

CONSTRUCTION QUALITY IMPROVEMENT COLLABORATIVE





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This guidance is advisory and it is intended to support Contractors to develop a proactive quality approach that they will take in the effective fulfilment of their obligations in delivering projects to the expected standards of construction quality.

This guidance has been developed with support from a number of contracting organisations for which CQIC is grateful. Feedback on the contents would be welcomed. This is a dynamic document and CQIC may update it to reflect such feedback.

**Version Control - V1.1** 







## 1. Introduction/Purpose

- 1.1 This 'Construction Quality Guidance for Contractors' has been prepared as a guide and reference for Contractors on methods and best practice processes to manage the delivery of quality during the construction and handover period of a construction contract.
- 1.2 This guide aims to highlight the key processes and tools that should assist Contractors prepare, monitor, control and evidence the delivery of quality on construction projects, refurbishment or new build, irrespective of size, location or complexity.
- 1.3 This guidance document primarily focuses on the construction delivery stage of a project however, a number of key 'pre-contract' related matters, processes and considerations are also captured.
- 1.4 This document has been prepared following consultation and input from a variety of industry organisations and contractors, including:
  - > Morgan Sindall
  - > Morrison Construction
  - > Robertson Construction
  - > George Leslie Ltd

- These organisations are currently active participants in the Construction Quality Improvement Collaborative (CQIC) which is an initiative involving Scottish Government, Construction Scotland, SFT, other public sector contributors and representative bodies across the construction industry (including CECA, RIAS, SBF and RICS) with the overall vision of "creating a sustainable quality culture across construction". The CQIC aims to become a focus for the sector, bringing everyone together to play their part in building a culture where sustainable construction quality is at the heart of decision-making and there is a genuine commitment to getting it right first time.
- 1.6 Why do we want to improve the quality in what we do?

The construction sector and industry has come under close scrutiny over recent years due to a number of high profile construction projects where 'quality' was called into question. Over the last 5 years there have been significant, well publicised, failures of quality on a number of projects including Edinburgh Schools, DG One Leisure Centre, North West Campus and Queen Elizabeth University Hospital. As a consequence of these projects and the

- negative impact they have imposed on the Employer (Client), Public and Contractors, it is recognised that as an industry our approach to the delivery of Quality must improve.
- ..7 Issues relating to defects and nonconformances arising during the construction and handover phases of a project all impose a variety of negative influences, examples of which include:
  - failure of the contract works / project to operate as required and intended
  - > Health & Safety risks to building users and the general public
  - > the necessity to undertake corrective works
  - > disruption to programme and sequencing of works
  - > potential to impose challenges and greater demands on the workforce
  - increased health and safety risks associated with correcting errors
  - impinges or delays the achievement of completion certification
  - cost and disruption impact on the Contractor and their supply chain



## 1. Introduction/Purpose (continued)

- > cost and disruption impact on the Employer and their use / occupation
- > disruption to Employer / end users to remedy defects
- > increased waste and embodied carbon
- > financial impact on the Contractor and the supply chain
- reputational damage to both the contracting organisation, Employer, project stakeholders and the industry
- 1.8 Establishing and adhering to a proactive plan and approach to Quality can minimise the likelihood of errors. The plan must set out the approaches to getting the work right in the first place and not just cover the approach to snagging the works and remedying the snags and defects which are found. This document aims to provide some key guidance and a platform with which to adopt a proactive approach to successfully deliver construction quality.







## 2. Pre-Contract Considerations

- 2.0.1 The chosen procurement route for a construction contract will have varying implications regarding design responsibilities. These should be assessed and understood fully before entering a construction contract to understand where design responsibilities lie, particularly any post contract/ construction stage design that is transferred to the Contractor.
- 2.0.2 The scope of services and capabilities of those responsible for design should be established and assessed for their competence in fulfilling such obligations.
- 2.0.3 Finally, the experience and expertise of individuals within the Contractor's organisation, or any required subcontracted services, require to be carefully evaluated and selected.
- 2.0.4 The following section details some key tools and activities that should be considered by the Contractor seeking to tender and embark on a potential construction contract.

