

**TECHNICAL SUPPORT ASSOCIATES  
LIMITED**

**QUALITY MANUAL**

**TO**

**BS EN ISO 9001: 2008**

**Technical Support Associates**

57-59 High Street  
Bagshot  
Surrey  
GU19 5AH

Tel: 01276 476237  
Email: [enquiries@tsaservices.co.uk](mailto:enquiries@tsaservices.co.uk)  
Website: [www.tsaservices.co.uk](http://www.tsaservices.co.uk)

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**Building Services Consulting Engineers**

- Property Health & Safety
- Facilities Management
- Electronic Record Information

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## ISO 9001 COMPARISON MATRIX

The following table lists the relevant clauses in BS EN ISO 9001:2008 and outlines the sections in the TSA Quality Manual which detail the procedures undertaken by TSA in compliance with the standard.

BS EN ISO 9001:2008		TSA Quality Manual		
Clause No	Title	Clause No	Title	Comment
4.1	General Requirements	1.2	Quality Policy Statement	
4.2	Documentation Requirements	1.3	Quality Assurance System	
4.2.3	Control of Documents			
	(a)	3.2.2	Project Checking	
	(b & c)	3.2.3	Document Issues	
	(d, e & g)	5.3	Electronic filling	
	(d, e & g)	5.4	Paper filling	
	(f)	3.2.1	TSA Specifications	
		4.2	Incoming correspondence	
		4.2.2	Electronic Correspondence	
4.2.4	Control of records	1.5	Audits, Reviews & Non-compliance Procedures,	
		6.1	Purpose, Back up &	
		6	archiving	
5.1	Management Commitment			
	(a)	1.4	Staff Training in Quality Assurance System	
	(a & b)	1.2	Quality Policy Statement	
5.1	Management Commitment	1.5	Audits, Reviews & Non-compliance Procedures	
5.1	Management Commitment	3.2	Procedures	
5.2	Customer focus	2.2 & 1.5.2		
5.3	Quality policy			
	(d)	1.4	Staff Training in Quality Assurance System	
	(a, b, c & e)	1.5	Audits, Reviews & Non-Compliance Procedure	
5.4	Planning	1.5	Audits, Reviews & Non-compliance Procedures	
5.4.1	Quality Objectives	1.6	Quality Objectives – Establishing & Monitoring	



BS EN ISO 9001:2008		TSA Quality Manual		
Clause No	Title	Clause No	Title	Comment
5.5.1	Responsibility, authority and communication	8.1	Purpose, Staff recruitment, training & appraisals	
		1.4	Staff training in quality assurance system	
		1.2	Staff responsibilities and authorities.	
5.5.2	Responsibility, authority and communication (a & b)	1.5	Audits, Reviews & Non-compliance Procedures	
		(c) 3.2	Procedures	
5.5.3	Responsibility, authority and communication	1.4	Staff Training in Quality Assurance System	
5.6.1	Management review	1.5	Audits, Reviews & Non-compliance Procedures	
5.6.2	Management review (b)	1.5	Audits, Reviews & Non-compliance Procedures	
		1.5.2	Customer Satisfaction surveys	
5.6.3	Management review (a & b)	1.5	Audits, Reviews & Non-compliance Procedures	
		(c) 3.2	Procedures	
6.1	Provision of resources (a)	1.2	Quality Policy Statement	
		(b) 1.5.2	Customer Satisfaction Surveys	
		2.2	Procedure, Enquiries relating to TSA services	
6.2.1	Human resources	8.1	Purpose, Appraisals & Training	
6.2.2	Human resources (a)	8.1	Purpose, Appraisals & Training	
		(b & c) 8.3	Appraisals & Training	
		(d) 1.4	Staff Training in Quality Assurance System	
		(e) 5.3	Electronic Filing	
6.3	Infrastructure	1.7	Infrastructure	
6.4	Work Environment	1.7	Work Environment	

