with the aim of achieving client confidence and enhancing client satisfaction in the services provided.

DPC Engineering ensure the client's orders are understood and fully met.

Section 3.3 Quality Policy

Senior management have established DPC's Quality Policy and ensure that it:

- Is suitable for the requirements of DPC Engineering
- Provides a framework for establishing quality objectives
- Includes commitment to meeting client requirements and ensures continual improvement for all staff of DPC Engineering
- Is communicated, understood and effectively applied within DPC Engineering
- Is reviewed and improved on a regular basis
- Is available to client or other relevant parties, as appropriate

Quality Policy Statement

DPC Engineering Pty Ltd has made a commitment to pursue quality excellence in all aspects of our business and has established a Quality System for the engineering design and all other related activities to achieve the following objectives:

- To meet our client's needs and satisfaction by providing consistently quality products and services
- To give our client a high level of confidence that the targeted quality has been achieved and will be continuous improved in our core products or services provided
- To ensure all our employee constantly aims to improve the overall quality of our services

All the processes and any other supportive activities are encompassed by the Quality System which ensures the policies and processes developed are reviewed and sustained under the system.

It is the responsibility of management to maintain and implement the quality policy and improve our quality of services. All DPC's employee share the responsibility to ensure the Quality system has been correctly implemented. Any works produced under this system shall fit for its purposes and comply with relevant specification established.

In the event of non-conformity or deficiencies of quality occurring, they have to be addressed and corrected immediately disregards the type of problem. The management shall review the event and follow up with actions to ensure problem will not recur.

The Quality System is in accordance with the AS/NZS ISO9001:2016. This system has been reviewed and approved for its intent and implementation by the Project Manager.

A copy of this Quality Policy is made available at company server and it is the responsibility of management to ensure that it is understood, implemented and maintained at all levels in DPC Engineering. All new staff will be undertaken DPC Engineering Quality Management system induction and documented under **Induction Register (FM30).**

Related Document: FM12_Company Quality Policy Statement

Section 3.4 Quality Objectives and Planning

Section 3.4.1 Quality Objectives

DPC Engineering has established written quality objectives in consistent with the Quality Policy and the commitment to the continuous improvement. They are measurable and shall meet the requirements of related processes and products or services we provide.

Section 3.4.2 Quality Management System Planning

Senior management ensure that the resources needed to achieve the Quality Objectives that are identified and prepared.

DPC Engineering have developed a process for ensuring that the services conform with the quality system requirements from its inception at the contract acceptance stage, through to delivery of services.

Consideration has been given to the following issues:

- Process of the Quality Management System, where specific procedures and orders apply
- Allocation of resources
- Identification of responsibilities and authorities as needed
- Identification of the requirement of resources and skills
- Continual improvement of the Quality Management System

Proper planning also ensures any changes will be controlled prior implementation and the integrity of the Quality Management System shall not be jeopardised during these changes.

Section 3.5 Responsibility, Authority and communication

Section 3.5.1 Responsibility and Authority

Roles, Responsibilities and Authorities have been defined, as shown in the organization chart, and communicated to responsible staff through position descriptions and procedures to facilitate effective management.

Procedures and Position descriptions define the responsibility and authorities of staff, who manage, perform and verify, working affecting quality.

Section 3.5.2 Management Representative

The DPC Manager has appointed the Assistant Project Manager as the Management Representative and, irrespective of his other responsibilities, is responsible for:

- Ensuring that the quality system established and implemented is maintained in accordance with the AS/NSZ ISO9001
- Reporting on the performance of the quality system to DPC's management for reviewing the performance of the system, identify the needs for improvement and ensure continual improvement of the Quality system
- Promoting and maintaining awareness of client needs and requirements
- Liaison, where needed, with clients on matters relating to DPC's quality system

Section 3.5.3 Internal communication

DPC has established procedures to ensure effective communication is maintained between the different levels relating to the Quality Management System.

The organizational chart is depicted and shown the respective positions and areas of responsibility.

Related Document: FM11_Organizational Chart

Section 3.6 Management Review

Section 3.6.1 General

DPC Engineering undertakes a quarterly management review to ensure the quality requirements as stated in our Quality Policy and Objectives have been achieved; and the needs of our clients have been satisfied, through the adequacy and effectiveness of our Quality System.

Section 3.6.2 Review Input

The Management Review meeting agenda includes current performance and improvement opportunities and perform a comparison and evaluation of the following:

- Audit reports, for both Internal Audits and External Audit which performed by an external Certified Authority
- Client complaints and expressions of satisfaction
- Performance of the documented procedures and processes
- Products or services conformity
- Status of corrective, preventive and improvement actions from previous management reviews
- Status of follow up or improvement actions agreed from previous management reviews
- Potential changes that could affect the effectiveness of Quality Management System
- Recommendations of other improvements

Section 3.6.3 Review Output

The outputs of the management review shall ensure that:

- The Quality Management System and its processes has a continuous improvement
- DPC's products or services has a continual improvement in related to the client's needs and requirements
- Identify any resource needs for future development

Records of these meetings are maintained in the form of minutes of each meeting and are kept in DPC Engineering's server.

SECTION 4: RESOURCE MANAGEMENT

Section 4.1 Provision of Resources

DPC Engineering has determined the resources necessary and will provide these in a timely manner as needed:

- To implement, improve and maintain the processes of the Quality Management System, and ensure continuous improvement to its effectiveness
- To address client satisfaction by meeting their needs or requirements

Section 4.2 Human Resources

Section 4.2.1 Assignment of Personnel

DPC Engineering ensures the competence of staff based on their applicable education, training, skills and relative experience for their assigned responsibilities which defined in the Quality Management System.

Section 4.2.2 Competence, Training and Awareness

DPC Engineering have:

- Determined the necessary competence needed for personnel performing activities which will be affecting the conformity to project requirements
- Provided training or taken other actions to achieve the necessary competence if applicable
- Evaluated the effectiveness of implementation
- Ensured that all staff are aware of how their activities contribute on achieving company's Quality Objectives and complying with Quality Policy
- Maintained appropriate personal records of education, experience, training and qualifications

Training needs may also be identified through:

- Performance evaluation
- Introduction of new services
- Procedural changes to processes
- Technologies update
- Client complaints
- Legislative requirements
- Client surveys

Records indicate qualification, skill levels, training needs and functions for which employees are trained.