#### 2.1 Design Responsibility Matrix

- 2.1.1 It is commonplace and recommended that a 'Design Responsibility Matrix' (DRM) is included within the scope of services for those responsible for design. Those procuring design services should detail the expectations and requirements of design services to ensure that both requirements and responsibilities are clearly recorded and understood.
- 2.1.2 The DRM should be developed from the onset of the procurement of design services, and thereafter updated to align with the developing design and/or any associated changes to the requirements of the designers or contract. Where not clearly defined by the Employer, the design consultant/s have a duty of care to advise on any limitations on their design and, where appropriate, additional services are necessary.
- 2.1.3 An example of a DRM is available at Sample Design Responsibility Matrix

- 2.1.4 It is essential that all design stakeholders review and agree the DRM throughout the design process.
- 2.2 Scope of Services Design Team / Member
- 2.2.1 The scope of services of any design team / design team member should be determined to align with the proposed procurement strategy.
- 2.2.2 The Contractor should seek to understand any limitations of a designer's services that may impose residual design obligations or responsibilities on them.
- 2.2.3 For the purposes of this guide, Traditional and Design & Build procurement strategies are considered as these are the most common in the industry today.



#### 2. Pre-Contract Considerations (continued)

#### 2.2.4 Traditional Procurement

2.2.4.1 The Employer and their appointed designer/s hold design responsibility during both design and construction stages unless expressly detailed under a Contractor Design Portion element (see Section 2.3 below).

#### 2.2.5 Design & Build

2.2.5.1 The Contractor is appointed and holds design responsibility during both the design and construction stages.

## 2.3 Contractor Design Portion

2.3.1 Any elements of the design that are determined and agreed with Employer as not the responsibility of the Designer and that of the Contractor, should be clearly identified, agreed and thereafter recorded in the Scope of Services, Design Responsibility Matrix, or by contract variation if necessary.

- 2.3.2 It is essential that the responsibility for such Contractor Design Portion (CDP) elements are identified and clearly highlighted to prospective Contractor/s during the tender process. The Contractor will thereafter be required to procure these services along with the appropriate levels of indemnity insurance for the corresponding design liability. Contractors should seek guidance from their insurers on the required levels of liability insurance.
- 2.3.3 Potential Sub-contractor's undertaking any CDP design should also be carefully selected on the basis of their experience, ability and expertise to satisfy the requirements of the design and delivery of any such CDP works.
- 2.3.4 Contractor Design Portions should only be for those aspects of the design that require specialist design knowledge from a manufacturer or sub-contractor. The introduction of CDP packages should not be used to reduce the scope of works of the Design Team. The Lead Designer should remain responsible for the integration of the CDP packages into the design and co-ordination of details between CDPs.

- 2.3.5 The Employer and Designer should make all information relevant to the identified CDP available to the Contractor during the tender process, with any subsequent information relayed without delay.
- 2.3.6 CQIC have a working group which is working on how CDP can be best used to support the delivery of construction quality. Guidance will be developed. More details are available on the CQIC website.







## 3. Construction Stage

## 3.1 Quality Plan

- 3.1.1 The project specific Quality Plan should be prepared and agreed with the Employer prior to the commencement of the works. The purpose of the Quality Plan is to communicate the process, methodologies and control measures by which the construction quality is going to be delivered. Its primary focus should not be on how the works will be snagged, and any defects which are identified remedied, but should provide detail of the approaches to getting the work right in the first place.
- 3.1.2 The Quality Plan should be initiated, developed and controlled by the persons identified as responsible for the delivery of the contract works. The identified person/s must have:
  - > the authority / responsibility for the delivery of the contract works
  - be suitably qualified and have knowledge and understanding of the requirements, deliverables, and standards to be delivered by both inhouse and external subcontractor resources
  - where necessary, be supported by suitably experienced and/or qualified individuals responsible for their area of expertise and responsibility

- have overall responsibility for the full contract duration including commissioning, demonstration, and handover
- 3.1.3 The Quality Plan should be reviewed at regular intervals throughout the life of the project, being updated as necessary.
- 3.1.4 An example of a Quality Plan structure is available at Sample Quality Plan Structure
- 3.1.5 The sections below detail the key contents of a Quality Plan that should be considered and included.

