



RALPH T. KING & ASSOCIATES

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QUALITY MANAGEMENT POLICY AND SYSTEM

Consulting Mechanical & Electrical Engineers

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R A L P H T . K I N G & A S S O C I A T E S

Quality Management Policy and System

To provide every client with an efficient and a high quality of service the directors, management and staff are required to comply with the Company's policy and objectives with respect to the Quality Management as defined in the Quality Manual and the Operational Procedures Manual.

The Scope of the Quality System applies to the design, specification and site monitoring in respect of Building Engineering Services, comprising the Environmental, Mechanical, Electrical, Public Health and Vertical Transport Installations.

The Quality System Manual, and the systems, standards and guidelines described therein is aligned with BS EN ISO 9001: 2008 and the following procedures have been developed and implemented to date:-

Cost Estimates, Cost Control and Records.

The Company has developed a cost database which has been built up over the years to provide accurate cost estimating and forecasting. The cost database stores costs obtained from previous budget estimates, tendered costs and final accounts. The guidelines given in the Ralph T King & Associates Handbook of Project Management relate specifically to the provision of cost estimates in terms of the level of accuracy and degree of uncertainty at the various design stages.

Office Standard Design Manual

The Company utilises a number of standard design procedures for calculations which includes HevaComp, Cymap, Relux and Dialux, suites of programmes for activities such as Electrical calculations of wiring and distribution, lighting design, calculations for heat gains and losses, pipework, pump, ductwork and fan sizing. The Company believes that this method of recording calculations reduces the potential risk of human error. TAS computer based thermal modelling comfort and ventilation predictions and Lightscape natural daylighting predictions are also standard design procedures for the appropriate projects and these facilities are available to the Company through external bureaus. The Company now utilises Google Sketchup for preliminary internal and external lighting visualisation images.

Electronic Communications

The Company operates a documentation system for receiving and issuing information comprising both electronic format and paper hard copy. The electronic system is based on a central server feeding individual workstations for engineers and administration. All paperless information is filed in the same manner as the hard copy system operating within the office. All members of staff have their own individual electronic addresses. Electronic drawing receipt and issue can be by dwg, dwf or pdf format. Links to specific project based remote servers can also be incorporated into this facility.

Computer Aided Drafting (CAD)

All technical drawings are prepared on computer utilising the latest version of AutoCAD 2009 and the latest version, 2013. The layering convention is compatible with BS1192 Pt.5.

We are also introducing Autocad Revit 2013 which allows production of 3D technical drawings and to enable collaborative working with project team members, to prove integrated elements of the design in three dimensional form i.e. Architects.

Its use on any project or part thereof is assessed in detail by a senior member of staff so as to ensure that this co-ordination and design tool is used efficiently and effectively to obtain the maximum benefit to the right project. The Company however acknowledges that some projects do not require the Revit tool through lack of complexity and where the detailed co-ordinations of building and services elements is required.

Standard Specifications

The Company has a number of Specification Particular Conditions of Sub-Contract clauses which are used on its projects which have been well tried, tested and honed over in excess of 30 years to ensure that the selected Sub-Contractor fully understands what is required of him in terms of the standards of materials and workmanship and fulfils his contractual responsibilities under the contract.

Reviewing and checking the design and production information

Reviewing and checking the designs and the drawings is a very important role within the Company. Reviewing is countersigned by a Senior Staff Member.

The Company has a policy of continual improvement and setting quality objectives aligned with the framework laid down within ISO9001:2008 Standard.

To provide every Client with an efficient and high quality of service the Directors, Management and Staff are required to comply with the Company's policy and objectives with respect to the Quality Management as defined in the Quality Manual and the Operational Procedures Manual.

The Quality System will be monitored with regular reporting of the status and effectiveness by a Senior Staff Member and updating and modification of the documents as found necessary in order to achieve our objectives.