Section 4.3 Infrastructure

DPC Engineering has identified, provided and maintained the facilities needed to complete services requirement and achieve the conformity. This including:

- Workspace and any other related facilities
- Process equipment, hardware and software
- Any supporting services, such as transportation, telecommunication or information system

Section 4.4 Work Environment

DPC Engineering has ensured that a comfortable and safe workspace is maintained to all personnel, this includes control of noises, temperature and humidity, sufficient lighting etc.

Section 4.5 Cost Management

For each project, DPC Engineering has adopted a weekly timesheet system to monitor and manage costs of projects. All project team members are required to record their hours of spending and write a short description of works they have done. The timesheet will be collated by Assistant Project Manager and produce project resource management report for review and planning.

Related Document: FM51_Project Resource Tacker

FM50_Weekly Staff Contribution

SECTION 5: PROJECT REALISATION

Section 5.1 Planning of Project

Planning of project is that sequence of processes and sub-processes required to achieve required services to the clients. Planning of these processes shall be consistent with the other requirements of DPC's Quality Management System and will be documented.

DPC Engineering has determined the following criteria in planning the processes:

- Quality objectives for the products or services
- The needs to establish processes and documentation, as well as required resources specific to the project
- Any requirements of project such as verification, validation, inspection or tests
- Criteria for project acceptance
- The records that are necessary to provide evidence of conformity of the processes and project deliverables

The outputs of this planning shall include quality plan, processes and procedures which must be documented.

Section 5.2 Client Related Processes

Section 5.2.1 Client Communication

DPC Engineering has identified and implemented arrangements for communicating with clients in relation to:

- Information relating to our services
- Enquiries, contracts, or handling of orders, including any amendments
- Client feedback, including client compliments or complaints

Section 5.2.2 Determination of requirements related to the project or services

DPC Engineering has established processes for identifying client requirement. These processes include:

- Project or service requirements specified by clients, including the requirement for availability, delivery and post delivery services
- Requirements not specified by clients, but necessary for intended or specified purposes
- Statutory and regulatory requirements applicable to the services
- Any other requirements shall be considered by DPC Engineering

Section 5.2.3 Review of requirements related to the project or services

A review is conducted before entering an arrangement for the supply of any services. The review covers the submission of a tender, acceptance of this tender by the client, and any subsequent changes to the client's requirement. It ensures that:

- Requirements of services are clearly defined
- The requirements are confirmed before acceptance of a contract or a commitment, in the case of no written statement of requirement is provided
- Resolve any contract or order differences that differ from those previously stated
- DPC Engineering has the ability and capacity to meet the stated requirements

The results of the review and any follow up actions are recorded as per section 2.2.4 Control of Record.

Relevant documentation is amended and personnel are made aware the changed requirements when the requirements for the contracts or orders have changed by the clients.

Section 5.3 Design and Development

A design and development process is established, implemented and maintained by DPC Engineering which includes the following steps as listed in the subsequent sub-sections.

Section 5.3.1 Design and Development Planning

The initiation and planning of project design may depend on the client's requirement. Project team shall determine the stages and controls for the design and development. This includes:

- The nature, duration, required process stages of the design and development activities
- The verification and validation activities for the required design and development
- The resources needed for the design and development, either internal or external
- Involvement of clients or users in the design and development process
- Relevant documentation to be provided to demonstrate that the requirements of design and development have been met

Section 5.3.2 Design and Development Inputs

The requirements for the specific services under design and development shall be determined as inputs and documented for records. The inputs shall include functional and performance requirements, statutory and regulatory requirements, relevant standards or codes of practice, and potential consequences of failure.

Section 5.3.3 Design and Development outputs

The design and development outputs shall meet the input requirements as defined in the inputs. It shall also contain or reference service acceptance criteria. The characteristics and intended purposes of the services shall be clearly specified. The outputs will be documented and controlled.

Section 5.3.4 Design and Development Review

Upon completion of design and development, a systematic review will be performed to evaluate the results of design and development activities to determine if they have fulfilled the requirements. Any problems during the process will be identified and necessary actions will be taken in place. The review will be records in the form of minutes and documented for records.

Section 5.3.5 Design and Development Verification

The verification of design and development outputs shall be performed to ensure they meet the input requirements. The verification of results and any follow up actions shall be retained and documented for records.

Section 5.3.6 Design and Development Validation

Design and development validation shall be performed to ensure the requirements of the specified application or intended use have been met. The validation shall also be conducted prior to the delivery of the services required. Results of validation and any follow up actions shall be retained and documented for records.

Section 5.3.7 Design and Development changes

Any design and development change made during or after the process shall be identified, reviewed and controlled to ensure that there is no adverse impact on meeting requirements of the project or service. All changes, including the review results, the authorization of the changes and necessary control actions shall be retained and documented.

SECTION 6: MEASUREMENT, ANALYSIS AND IMPROVEMENT

Section 6.1 General

DPC Engineering has defined and implemented measurement, monitoring, analysis and improvement processes needed to:

- Ensure services conform to the specified requirements
- Ensure comply with the Quality Management System
- Achieve continuous improvement of the Quality Management System

This needs to be determined by its needs, uses, extent of uses and applicable methods.

Section 6.2 Measurement and Monitoring

Section 6.2.1 Client Satisfaction

DPC Engineering has established a process for monitoring information and data on Client satisfaction and or complaint. The methods or measures to obtain Client feedback information and data, and frequency of reviews are defined in Procedures. The process demonstrates the Client's satisfaction in the conforming deliverables provided by DPC.

DPC Engineering has applied suitable measurement to ensure continuous internal improvement; and undertaken regular evaluation of effectiveness of implemented measures.

Section 6.2.2 Internal Audits

DPC Engineering has established a process for ensuring internal audits of the Quality Management system and related processes are performed.

The purpose of internal audits is to determine whether:

- The Quality Management system established by DPC conforms to the requirements of the AS/NZS ISO9001, and company objectives
- The effectiveness of implementation of the Quality Management system throughout all levels at DPC

Appropriately trained auditors shall conduct audits of the documented quality system at regular intervals. Auditors shall be impartial of the area being audited, and may not audit their own work. The audits are planned using a schedule to ensure that the entire Quality Management system is audited at least once every year.