BS EN ISO 9001:2008		TSA Quality Manual		
Clause No	Title	Clause No	Title	Comment
7.1	Planning of product realisation (a & b) (c & d)	3.2 3.2.2	Procedures Project Checking	
7.2.1	Customer related Process (a)  (b & c) (d)	2.2  3.2.1 3.2	Procedure, Enquiries relating to TSA services  TSA Specifications Procedures	
7.2.2	Customer related Process (a & c)  (b)	2.2  3.2.4	Procedure, Enquiries relating to TSA services  Alterations to scope of works	
7.2.3	Customer Communications	4.4	Contact Details	
7.2.3	Customer related Process (a)  (b)  (c)	4.3 4.4 2 1.5.2 1.5	Correspondence outgoing Contact Details Enquiries relating to TSA services Customer satisfaction Surveys Audits, Reviews & Non-compliance Procedures	
7.3.1	Design and development (a & c) (b)	3.2 3.2.2	Procedures Project checking	
7.3.2	Design and development (a)  (b) (c) (d)	2.2  3.2 3.2.1 6.3 2.2 3.2	Procedure, Enquiries relating to TSA services  Procedures TSA Specifications Archiving Procedure, Enquiries relating to TSA services Procedures	
7.3.3	Design and development (a & b)  (c & d)	2.2  3.2 3.2.6 3.2.1	Procedure, Enquiries relating to TSA services  Procedures Drawings TSA Specifications	

BS EN ISO 9001:2008		TSA Quality Manual		
Clause No	Title	Clause No	Title	Comment
7.3.4	Design and development (a)  (a & b)	1.5.2  3.2.2 1.5	Customer satisfaction Surveys Project Checking Audits, Reviews & Non-compliance Procedures	
7.3.5	Design and development	3.2.2 3.2.3 5.3 5.4	Project checking Document Issues Electronic filling Paper filling	
7.3.6	Design and development	3.2.2 3.2.3	Project checking Document Issues	
7.3.7	Design and development	3.2.4	Changes to scope of works	
7.4.1	Purchasing	9.3	Receipt of goods	
7.4.2	Purchasing  (a, b & c) (b)	9.2.2 8.2	Purchase orders Recruitment	
7.4.3	Purchasing	9.3	Receipt of goods	
7.5.1	Production and service provision  (a)  (b) (c) (d) (e) (f)	2.2  3.2 5.3 5.4 3.2 3.2.5 3.2.6 10.2 3.2.2 3.2.3 3.2	Procedure, Enquiries relating to TSA services  Procedures Electronic filling Paper filling Procedures Calculations Drawings Process, test equipment Project checking Document issues Procedures	
7.5.3	Production and service provision	3.2.3 4.3  5.3 5.4 6	Document issues Outgoing correspondence Electronic Filling Paper Filling Back up & Archiving	
7.5.4	Production and service provision	4.2	Incoming Correspondence	

BS EN ISO 9001:2008		TSA Quality Manual		
Clause No	Title	Clause No	Title	Comment
7.5.5	Production and service provision	3.2.3 4.3 5.3 5.4 6	Document issues Outgoing Correspondence Electronic Filing Paper Filing Back up & Archiving	
7.6	Control of monitoring and measuring equipment	10.2	Process, test equipment	
8.1	Measurement, analysis & improvement  (a) (b & c)	3.2.2 1.5	Project Checking Audits, Reviews & Non-compliance Procedures	
8.2.1	Monitoring and measurement	1.5.2	Customer Satisfaction Surveys	
8.2.2	Monitoring and measurement	1.5	Audits, Reviews & Non-compliance Procedures	
8.2.3	Monitoring and measurement	1.5	Audits, Reviews & Non-compliance Procedures	
8.2.4	Monitoring and measurement	3.2 3.2.2	Procedures Project Checking	
8.3	Control of non-conforming product	3.2.2 3.2.3	Project Checking Document Issues	
8.4	Analysis of data  (a, b, c & d)  (a) (b)	1.5 1.5.2 3.2	Audits, Reviews & Non-compliance Procedures Customer Satisfaction Surveys Procedures	
8.5.1	Improvement	1.5	Audits, Reviews & Non-compliance Procedures	
8.5.2	Improvement	1.5 1.6.1	Audits, Reviews & Non-compliance Procedures Non-Conforming Items and Corrective Actions	
8.5.3	Improvement	1.5 1.6.1 1.4	Audits, Reviews & Non-compliance Procedures Non-Conforming Items and Corrective Actions Staff Training in QA System.	