# 3.2 Contractor's Construction Quality Assurance Methodologies

- 3.2.1 The Contractor must ensure that construction quality procedures align with any quality assurance requirements / policies e.g. ISO 9001:2015, held by their organisation. Under these procedures compliance certification is obtained and renewed following demonstration of compliance.
- 3.2.2 British Standards publications BS EN ISO 9000:2015 and the recent BS99001:2022 Built Environment Quality Management also provide key guidance references.

3.2.3 It is essential that any Quality Management methodology or process is defined, recorded and updated in line with the required procedures. This must include planning for quality as well as how defects/non-conformities are managed.

### 3.3 Supply Chain Procurement

- 3.3.1 The selection and procurement of the Supply Chain required to deliver the contract works requires to be carefully considered and assessed. This process is essential in checking their capabilities, methodologies, materials etc. are in compliance with the requirements and are supported by quality management processes to control and evidence such compliance.
- 3.3.2 Undertaking due diligence checks in selecting the Supply Chain will reduce the likelihood for errors and non-conformances. It is essential that the potential member of the Supply Chain is made aware of the importance of achieving the required standards of quality from the outset of the procurement process.



## 3.4 Design (incl. CDP)

- 3.4.1 As detailed in Section 2, the Contractor must detail any residual design responsibilities that may exist within the contract requirements.
- 3.4.2 The processes and timelines necessary for the submittals, review, comment and authorisation / approval for each CDP package must be established and clearly communicated.
- 3.4.3 The processes must be closely monitored and checked by the Contractor's identified person/s of responsibility.
- 3.4.4 All records of the process should be retained and documented by the Contractor for inclusion in the handover records or Operation & Maintenance Manuals.

# 3.5 External Inspections (Designers / CoW / Building Control)

3.5.1 It is commonplace for inspections of quality to be undertaken by external parties. These can include inspections by:

#### 3.5.2 Statutory Authorities:

 Planning Officer – for the cleansing or compliance against any Planning Condition requirements

- Building Control Officer for the inspection of compliance with Building Warrant standards
- Roads Authority for the inspection of compliance with Road Construction Consent approvals
- Environmental Health for the inspection of compliance with Environmental Health requirements and standards
- > Utility Providers for the inspection of compliance with installation and connection to electrical, gas, water and drainage (foul and surface water) infrastructure.

#### 3.5.3 Employer and/or Contract Representatives:

Prior to entering into contract, it is recommended that the roles and responsibilities of any Employer and/or Contract Representatives responsible for monitoring quality or certifying Completion of part or all of the works, are defined. Examples include:

- Clerk of Works (Fabric and Mechanical & Electrical) commonly used
- Independent Tester (Fabric and Mechanical & Electrical) commonly used

- on revenue funded DBFM projects but more recently being appointed as a specialist adviser to Employers on D&B projects
- Design Team representatives (both Traditional or D&B (Retained Services or Shadow Team Representatives)
- > Other Employer representatives such as 'Authorised Persons'
- 3.5.4 It is recommended that the Contractor establishes in advance of the works and prior to contract (where practical), the following essential parameters with such external inspectors:
  - > Contractual duties or obligations of any named 'inspectors'
  - > Frequency of visits/inspections to be undertaken for the contract duration (thereafter identified in the Contractor's construction programme)
  - > Pre-defined list of 'witnessing' requirements
  - Any accommodation or resources that the contractor is to provide for the use by 'inspectors'



- Any defined contractual mechanism for notifying of the requirement for inspection
- Any defined contractual mechanism for notifying the requirement for exposing and remediation of any such matters of concern raised
- Whether access will be required and/or provided to the Contractor's Quality Management System. How this will be achieved and what the approach to identifying, and dealing with issues on the system will be
- Any requirement for photo-capture of the works as they progress
- > Agreed process by which to communicate with external parties. See Section 4 below.
- 3.5.5 It is essential that persons/representatives named to undertake inspections under the contract, are clearly identified and are kept informed on the progress of the project and/or relevant work package.
- 3.5.6 Early and regular engagement, particularly prior to the commencement of the works, can mitigate the potential for misinterpretation of the construction standards. The Quality Plan should capture and monitor this.