DPC Engineering's internal audit process is based on:

- The importance of the activities
- areas or contents to be audited

- Any previous audit results and follow up actions

The internal audit process includes, but not be limited to:

- Planning the specific areas to be audited with its associated activities
- Assigning certified personnel able to remain objective and impartial of those responsible for or performing the work being audited. Auditors do not audit their own works
- Assuring that a consistent basis for conducting audits is defined and established

The results of the internal audit are kept by DPC Engineering which includes, not be limited to:

- Contents, areas and processes audited
- Nonconformities or deficiencies identified
- Status of follow up actions made from previous audit results, such as corrective actions or specific service audits
- Opportunities of any improvements

The personnel responsible for the area being audited is encouraged to take corrective action immediately on the non-conformance found during the audits. Corrective action is reported, in writing, to the appropriate person who is responsible to take corrective action on the non-conformance found by the audit.

Follow up activities are conducted to ensure that the action taken is effective.

The audit reports and corrective action requests issued are retained as specified, together with written confirmation of corrective action taken to remedy the deficiencies found during the audit.

Related Document: FM40_Internal Auditing.

Section 6.2.3 External Audit

To ensure our Quality Management system is well recognised by the industry and the client, DPC Engineering has also undertaken External Audit through an external certification authority. The External Audit will be held 3 months after the Internal Audit has finished. The External Certified Auditor will be called in and perform the audit in two stages:

During the first stage, the Auditor will check our documentation of Quality Management System to make sure it meets the requirement of relevant standards; and identify if there is any gaps or non-conformance that need to be resolved. Toward the end of stage 1, an evaluation report will be issued and indicates if it is ready to proceed the second stage audit.

In stage 2, the auditor will focus on evaluating the implementation and effectiveness of our Quality Management system. The Auditor will conduct interviews to relevant personnel, examine records of past projects, look for the evidence that a continuous improvement, management review, staff awareness and internal auditing have been taken place as per our Quality Management system documentation. Any gaps or non-conformance will be identified and reported at the end of stage 2 audit. A recommendation will also be made to confirm if we have passed our certification and a plan for next audits will be arranged.

Section 6.2.4 Measurement and Monitoring of Processes

DPC Engineering has established adequate methods for monitoring and measuring the Quality Management System processes. These methods are to ensure each process has the ability to continuously achieve the planned outcomes. In the case of planned results are not achieved, corrective action is taking into place for correction and ensure the conformity to the requirements of the client. The measurement results may also be used as an indicator for potential improvement.

Section 6.2.5 Measurement and Monitoring of deliverables

DPC Engineering monitors and measures the key criteria of the project to verify that specified requirements have been met. This is undertaken at appropriate stages of the project.

The deliverables of the project shall not proceed to the client if the planned arrangements, as set out in section 5.1, planning of project, have been met, unless otherwise approved by the client.

Section 6.3 Control of Nonconformity

DPC Engineering ensures that deliverables, which does not conform to specified requirements, is identified and controlled to prevent unplanned use or delivery. Relevant procedures define the related responsibility and authorities for the controls of non-conformities prior delivery.

Non-conformances are identified, recorded and resolved in accordance with established procedures

DPC deals with non-conforming services in one of the following ways:

- By taking immediate action to eliminate the non-conformity
- DPC does not accept non-conforming services under concession
- By taking action to preclude its original use or application
- If nonconformity was found after the delivery of products or services, actions will be taken by DPC which are appropriate to the effects of the nonconformity

Verification will be determined and implemented if necessary correction or rework will be required.

Section 6.4 Analysis of Data

The suitability and effectiveness of our Quality Management System is determined through collecting and analysing relevant data and to identify any improvement can be made for the future. This includes data generated by measuring and monitoring activities and from other sources, including internal audits, corrective and preventive action and nonconforming activities.

DPC Engineering analyses applicable data to provide information on:

- Client complaints and satisfaction
- Conformity to client needs and requirements
- Characteristics of the processes or services provided, including possibilities for preventive actions,

Section 6.5 Improvement

Section 6.5.1 Continual Improvement

DPC Engineering has implemented procedures for the planning and management of the necessary processes for contributing on continual improvement of the Quality Management System.

DPC Engineering facilitates the continuous improvement of the Quality Management system using:

- The Quality Policy
- Company objectives
- External and Internal Audit results
- Analysis of reviewed data
- Corrective and preventive actions
- Quarterly Management reviews

Section 6.5.2 Corrective Action

DPC Engineering takes timely correction action to eliminate the causes of non-conformities in order to prevent recurrence.

The level of this reporting depends on the judgement of senior management in regards to the magnitude and severity or impacts of the problem or potential problem.

DPC Engineering formally records and deals with client complaints. This assists DPC in both rectifying the client complaint and analysing defects in the system which caused the client complaint.

The procedure for corrective action requests includes requirements for:

- Identification of non-conformities
- Determination of the reasons for non-conformities
- Evaluation the needs for the corrective action, and ensure that the non-conformities will not recur
- Implementation of corrective actions determined
- Recording the results of any actions taken
- Reviewing the effectiveness of action taken to verify that its implementation has in fact solved the problem

Related Document: FM41_Corrective Action Request

Section 6.5.3 Preventive Action

DPC Engineering has established procedures for preventive action to eliminate the causes of potential non-conformities and preventing them. It uses the same system as corrective action.

The procedure for preventive action requests include requirements for:

- Identification of potential non-conformities
- Determination the cause of the potential non-conformities
- Implementation of the preventive action needed
- Recording the results of action taken
- Reviewing the effectiveness of the preventative action taken to verify that its implementation has in fact solved the problem

The results of all corrective and preventive actions are reviewed at management review meetings