The following clauses of BS EN ISO 9001:2008 are considered to be not applicable to the activities undertaken by TSA for the reasons detailed:

Clause No	Title	Reason not applicable
7.5.2	Validation of processes for production and service provision	As a copy of every product is kept the product can always be reviewed.
7.5.1f	Control of production and service provision	Not applicable to TSA services
7.5.4	Customer Property	No physical property

## 1. TSA QUALITY PROCEDURES

### 1.1. QUALITY STATEMENT

TSA were Quality Assured via BVQI from 2002 to 2014. We still operate fully complaint procedures. We currently do not undergo annual external audits as all our work follows the procedures and the systems we have developed guarantee consistency in all our work areas.

Quality is about producing well engineered solutions in a consistent manner which provide our clients and projects with detailed information to suit the project's need.

### 1.2. TSA ACTIVITIES

Technical Support Associates (abbreviated to TSA throughout the remainder of this document) provide Engineering Services design and management within the Building Services industry covering all aspects of mechanical, electrical, health, safety and environmental services within buildings.

The main activities undertaken include Mechanical and Electrical Design, Authorising Engineer duties, Energy and Environmental services, Health & Safety advice (including surveys, audits and reviews), Facilities Management, and the design and creation of Electronic Record Information using web-based software.

All activities are coordinated by project teams within the company and utilise the knowledge and experience of TSA staff together with historic and technical information gained from previous work.

### 1.3. QUALITY POLICY STATEMENT

TSA's policy is to provide high calibre Engineering solutions to Building Services applications and achieve low energy, high quality installations which consistently satisfy our customer's needs thereby achieving sustained, profitable growth. Quality is maintained by the adoption of a Quality Assurance System that demonstrates to existing and new customers and independent auditing authorities, our commitment to quality and the competence and capabilities of the company as a whole.

All employees (whether permanent or contract staff), are made aware of, and comply with the quality procedures identified within this manual. This ensures that:

- Consistent standards are maintained within the practice maximising the capabilities and experience of the company
- An effective Quality Assurance System is maintained complying with BS EN ISO 9001: 2008
- A high level of quality is achieved which enhances TSA's reputation within the industry
- Customer satisfaction is maximised through consistency and quality of service
- Maximum use is made of computer based systems for calculations, drawings, general project work and electronic filing

To accomplish and maintain the required level of quality assurance, a senior member of staff is designated the **Quality Manager** (David Smith BSc(Hons) C.Eng FIMechE FCIBSE Tech IOSH) with full authority to implement, audit and monitor the standards in order to ensure compliance with the Quality Assurance System. Details of employee's responsibilities and authorities are contained within the TSA Company Structure diagram and the Job Descriptions, which can be found in the following directories:

- Admin/ Marketing/ Marketing Information/ TSA Growth & Structure/ TSA Structure (latest revision)
- Admin/ Staff/ Job Descriptions/ Job Descriptions

#### **1.4. QUALITY ASSURANCE SYSTEM**

This Quality Assurance system applies to all TSA activities. The Quality Manual details company policies and procedures for all design work, reports, calculations, scanning, administration and project activities undertaken by TSA.

This manual is made available to all members of staff in the form of:

- Read-only version accessible to all via the TSA LAN
- Master electronic version which is password protected and accessible only by the Quality Manager and Directors/ Associates

All Quality Assurance system-related documentation is password protected, accessible only to TSA Directors and Quality Manger.

#### **1.5. STAFF TRAINING IN QUALITY ASSURANCE SYSTEM**

These procedures constitute a formalisation of the in-house QA procedures undertaken by TSA. Formal training will be provided by the Quality Manager as part of the regular TSA staff meetings and on a one-to-one basis as required. The Quality Manager will meet with each member of staff to assess their understanding of the QA system and identify any improvements or training requirements on the following frequencies:

- Annually for those staff employed for less than three years
- Two-yearly for those staff employed for more than three years

The above will provide preventive action to eliminate causes of nonconformities and will be recorded on the QA Training Checklist for each person. Results of this checklist and training should be reported back at the Management Review meetings.

All new TSA staff members receive QA training as part of their ongoing induction.

The Quality Manager and Directors are available to answer any queries from TSA staff.

#### **1.6. AUDITS, REVIEWS AND NON-COMPLIANCE PROCEDURES**

The Quality Manager is responsible for recording oversights, changes to procedures and new procedures brought to his attention by employees and requiring amendment of the Quality Assurance System.