# 3.6 Methods of Recording / Evidencing Quality Compliance

3.6.1 The process by which those responsible for undertaking / completing each work package, or element of work, is commonly recorded in an 'Inspection & Test Plan' (ITP) which is a procedural checklist that sets out the key processes and where necessary, staged authorisation to ensuring predetermined works / work packages are undertaken and evidenced correctly. The Chartered Quality Institute (CQI) Construction Special Interest Group (ConSIG) has a video available which provides guidance on the preparation of ITPs – CQI ConSIG ITP Video

## 3.6.2 **Key Considerations:**

- Dependencies / interfaces with other trades / work packages – it is essential that any ITP process takes into consideration any dependencies of other work package sequencing that impacts on the delivery of works in order to prevent abortive and/or corrective works as a result of out of sequence works.
- > Inspection & Test Plan, be it for part or a complete element of work, requires to be tailored specifically to the project and / or

- area of work. Samples of ITPs for various elements of work will be made available on the CQIC website in the Resources section. CQIC Contractor Site Guidance Sample Supporting Documents
- Staged / sequential sign off procedures and requirements for each Inspection & Test Plan should be recorded and evidenced as each stage is completed.
- Workforce / subcontractor undertaking work must have demonstrated knowledge and understanding of the ITP prior to undertaking the works / section of works.
- Workforce / subcontractor must evidence that they are competent / trained to undertake the work package works.
- The supervisors / management personnel responsible for work packages / works, must be suitably competent and trained to inspect and sign off the works / sequential works of the ITP.

## 3.6.3 Minimum Requirements of the Inspection & Test Plans:

Must clearly record the contract 'for Construction' status specification and drawings relevant to the works to be



undertaken.

- > Process must be checked and tailored to the specific works / area of work
- Identify the specification references for the materials to be used.
- > Identify 'hold points' in the build process for inspections to be carried out.
- Identify the method and frequency of checking
- > Identify the locations of the checks
- Identify the records to be provided as evidence that the requirements have been met
- Responsibilities for inspections and closing out any actions
- Identify the quality standard to be achieved (the "pass score") for each requirement

### 3.6.4 Record Keeping:

The keeping of extensive and accurate records of the work is an essential aspect of the management of quality. Whilst this can still be done in paper copy, the most common approach now is using a digital platform. There are numerous quality

- management platforms available.
- Sharing of access to the quality records with the design team, Employer's Representative, Clerk of Works etc., whether mandated in the contract or not, brings significant benefits. Having one place that the quality records are kept means there is "one source of the truth" in terms of the records of the approach to quality.
- > The quality information kept is not just about recording the snags, defects or nonconformances. It is about keeping good accurate records of the processes for getting the work right and being able to demonstrate that the works were done to the required standards. This can include quality inspection records / checksheets, photographic records of work, delivery notes (e.g. for when particular materials are critical to achieving the required quality), material test records etc.

## 3.7 Benchmarking Toolbox Talks

3.7.4 Toolbox Talks are commonly used as a process to communicate and refresh knowledge and understanding to the workforce of key health

- and safety processes relevant to a construction project. Toolbox Talks can however facilitate a process to communicate the requirements for the work package / ITP requirements and the evidence required to demonstrate compliance. They provide an opportunity to re-iterate the importance of quality, getting the work right and to allow operatives and trades-people to raise and address any concerns about the forthcoming work.
- 3.7.5 Prior to works commencing it is recommended that the Contractor / Sub-contractor appointed to undertake the work package or element of work, meets with the main Contractor, Designer and where appropriate any external approver, to review the specific requirements and processes. The proposed ITP should then be tailored to suit the agreed requirements.
- 3.7.6 Consideration should be given to regular liaison/collaboration meetings between the Contractor and Subcontractor(s), specifically about quality, throughout the period of the project delivery.
- 3.7.7 As well as discussing the ITP, Quality Tool Box Talks can be used to communicate key elements of the construction that are critical to providing a quality finished product. Some examples may include;



- > Brickwork type and spacing of ties, DPC and cavity tray requirements, requirements for brick reinforcement or details of brick support systems.
- Cladding type and spacing of fixings,
   EPDM requirements, air-tightness lines.
- Internal Fit Out Fire Damper Details, Acoustic Details, Fire-Stopping arrangements etc.
- > Concrete finishes
- 3.7.8 The manufacturers of key components should be invited to share their knowledge and expertise with those responsible for installing. Manufacturers are often more than willing to engage and can share vital information that may reduce the likelihood of errors or nonconformances in the installation of their products. The timing of any such engagement should be carefully planned and those responsible for either the installation or inspection should be invited to attend. These sessions may then positively inform further adaptation of the associated Inspection & Test Plans.