RELATED DOCUMENTS

FM10 – Operation Procedure

FM11 – Organisation Chart

FM15 – CAD Drawing Procedure

FM12 – Company Quality Policy Statement

FM20 – Meeting Agenda/Minutes

FM21 – RFI Form

FM25 – Site Visit Records

FM30 – Induction Register

FM40 – Internal Auditing

FM41 – Corrective Action Request

FM50 – Weekly Staff Contribution

FM51 – Project Resource Tracker

FM60 – DPC CAD Drawing Template

FM61 – DPC Drawing Register

DPC Engineering Policies and Procedures

Controlled Document No: 10

Revision 01

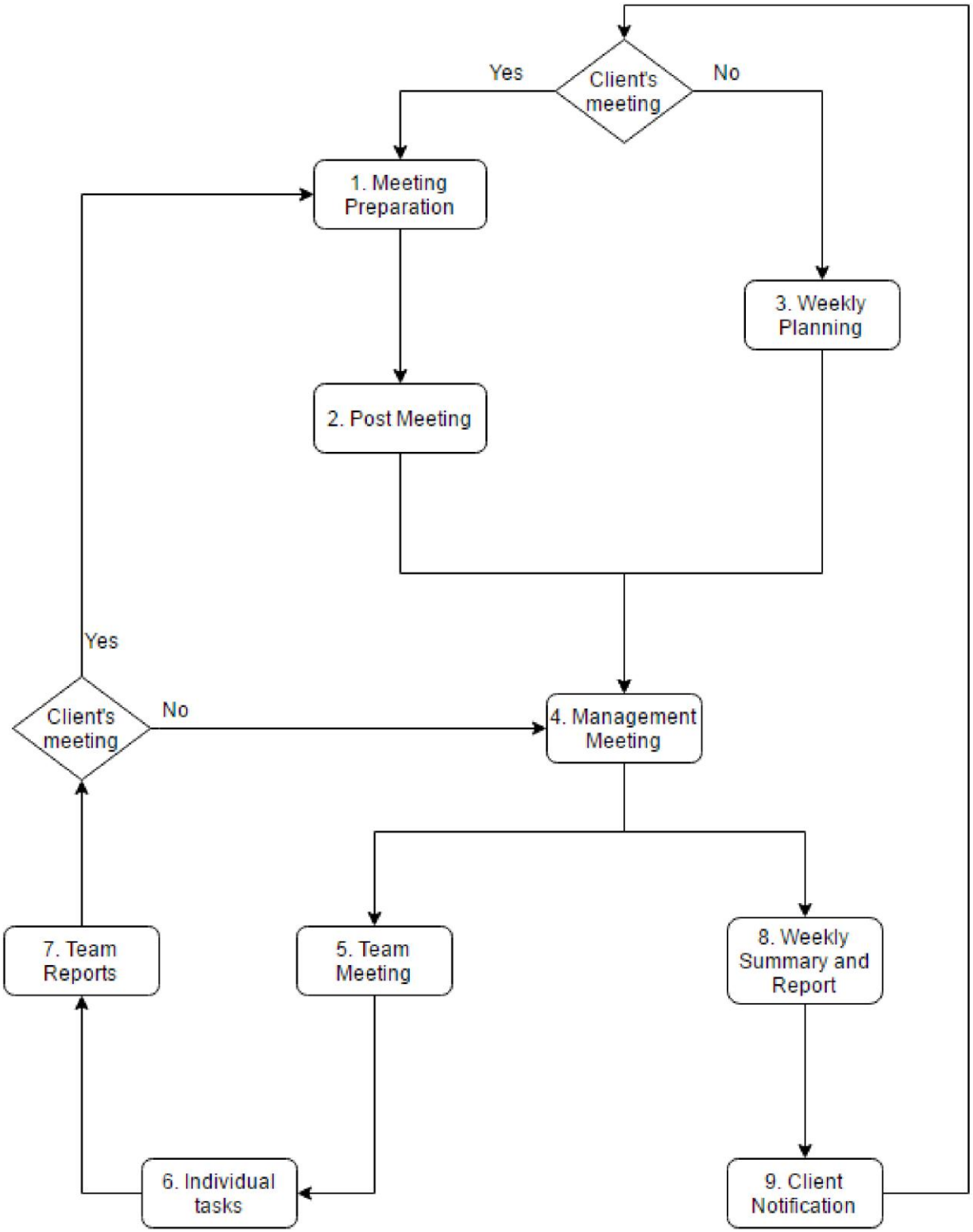
Operation Procedure

Reviewed By	Role	Signature	Date
Jia Shi	Assistant Project Manager		

Authorised By	Role	Signature	Date
Matthews Samuel	Project Manager		

Next Review Due: 30/06/17

1 Process Flow



2 Process Detail

1. Client meeting preparation

- Meeting agenda send to the client prior to the meeting (FM20)
- Current project progress and expenditure
- Current issues and challenges associated with the project
- Any questions & feedback to the client from our departments

2. Post client meeting

- Summarise meeting minutes and send to the client (FM20)
- Client feedback discussion
- Weekly planning and adjustments from client's feedbacks

3. Weekly planning (no client meeting been held)

- Between PM and APM
- Review current progress and expenditure
- Weekly planning as per programme
- Make necessary adjustments from team feedbacks

4. Management meeting – Meeting between PM, APM and team leaders

- Agenda and meeting minutes will be prepared and sent
- Discuss feedback from the client (if any)
- Discuss following week plan
- Discuss current expenditure and remaining resources
- Team feedback – report conflicts, personal or inter-personal issues

5. Individual team meeting

- Weekly planning and discussion within each department
- Team leader to send out agenda and record meeting minutes

6. Individual tasks

- Each member to finish their assigned weekly tasks, either individually or group
- Each member to record their time spent on tasks and finish weekly staff contribution sheet FM50

7. Team report

- Team leader to collect, review and approve works done by the team members
- Team leader to consolidate approved works into a presentable format for PM and APM for final review
- Team leader to pre-approve time sheet (FM50) of each member and submit to PM or APM for final approval
- Team leader to collect team feedback and prepare for discussion in next meeting