Management Reviews in cooperation with the Quality Manager take place every six months. The objectives of the Management Review are:

- To establish that the Quality Assurance System is achieving the expected results, continuing to conform to defined standards and functioning in accordance with the established Operating Procedures
- To expose irregularities or defects in the System; examine significant faults, wastage or loss; identify weaknesses and evaluate possible improvements
- To review the effectiveness of previous corrective actions
- To review the adequacy and suitability of the Quality Assurance System for the current and future operations of TSA
- To review organisational goals and Customer expectations
- To review any Customer complaints received, identify the cause, and recommend corrective action if required

- To review the findings of internal audits and external assessments, identify any areas of recurring problems and put in place appropriate preventive actions.
- To review the reports of non-conforming items

Internal audits of the Quality System are undertaken at least twice yearly to confirm that activities are adhering to the procedures. A comprehensive audit programme is compiled annually in advance. Should particular needs be identified requiring a corrective action, the frequency of audit may be increased at the discretion of the Quality Manager.

Audits may be undertaken either by the Quality Manager or the Directors of the Company

### **1.7. QUALITY OBJECTIVES – ESTABLISHING & MONITORING**

The following KPI's have been set as targets to establish and monitor the quality objectives:

- Maintain an above average score (good) for 85% of all customer performance feedback forms received
- Record the number of incorrect answers given by staff members on the QA training checklist. Target is a maximum of two per staff member
- Record the number of non-conformances noted on a QA project checklist for a sample number of projects. Target is a maximum of two per project
- Record the number of non-conformances noted on a QA procedures checklist. Target is a maximum of two
- Record the number of non-conformances issued during the annual BV audit. Target is a maximum of two

KPI's will be reviewed at the QA review meetings.

#### **1.7.1. Non-Conforming Items and Corrective Actions**

The evaluation, agreement and implementation of corrective actions is the responsibility of the Quality Manager.

All staff members are responsible for identifying non-conforming items. Non-conformance observations should be brought to the attention of the Quality Manager, and should be recorded, documented and subjected to timely action to ensure rectification.

Customer complaints should be passed to the Quality Manager for evaluation / action. All correspondence relating to customer complaints shall be filed on the LAN under the following directory:

- Admin/Customer Complaints

Records of internal audits carried out and non-conformances should be maintained by the Quality Manager together with the scope of audit and corrective actions taken.

The records should be analysed by the Quality Manager to identify trends, possible improvement opportunities, additional training needs, control inadequacies etc., for consideration at the Management Review meeting and inclusion into future internal audits.

#### **1.7.2. Customer Satisfaction Surveys**



TSA Management contact approximately 10% of customers each year to assess customer satisfaction with TSA performance. The findings of these surveys, where received are presented to the Management Review Meetings and an appropriate evaluation is made with the items raised.

See Appendices A & B for Performance Feedback Form and email. An abbreviated version of this may be emailed to customers to facilitate their feedback.

## **1.8. INFRASTRUCTURE AND WORK ENVIRONMENT**

From April 2015 Technical Support Associates offices are located at:

57b High Street  
Bagshot  
GU19 5AH

The office is provided with the following infrastructure/services:

- Electricity –single-phase, 230V, metered supply which terminates in a wall-mounted consumer unit.
- Telephones – the following services are provided:
- Voice line
- BT cable service for internet connection

LAN – all files are now stored using dropbox which is backed up daily onto a hard drive

Software – Appropriate software is provided to enable LAN connection and use of e-mails. The software utilised by individuals is determined by their job function and is reviewed to ensure that it is appropriate both to the individual and to the nature of the work being undertaken.

The office comprises an open plan office arrangement with workstations provided for all employees. Lighting is provided by various ceiling / wall-mounted luminaires. Small power, telephones and LAN services are provided to each workstation via wire-managed furniture. Toilet and mini-kitchen facilities are provided.

Any required changes to the work environment will be discussed at the management meetings.

## **2. ENQUIRIES RELATING TO TSA SERVICES**

### **2.1. PURPOSE**

To detail the process and procedures for providing potential customers with details including costs associated with TSA's services in a clear and concise manner.

### **2.2. PROCEDURE**

TSA receive customer enquires in a variety of ways including:

Verbal enquiries

Letters

E-mails

Detailed consultants briefings

TSA aim to provide customers with concise, easy to follow details of the services they are to provide.