## 3.8 Commissioning & Demonstration

- 3.8.4 Establishing a detailed programme and plan for the 'Commissioning and Demonstration' stages of a construction contract is essential in evidencing quality and compliance with performance standards.
- 3.8.5 The Commissioning and Demonstration programme should be established early in the contract, and in some circumstances, these are required as part of the initiation Contract requirements.
- 3.8.6 All stakeholders, both internal and external should be provided with a copy of the programme in sufficient time to support any witnessing or attendances. It is beneficial for such timescales to be defined.
- 3.8.7 Progress against the programme must be communicated regularly to all key stakeholders, in particular when any change in circumstances occur that may impact on any witnessing by key representatives.
- 3.8.8 The Contractor should obtain and retain records of all witnessing representations undertaken for both their own and Employer's record purposes.

## 3.9 Completion & Handover

#### 3.9.4 Completion Definition:

It is commonplace in the industry for there to be differing opinions or misinterpretation of Completion requirements leading to unnecessary delays and potential conflicts.

Ensuring there is a collective understanding of the Completion status requirements necessary to define the contract works as complete, should be discussed and defined by such key stakeholders well in advance of any commissioning processes and the contract Completion date, and preferably during the tender stage.

### 3.9.5 Recording and Evidencing of Information:

Under the definition of the Completion status requirements, it is important that the information required to evidence compliance / Completion is similarly defined and agreed. The earlier this can be agreed in a contract the better to assist the contractor compile the necessary evidence and records.

It is recommended that regular reviews are undertaken with the parties responsible for certifying Completion, to ensure these are being documented to the required and agreed standards.



#### 3.9.6 Witnessing

A robust process for any required witnessing of works must be predetermined and agreed (recorded in the ITP). Spot checks that the witnessing process is being undertaken should also be implemented. Acceptance of someone's 'word' that a task has been undertaken cannot and should not be relied upon.

- 3.9.7 Challenges with Mechanical Electrical and Plumbing (MEP) Works
  - 3.9.7.1 It is important that any MEP systems are checked for compliance and functionality by the specialist MEP Contractor before being presented to the Main Contractor or Employer's Representatives for approval.

    Sufficient time will need to be allowed in the installation programme for this process to take place and the MEP contractor should allow the necessary supervisory and management resource to ensure that this happens.

#### 3.10 Lessons Learned

- 3.10.4 The Quality Plan should take cognisance and record any key lessons learned from other projects or experiences that may prevent such re-occurrences in the proposed contract works.
- 3.10.5 These identified lessons should not only be recorded but be clearly communicated and discussed with the project team in advance of the project works or appropriate tasks.

  A record should be kept of what the lesson learned is and how it is to be pro-actively addressed during the delivery of the project.







## 4. Communications, Reporting & Engagement

- 4.1.1 These are essential tools that the Contractor can use to facilitate the delivery of quality. These may appear straightforward and commonplace, however, it is common that a failure in these simple processes can lead to unnecessary delays, lack of understanding or misinterpretation, all of which can impact the delivery of quality in the construction process.
- 4.1.2 There are a number of commonplace reporting and communication tools which, when used correctly, can enhance the Contractor's ability to manage and evidence their delivery of quality. Examples of these tools are detailed below for consideration.