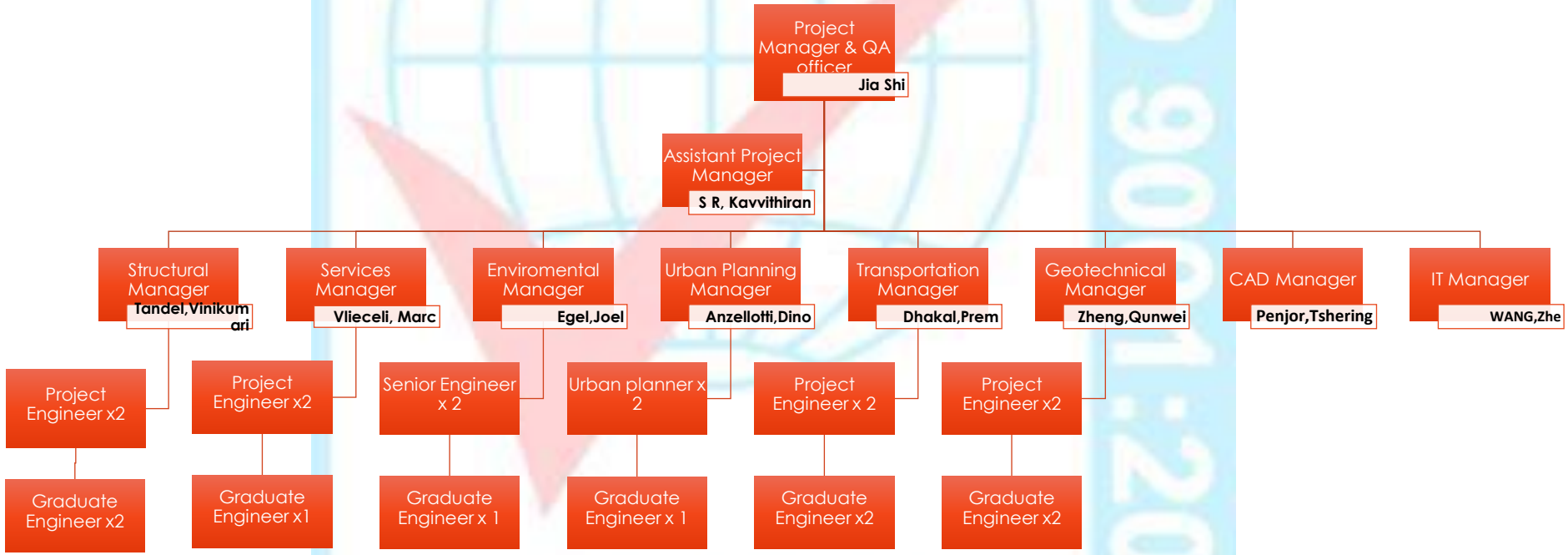
8. Weekly summary and report

- Between PM and APM
- Review current up to date works submitted by team leaders
- Prepare weekly progress report to the client
- Review and approve time sheet submitted by team leaders
- Update current expenditure and remaining resources (FM51)

9. Client notification

- Report (by email) current work in progress and current and remaining resource and expenditure.

DPC ENGINEERING ORGANISATIONAL CHART



TQCSI ISO 9001:2008 Quality Certified AU727B-QC

DPC Engineering Policies and Procedures

Controlled Document No: 15

Revision 00

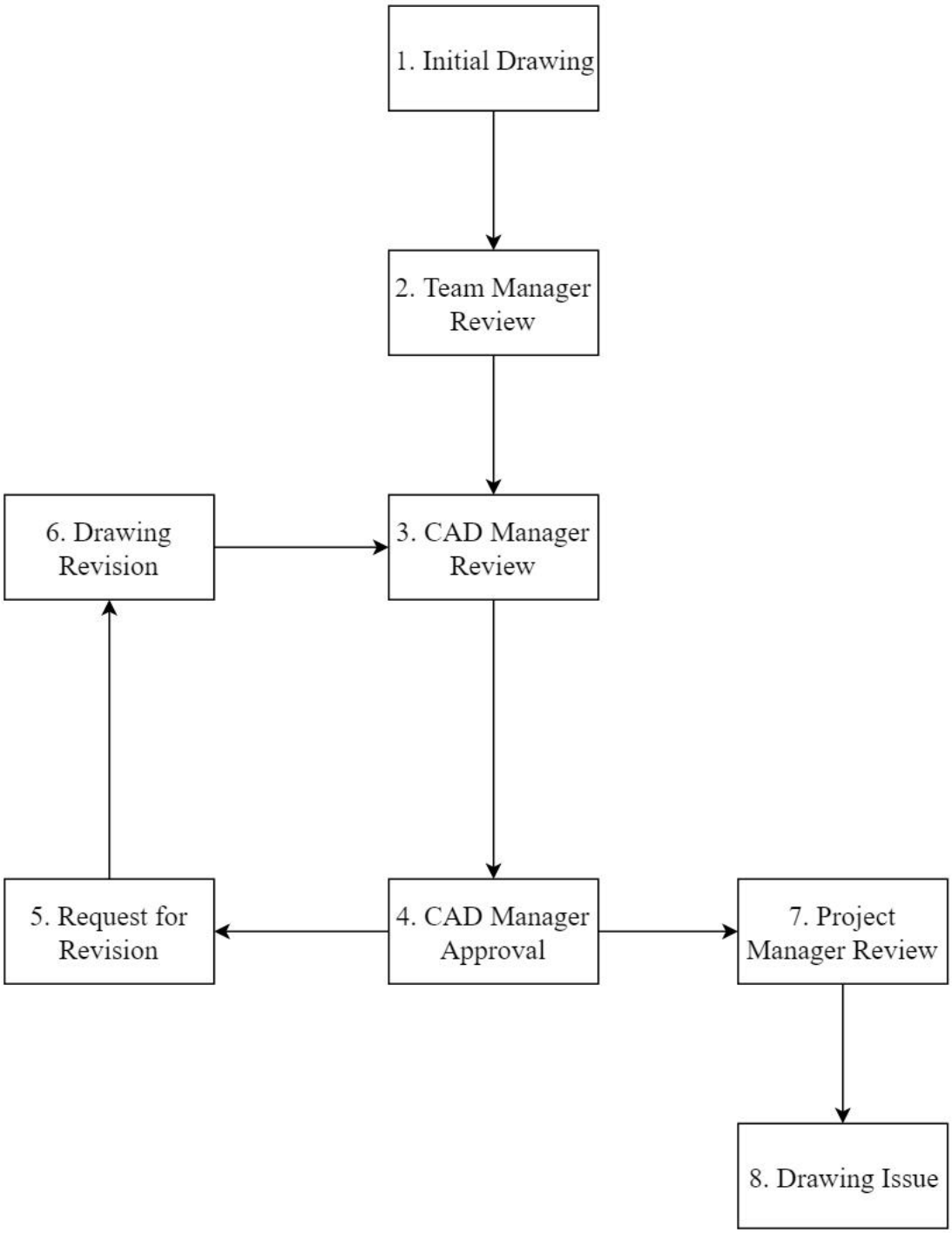
CAD Drawing Procedure

Reviewed By	Role	Signature	Date
Kavvithiran S Rajendhiran	Assistant Project Manager		

Authorised By	Role	Signature	Date
Jia Shi	Project Manager		13/06/17

Next Review Due: 30/09/17

1 Process Flow



2 Process Detail

1. Initial Drawing

- Each design engineer shall produce their own CAD drawing necessary to their design
- CAD drawing shall be drawn in the standard template which provided by CAD manager with assigned layers, lin- weight, fonts and etc

2. Team Manager Review

- Team manager shall collect all the proposed drawings within the group for a specific project
- Team manager is responsible to identify gaps between drawings and request for further drawings if required
- All drawings shall be reviewed and recorded in FM61 – DPC Drawing Register
- CAD drawings and drawing register shall be bundled up before send to CAD manager for review