Initially a Director will discuss the enquiry with the customer to ascertain the nature and extent of the work required. Reference will be made as required to the TSA website, brochures, previous projects, workload commitments, staff CVs and experience in order to satisfy the customer that TSA is able to provide the service required. If TSA cannot provide the required service the customer will be informed in an appropriate manner.

Subject to customer satisfaction and a clear definition of the brief, appropriate charge out rates / service costs will be provided to the customer together with resource details if required by the customer.

If a clear scope of work has not been provided, this will be agreed / developed with the customer either by letter, fax, or e-mail, to ensure that a concise and relevant brief is defined and available prior to works commencing.

The method employed to respond to the enquiry will depend upon the nature of the enquiry and may take a variety of formats, including fax, letter, phone call, email etc. TSA's standard cost spreadsheets may be used if appropriate; these are available on the LAN in the following directory:  
Admin/ Templates/ TSA Fee Quote.xlsx

Note: access is password protected for confidentiality reasons with access available to Directors only).

The hourly / daily rates to be used will be as agreed with the Directors. Tender enquiry responses must be checked by a Director prior to issue to the customer.

All correspondence etc associated with the tender enquiry must be stored in a new folder on the LAN in the following directory:

Admin/ Sales/ Fee Proposals/Year/ (Project Title)

If TSA are successfully awarded the commission, all correspondence is relocated to the Limited drive and a new folder created:

Limited/ (Project Title)

A Job Number will also be added as a unique project reference on the following spread sheet:

- Admin / Timesheets / Jobnos.xlsx

This process also records the Director and Project Engineer responsible for the Project.

### **2.3. POST DELIVERY ACTIVITIES**

TSA do not undertake Post Delivery Activities such as warranty provisions, maintenance services, recycling or final disposal.

## **3. PROJECT WORK**

### **3.1. PURPOSE**

To describe the overall progress of a project from confirmation of order through to completion. Reference should be made to other sections within this Quality Manual to determine procedures that occur within the project process.

### **3.2. PROCEDURES**

Confirmation that TSA have been awarded a new project may be received in a number of ways including:

- Letter
- Purchase order
- Verbal confirmation (the Project Engineer or Director should confirm the order by letter or e-mail etc.)
- E-mail
- Confirmation must be recorded either in paper form or electronically within the filing system.

A filing system will be started at project inception with all staff jointly responsible for ongoing filing and correspondence for work undertaken by themselves.

A Director will be responsible for each project and will:

Ensure that the scope of work is agreed and understood

Agree / manage resource allocation and programming of the project

Undertake ongoing project management including:

- ⇒ Monitoring statutory and regulatory requirements relating to the project
- ⇒ Design and development review
- ⇒ Project checking
- ⇒ Monitoring programme and standards of deliverables
- ⇒ Monitoring customer satisfaction
- ⇒ Ensuring that the project deliverables are submitted on time and to the agreed standard (normally TSA standards unless it is agreed to use the customer's own in-house standards)

The Project Engineer's duties are to:

Assist the Director in general project duties

Undertake calculations, designs, report drafts, drawings, surveys etc as required for the project brief

Submit work for checking by the Director

### **3.2.1. TSA Specifications**

TSA Standard Specifications are found on the LAN in the following directory:

Admin/ TSA Standards/ Specifications/ Discipline or Activity/ Relevant Specification

These form the basis of the standard specification for a project and should be modified to suit and saved under the relevant project-specific folder. Suggested modifications to TSA Standard Specifications should be raised via a TSA Director.

The Particular section of the specification is written for each specific project.

### **3.2.2. Project Checking**

Ensuring the correctness and quality of a deliverable is an ongoing function of all members of TSA. Individual staff are responsible for ensuring that deliverables are produced accurately, to the required standards and to the agreed programme. Once acceptable the deliverables will be offered to a Director for final sign off prior to issue. Non-conformities identified during the project check will be resolved by discussion between the Director and the relevant engineer.

All deliverables (reports, drawings, calculations *either in software form or on TSA Calculation sheets*) must be checked by a Director prior to issue.

### 3.2.3. Document Issues

All deliverables issued, i.e. drawings or reports & specifications must be recorded by one of the following methods as deemed appropriate by the Project Engineer:

- Covering letter / fax / e-mail
- Document issue sheet

These must show the revision details of the items issued and be stored in the project file under the relevant folder.