#### 4.2 Reporting

4.2.1 Unless defined under the construction contract, it is essential that the Contractor assesses the information that records and communicates their compliance with their contract obligations. The frequency of these communications must also be carefully assessed to ensure that these provide the right level of information at the right time. A Contractor's Progress Report can capture this information and:

- > Progress Against Programme
  - Evidenced with a programme mark up
- > Delays to Programme
  - Evidenced with reasons whilst identify mitigating actions / owners
- > Health & Safety
  - Demonstration of compliance against legal requirements and evidenced with any internal or external inspection reports
- Variations (either requested by the Employer or if necessary, proposed by the Contractor)
  - Dates for decisions / authorisations must be clearly recorded / documented
  - Forecast cost of all instructed and/or pending variation request, to inform the Employer of the anticipated final contract value.

- > Information Required
  - Any essential information required by the contractor from other parties, that is necessary to completed the contracted works.
  - Deadline dates must be clearly detailed
- > Statutory Matters
  - Utilities: detailing procurement / meters / connection dates / information required from the Employer
  - Planning: Status of any conditions that require to be cleanse prior to handover, including those that are the obligations of the Employer (identifying key dates)
  - Building Warrant: Status of application and approval process, identifying any key issues of concern or potential delay



### 4. Communications, Reporting & Engagement (continued)

#### > Quality

- Overview of Quality Management activities undertaken and planned, highlighting:
  - any key issues of concern or compliance
  - defects / non-conformances
  - status of samples or benchmarks
- > Commissioning & Handover
  - Clear advance notification of a Commissioning Programme, giving prior notice of any external input or witnessing required from external parties / stakeholders
  - Status update regarding the handover information required under the contract, including Operation and Maintenance Manuals, Building User Guides, records demonstrating construction quality
- Key Risks (to the delivery of the contract) highlighting the key issues and required mitigating actions where relevant

## 4.3 Records / Contract Notices

- 4.3.1 Contract Notices must always be issued in accordance with the defined contract processes to ensure that the Contractor does not incur/suffer any undue penalties or additional costs as a result of inaction.
- 4.3.2 It is essential that the Contractor, and any key personnel responsible for administering, monitoring and delivering the contract works, fully understands the obligations and processes required of them under the contract. It is common that key personnel are not aware of such processes or obligations which commonly leads to issues with the result that the contractor unduly suffers.
- 4.3.3 It is therefore essential that the Contractor's key management personnel review and share these duties and obligations with their project teams.

#### 4.4 Meetings

4.4.1 The purpose and frequency of meetings during the Construction project must be carefully assessed and determined prior to and during the contract. The meetings must be planned with a purpose to ensure that required outputs

can be achieved at the right time to support the contract. The following is an example of the differing meeting types that can assist in this process:

#### 4.4.2 **Design Team Meetings**

Purpose: to continue or record any key design input requirements including:

- > any residual design obligations
- > key design interfaces
- > sub-contractor design reviews
- > monitoring of obligations relevant to any Statutory undertakings i.e. utilities, Planning Conditions, Building Warrants
- > Variations
- > Tracking of construction issue information
- > Design compliance reviews
- > Handover outputs i.e. as-built information
- Meeting Record and actions must be clearly recorded and distributed to all key parties and participants
- > CDM and Maintenance Requirements for the completed building.



#### 4. Communications, Reporting & Engagement (continued)

Frequency: as required dependant on level of design issues to be progressed or concluded. Minimum suggested frequency: fortnightly

#### 4.4.3 **Progress Meetings**

Purpose: to record and highlight the key issues relating to the compliance and delivery of the construction contract to the key project stakeholders, in particular the Employer. Agenda should ideally follow the content of the Contractor's Progress Report (see section 4.2.1 above).

Frequency: monthly (minimum) or as required dependant on the level of issues and decisions required by the Employer.

#### 4.4.4 Quality Meetings

Purpose: to ensure that the planning, implementation, monitoring, evidencing and demonstration of the construction contract works quality is delivered. It is important that these meetings are not just about monitoring the number of snags or defects which have arisen. This is often the extent of discussions under the agenda item "Quality" at normal Progress Meetings. A dedicated quality meeting should be about looking ahead to what work is coming up, what risks to quality may arise in this work and what is to be done

to mitigate that risk. It will cover the issues, snags and defects which have been recorded but, importantly, this will be about why it happened, what has been done to remedy the issue and what steps are being taken to avoid recurrence on future work.