3. CAD Manager Review

- CAD manager to check drawing received with drawing register
- CAD manager to check drawing revision is matching details in drawing register
- CAD manager to fit drawing model into DPC drawing titleblock (FM60) with appropriate scale

4. CAD Manager Approval

- Upon review, CAD manager shall update the status of the drawing in DPC drawing register
- Drawing approved shall be bundled up for project manager review
- Drawing not approved will be returned to team manager with a list of things to revise per drawing
- A date will be given by the CAD manager for the re-submit the returned drawings

5. Request for Revision

- Team manager shall review the returned drawings and the list of things for revision
- Returned drawings will be given back to the original author for revision

6. Drawing Revision

- The original author shall revise the returned drawing(s) as per CAD manager's requirements within the time requested
- The revised drawing shall be given back to the team manager for review
- Team manager shall review revised drawings and update the status of drawing register
- Revised drawings will be bundled and sent to CAD manager for review

7. Project Manager Review

- Project manager or assistance project manager shall review all drawings sent by the CAD manager for final approval
- The received drawings will be compared with drawing register for any discrepancies
- Any gaps between departments will be identified by the project manager or assistance project manager based on the overall progress of the project
- Gaps will be requested in the management meeting by the project manager to each team manager. The drawings shall be on hold before these gaps are closed

8. Issue of Drawing

- Once a full drawing set is completed and approved by the project manager, it will be issued to the client
- The competed drawing set shall be issued together with FM61 – DPC Drawing Register

DPC Engineering Policies and Procedures

Controlled Document No: 12

Revision 00

Company Quality Policy Statement

Reviewed By	Role	Signature	Date
Jia Shi	Assistant Project Manager		

Authorised By	Role	Signature	Date
Matthews Samuel	Project Manager		

Next Review Due: 30/06/17

COMPANY QUALITY POLICY STATEMENT

DPC Engineering Pty Ltd has made a commitment to pursue quality excellence in all aspects of our business and has established a Quality System for the engineering design and all other related activities to achieve the following objectives:

- To meet our client's needs and satisfaction by providing consistently quality products and services
- To give our client a high level of confidence that the targeted quality has been achieved and will be continuous improved in our core products or services provided
- To ensure all our employee constantly aims to improve the overall quality of our services

All the processes and any other supportive activities are encompassed by the Quality System which ensures the policies and processes developed are reviewed and sustained under the system.

It is the responsibility of management to maintain and implement the quality policy and improve our quality of services. All DPC's employee share the responsibility to ensure the Quality system has been correctly implemented. Any works produced under this system shall fit for its purposes and comply with relevant specification established.

In the event of non-conformity or deficiencies of quality occurring, they have to be addressed and corrected immediately disregards the type of problem. The management shall review the event and follow up with actions to ensure problem will not recur.

The Quality System is in accordance with the AS/NZS ISO9001:2016. This system has been reviewed and approved for its intent and implementation by the Project Manager.

DATE: 30/03/17 SIGNED:

Project Manager

MEETING AGENDA/MINTUES

Date:		
Time:	Start:	Closed:
Location:		
Attendees:		
Apologies:		

Item #	Description	Owner	Date
1			
1.1			
1.2			
1.3			
1.4			
1.4.1			
1.5			
2			
2.1			

Recorded by: Signature: Date:

REQUEST FOR INFORMATION FROM

Date of Request: _____

Source of Information to be sought (circle one): Internal External

Team Manager and Department: _____

Required by date: _____

Information to be obtained from: _____

Detail of information that is required:

Site Visit Records

Project Name: _____

Location of Site: _____ **PPT required: Y / N**

Date: _____ **WHS Induction required: Y / N**

Time in: _____ **Time Out**: _____

Observations	Comments

Staff Name: _____ **Sign**: _____ **Date**: _____

INDUCTION REGISTER

Project Name: Oakland's Park Grade Separation

Induction Date	Inductee Name	Inducted By	Declaration: I, hereby confirm that I have been inducted into the Quality Processes of DPC Engineering; and understand these Processes and will adhere to them
3/05/17	S Rajendhiran,Kavvithiran	Jia Shi	SK
3/05/17	Dhakal,Prem Lal	Jia Shi	PD
3/05/17	Yang,Chizhengping	Jia Shi	YC
3/05/17	Gebreegziabher,Hayelom Hiluf	Jia Shi	GH
3/05/17	Jamale,Raza	Jia Shi	JR
3/05/17	WANG,Pengfei	Jia Shi	WP
3/05/17	Anzellotti,Dino Lorenzo	Jia Shi	AD
3/05/17	DUAN,Yongji	Jia Shi	YD
3/05/17	Gautam,Rup Narayan	Jia Shi	GP
3/05/17	Du,Yuxuan	Jia Shi	DY
3/05/17	Tandel,Vinikumari	Jia Shi	TV
3/05/17	WANG,Haobin	Jia Shi	WH
3/05/17	UPADHYAY,Parin Tushar	Jia Shi	PU
3/05/17	Amran,Muhamad Amirul	Jia Shi	AM
3/05/17	Matthews,Samuel David	Jia Shi	SM
3/05/17	Vieceli,Marc	Jia Shi	MV
3/05/17	CHIN,Denis Yung Chien	Jia Shi	DC
3/05/17	ZHAO,Lingzi	Jia Shi	LZ
3/05/17	INAMULLAH,.	Jia Shi	IM
3/05/17	Egel,Joel Emmanuel	Jia Shi	JE
3/05/17	Amrinder Singh,.	Jia Shi	AS
3/05/17	Ho,Quang Vinh	Jia Shi	HV
3/05/17	Saeedi,Maliha	Jia Shi	MS
3/05/17	Zheng,Qunwei	Jia Shi	QZ
3/05/17	Tang,Chun Yin Julian	Jia Shi	TJ
3/05/17	Su,Longquan	Jia Shi	SL
3/05/17	Wong,Pak Ren Vincent	Jia Shi	WV
3/05/17	Dong,Biyan	Jia Shi	BD
3/05/17	Penjor,Tshering	Jia Shi	TP
3/05/17	WANG,Zhe	Jia Shi	WZ

Approved by: Jia Shi **Date**: 03/05/17

DPC Engineering Policies and Procedures

Controlled Document No: 31

Revision 00

Internal Auditing

Reviewed By	Role	Signature	Date
Jia Shi	Assistant Project Manager		

Authorised By	Role	Signature	Date
Matthews Samuel	Project Manager		

Next Review Due: 30/06/17

1 PURPOSE:

The Internal Audit process is to monitor and measure company's performance against planned objectives and identify the areas of potential improvement of company services. This audit process confirms compliance of the AS/NZS ISO9001:2016 which company's Quality Management system is based on.

2 SCOPE:

This audit process applies to DPC Engineering Internal auditor and shall be supported by all staff of DPC Engineering.

3 DETAILED PROCEDURES:

3.1 Annual Audit Plan

On or before 30th June each year, the QA officer shall develop and document an Internal Audit Plan for the coming financial year. To ensure impartiality, auditors must not audit their own work. The audit plan shall be agreed and signed off by the Project Manager. A copy of the audit plan shall be forwarded to the department managers.

3.2 Schedule the Audit

Prior to the scheduled audit, the QA officer shall contact the department managers and agree on a firm date and time for the internal audit. A meeting request and its contents shall be confirmed through email.

3.3 Prepare the Audit

The QA officer shall prepare for the upcoming audit by:

- Reviewing ISO9001 standard latest revision
- Reviewing documented procedure related to the audited department
- Reviewing previous audit results

3.4 Audit Process

1. Conduct audit as per procedures
2. Closing meeting – discuss findings, positives and negatives, agree on any corrective or preventative action will be undertaken and expected completion date of actions

3.5 Record and Register Non-compliance

Record and register any non-compliance identified as per corrective/preventative action request.

3.6 Generate Audit Report

The QA officer shall produce an internal audit report which includes:

- Date of audit
- Audit number
- Area/process audited
- The auditor
- The auditee
- Audit findings and results

The result of audit findings shall be reported as either Positive Observation, Negative Observation or Non-compliance. The auditor shall present the report to the auditees with their acknowledge and acceptance of the report. A copy will be retained for both auditor and auditee.

3.7 Date Entry

The QA officer shall ensure all detail from audit report have been entered into the internal audit tracking register together with the results of observations. The audit tracking register shall be monitored and updated in a regular basis. The signed audit report shall be saved in the assigned folders on the company server.

3.8 Close Out Audit

The QA officer shall monitor any corrective or preventive action and closed out once it completed.

CORRECTIVE ACTION REQUEST

Name: _____ **Date:** _____

Nominated Action Person: _____

Source (how was issue identified):

Description of Issue:

Corrective/Preventative Action to be taken:

Expected Completion Date: _____

CAR Closed out by: _____ **Signed:** _____

Weekly Staff Contribution

Employee Name:	
Title:	
Department:	

Description of works completed:

Assigned Tasks: General information about sizing of Super tees and its dead Load.

Other works done:

Employee Feedback:

Satisfactory team effort to achieve goal for this week.

Employee to complete

Day	Contribution (Hrs)	Description
Thursday		
Friday		
Saturday		
Sunday		
Monday		
Tuesday		
Wednesday		
TOTAL		

This part to be finished by Department Manager

Total Hours Pre-approved:

Comment:

Comment on quality of assigned task first, then add additional comment if needed

Approved by: Signature: Date:

This part to be finished by Project Manager or Assistant Project Manager

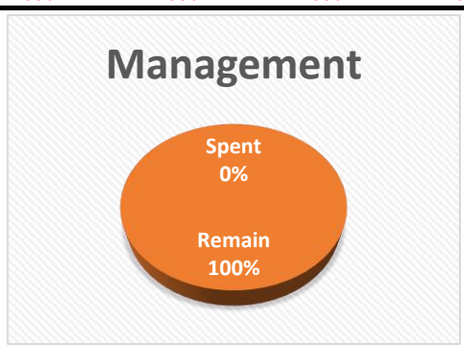
Total Hours Approved:

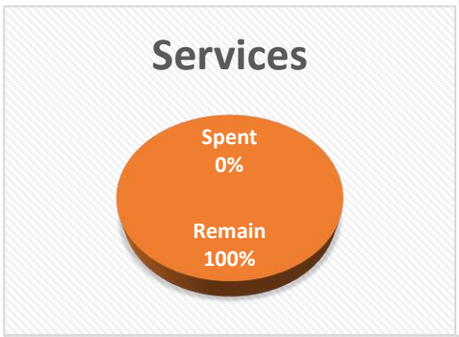
Comment:

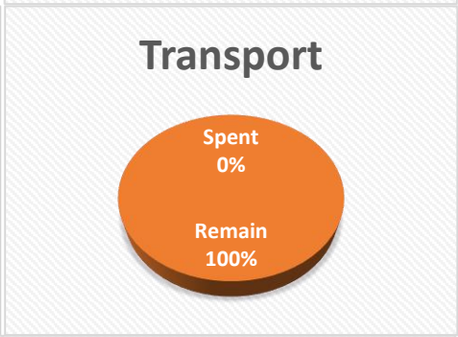
Approved by: Signature: Date:

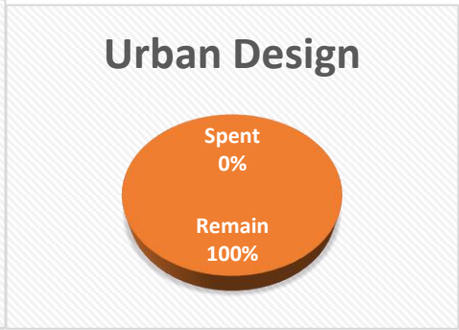
Project Expenditures and Progress Tracker

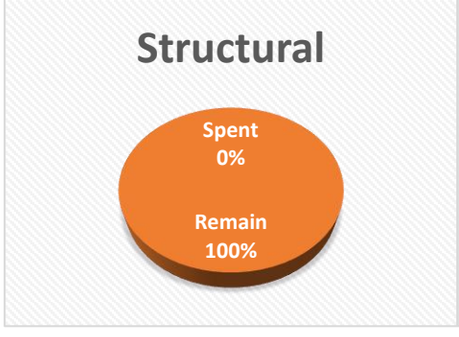
	Department	HOURS PER WEEK							Total Hours
		16/03 - 22/03	23/03 - 29/03	30/03 - 05/04	06/04 - 12/04	13/04 - 19/04	20/04 - 26/04	27/04 - 03/05	
Projected Expenditures	Management	30	30	30	30	30	30	30	210
	Services	10	75	75	75	75	75	30	415
	Transport	10	75	75	75	75	75	30	415
	Urban Design	10	75	75	75	75	75	30	415
	Structural	10	75	75	75	75	75	30	415
	Enviromental	8	60	60	60	60	60	30	338
	Geotechnical	10	75	75	75	75	75	30	415
Actual Expenditures	Management								0
	Services								0
	Transport								0
	Urban Design								0
	Structural								0
	Enviromental								0
	Geotechnical								0
	Total Expenditures	88	465	465	465	465	465	210	2623
	Actual Expenditures	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
									0%
	Project Progress	***5%***	***15%***	***15%***	***25%***	***25%***	***10%***	***5%***	***100%***