It is strongly recommended that a regular meeting to plan and monitor the delivery and compliance against the construction quality standards required of the contract, be coordinated and held and recorded. All key representatives who have an input into the design, planning, delivery, recording / certification, checking and demonstration of construction quality compliance should attend. For example attendees should include:

#### > Contractor

- Quality Manager
- Site Manager
- Work Package Manager relevant to contract work package/s - current and future
- Design Manager
- Sub-Contractor relevant to contract work package/s - current and future

- > Employer
  - Lead or designated contract representative
- Project Manager / Contract Administrator where externally appointed by the Employer
- > Design Consultant relevant to contract work package/s - current and future
- Clerk of Works (Fabric and Mechanical & Electrical) or any other party that is monitoring quality
- Statutory Representatives relevant to the specific construction stage, if available

Frequency: monthly (minimum) or as required dependant on the level of issues or matters to discuss. Frequency should increase in run up to Completion and capture commissioning activities.



#### 4. Communications, Reporting & Engagement (continued)

Key issues to cover / address include:

- > Quality Observations
  - Contractor Key Observations / Tracker Status
  - Design Team Reports Key
     Observations / Tracker Status
  - Clerk of Works Key Observations / Tracker Status
  - Other
- > Quality (QA) Records
- > Benchmarking / Standards
  - Current work packages
  - Look ahead ongoing & forthcoming packages - what samples, prototypes or benchmarking will be done
- > Defects/Non-Conformities
- > Lessons Learned
  - Review of any issues that may be of relevance to the contract
  - Root cause identification to allow corrective action to prevent recurrence

#### > Look Ahead

- What work will be starting in the near future, what risks are any of the parties aware of and what is being done to address these risks?
- What engagement is taking place with Sub-Contractors – specifically on the approach to quality?

#### 4.4.5 Post Contract Evaluation / Lessons Learned

Taking time to review and evaluate the key learnings from a contract, good and bad, is an essential tool in improving the delivery of quality on projects.

It is recommended that sufficient time is coordinated in advance for this meeting with all the key parties / stakeholders i.e. Employer, Contractor, Designers, Clerk of Works (or other quality monitoring personnel) etc. The review should also be held no later than 1 month following completion of the contract works and prior to the awareness and knowledge of any learning outcomes being lost.

Taking time to discuss what went wrong, why and how processes can be changed to prevent reoccurrence is essential in the 'quality improvement' journey. The approach should similarly capture what went well and the reasons why.

The outcome of the Post Contract Evaluation (also known as Post Project Review) process should thereafter be communicated and shared with each representative's organisation with the aim of sharing the findings to support the wider industry.







## 5. Key References

5.1 CQIC has published a guide for Employers/Clients for the development of their own Project Quality Plan. It provides an insight into the steps that they should take in contributing to the delivery of quality. It is complimentary to the requirement for a quality strategy and plan on the delivery side covered by this guide. It is available at:

#### Client Construction Quality Plan

The Get It Right Initiative is a group of UK construction industry experts, organisations and businesses committed to actively improving productivity, quality, sustainability, and safety in the construction sector by eliminating error. It's work compliments that of CQIC and the two organisations have developed a working relationship to pursue our common aims. More information on GIRI is available here:

#### Get It Right Initiative

within infrastructure projects using building information modelling (BIM). If we create, manage, and share information on our infrastructure projects efficiently and leverage associated technologies, the benefits will be significant across the asset lifecycle through the reduction in waste, improved delivery, and ultimately improve how we manage and maintain our assets. Use of SIMP is mandated on certain public sector projects such as the Learning Estate Investment Programme (LEIP) but is being voluntarily adopted on other projects because of the benefits it provides.

The Standard Information Management Plan

robust information management processes

(SIMP) provides a common approach to embed

#### Standard Information Management Plan

More information on SIMP is available here:



The CIOB has produced a Guide to
Construction Quality (Site Production and
Assembly) which covers in detail how
Quality Management is achieved during
the site production process, including the
requirements for ensuring quality is
managed through the supply chain.
The guide is available to buy here:

#### CIOB Guide to Construction Quality

5.5 Samples of documents used in the management of quality as referred to in this guidance are available at:

#### Sample Documents