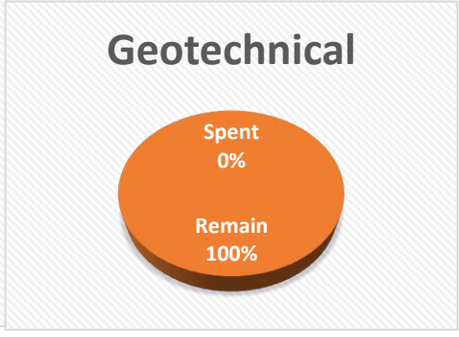












Prepared by: _____ Date: _____

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REVISION NO.	REVISION DESCRIPTION	REVISION DATE	BY:	VERIFIED BY:	APPROVED BY:

Government of South Australia
Department of Planning, Transport and Infrastructure

University of South Australia

DPC
The Difference in thinking

PROJECT:

OAKLANDS PARK TRAIN GRADE SEPARATION - DIAGONAL AND MORPHETT ROADS

DRAWN BY:	SIGNED:	DATE:	DRAWING TITLE:
VERIFIED BY:	SIGNED:	DATE:	PROJECT NUMBER:
CHECKED BY:	SIGNED:	DATE:	DRAWING NUMBER: 000 / REVISION:
APPROVED BY:	SIGNED:	DATE:	SCALE:

DPC Drawing Register

Document No.:	Directory:	Area:	Package	Document Name	Sheet Title	Sheet No.	Drawn By	Reviewed by	Redone
DPC-Structures-Package 01-Rail Bridge-Title - Notes-001-rev1		Structures	Package 01	Rail Bridge	Title - Notes	001	Sam		
DPC-Structures-Package 01-Rail Bridge-Plan View-002-rev1		Structures	Package 01	Rail Bridge	Plan View	002	Sam		
DPC-Structures-Package 01-Rail Bridge-Typical Cross Section-003-rev		Structures	Package 01	Rail Bridge	Typical Cross Section	003	Vini		
DPC-Structures-Package 01-Rail Bridge-Piles-004-rev		Structures	Package 01	Rail Bridge	Piles	004	Other		
DPC-Structures-Package 01-Rail Bridge-Capping Beam-005-rev1		Structures	Package 01	Rail Bridge	Capping Beam	005	Other		
DPC-Structures-Package 01-Rail Bridge-Columns-006-rev		Structures	Package 01	Rail Bridge	Columns	006	Sam		
DPC-Structures-Package 01-Rail Bridge-Headstock-007-rev		Structures	Package 01	Rail Bridge	Headstock	007	Sam		
DPC-Structures-Package 01-Rail Bridge-Super-Tee-008-rev		Structures	Package 01	Rail Bridge	Super-Tee	008	Jia	Sam	Not Required
DPC-Structures-Package 01-Rail Bridge-Deck Reinforcement-009-rev		Structures	Package 01	Rail Bridge	Deck Reinforcement	009	Amirul	Vini	Sam - Due to poor quality
DPC-Structures-Package 01-Rail Bridge-Parapets-010-rev		Structures	Package 01	Rail Bridge	Parapets	010	Amirul	Vini	Not Required
DPC-Structures-Package 02-Rail Platform-Title - Notes-001-rev		Structures	Package 02	Rail Platform	Title - Notes	001	Parin		
DPC-Structures-Package 02-Rail Platform-Plan View-002-rev		Structures	Package 02	Rail Platform	Plan View	002	Will	Vini	Not Required
DPC-Structures-Package 02-Rail Platform-Typical Cross Section-003-rev		Structures	Package 02	Rail Platform	Typical Cross Section	003	WIll	Vini	Not Required
DPC-Structures-Package 02-Rail Platform-Elevation View-004-rev		Structures	Package 02	Rail Platform	Elevation View	004	WIll	Vini	Not Required
DPC-Structures-Package 02-Rail Platform-Slab Top Reinforcement-005-rev		Structures	Package 02	Rail Platform	Slab Top Reinforcement	005	Parin	Vini	Not Required
DPC-Structures-Package 02-Rail Platform-Slab Bottom Reinforcement-006-rev		Structures	Package 02	Rail Platform	Slab Bottom Reinforcement	006	Parin	Vini	Not Required
DPC-Structures-Package 02-Rail Platform-Slab Reinforcement - Cross section-007-rev		Structures	Package 02	Rail Platform	Slab Reinforcement - Cross s	007	Parin	Vini	Not Required
DPC-Structures-Package 02-Rail Platform-Beam Reinforcement-008-rev		Structures	Package 02	Rail Platform	Beam Reinforcement	008	Parin	Vini	Not Required
DPC-Structures-Package 02-Rail Platform-Columns-009-rev		Structures	Package 02	Rail Platform	Columns	009	Parin	Vini	Not Required
DPC-Structures-Package 02-Rail Platform-Footings-010-rev		Structures	Package 02	Rail Platform	Footings	010	WIll	Vini	Not Required
DPC-Structures-Package 02-Rail Platform-Footing/Column Connection-011-rev		Structures	Package 02	Rail Platform	Footing/Column Connection	011	Sam		
DPC-Structures-Package 03-Architectural Screens-Title - Notes-001-rev		Structures	Package 03	Architectural Screens	Title - Notes	001	Other		
DPC-Structures-Package 03-Architectural Screens--002-rev		Structures	Package 03	Architectural Screens		002	Other		
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DPC-Structures-Package 05-Centre Median Barriers-Title - Notes-001-rev		Structures	Package 05	Centre Median Barriers	Title - Notes	001	Vini	TP	Not Required
DPC-Structures-Package 06-Electrification Structures-Title - Notes-001-rev		Structures	Package 06	Electrification Structures	Title - Notes	001	Amirul		
DPC-Structures-Package 06-Electrification Structures-Typical Detail-002-rev		Structures	Package 06	Electrification Structures	Typical Detail	002	Amirul	Vini	Not Required

Sample Only