### 3.2.4. Alterations to the Scope of Works

Significant alterations which occur to the initial scope of works will be identified to the responsible Director. Examples include: revised architectural/ structural layouts, increased/ decreased client brief, revised design criteria, project extensions, revised equipment nominations; etc.

A revised quotation should be prepared by the responsible Director to cover the changes where necessary. Additional work should not normally commence until confirmation of acceptance has been received from the customer, unless agreed otherwise by a Director.

### 3.2.5. Calculations

Where it is necessary to undertake calculations on a project the following methods may be utilised to suit the needs of the project:

#### 3.2.5.1. Calculation Sheets

TSA utilise standard calculation sheets. These must be fully and clearly completed, checked and initialled by a Director appropriate to the relevant discipline prior to issue or implementation. Calculations should be filed in the Project File or scanned and stored on the LAN.

#### 3.2.5.2. Software

Where appropriate, calculations should be undertaken utilising TSA licensed software. Project details should include project number, TSA engineer, project description, calculation date and calculation title. A hard copy should be retained in the file which has been checked and initialled by a Director or Associate appropriate to the relevant discipline.

The following software is available:

**CYMAP Building Services Software** Heat gains, losses, U-values, condensation, duct/pipe sizing, HWS, CWS, energy acoustics, psychrometrics, lighting calculations, cable sizing

**Cadlink** Interfaces Cymap with AutoCAD

**Amtech** Cable sizing, discrimination

**AutoCAD** All versions

**Specialist software** Adobe Acrobat, JAVA, Golive5, HTML

**Office Software** Word, Excel, PowerPoint, Publisher, FrontPage, Access, Outlook, Paintshop Pro

### **3.2.6. Drawings**

TSA drawings are generally produced using CAD software. The standards adopted for the production of CAD drawings are detailed in the highlighted document on the LAN in the following directory:

Admin/ TSA standards/ TSA CAD Standards/ TSA CAD Standards.doc

This refers to all drawing templates, blocks, plot procedures and is adopted for all drawings unless the project Client uses a different procedure.

Where hand sketches are used these are treated as general correspondence.

## **4. CORRESPONDENCE**

### **4.1. PURPOSE**

To detail the procedures adopted within TSA for the control of incoming and outgoing paper and electronic correspondence.

### **4.2. INCOMING CORRESPONDENCE**

#### **4.2.1. Paper Correspondence**

All incoming correspondence (including that received by hand at meetings, e.g. drawings) should be dated to show when received. This is generally via the TSA scanning. Magazines, circulars, marketing material etc. need not be date stamped.

Any post marked "private and confidential" or similar must not be opened and must be passed directly to the relevant addressee who should date the correspondence as appropriate.

All documentation will be scanned and filed in the TSA filing structure

Incoming drawings should normally be accompanied by a drawing issue sheet from the sender which must be checked to confirm receipt and the sender informed if drawings are missing.

Customer documentation should be retained in the condition in which it was received and stored with the project file. Where such documents are not satisfactory this should be identified to the customer and a record kept within the outgoing correspondence files.

#### **4.2.2. Electronic Correspondence**

Electronic correspondence is always dated automatically and can normally be traced to author, company etc. All documents received electronically should be filed on the LAN under incoming correspondence (or incoming drawings) with no alterations to the file properties.

In addition electronic documents should be stored on the LAN.

Gmail should be used to store all relevant Project related e-mails.

### **4.3. OUTGOING CORRESPONDENCE**

All outgoing correspondence with the exception of e-mails (unless these constitute either a tender, is cost-related, is related to terms & conditions of a contract, or is of a sensitive nature etc.) must be approved by a Director prior to issue.

TSA's standard templates should be used for all letters, memos, faxes, minutes and reports. These must be set up on all TSA PCs.

Each item of correspondence must be given a descriptive filename, which must be visible on the document (the templates achieve this). The correspondence must be appropriately filed in the relevant folder within the electronic filing system.

GMail should be used to store all relevant Project related e-mails.

#### **4.3.1. Documents and Templates**

The following templates highlighted are generally used as a basis for TSA work in order to ensure consistency of style, format, contents etc. The file paths are:

- Admin/ Templates/ [Report.dot](#)
- Admin/ Templates/ [Document Issue Sheet.xlt](#)
- Admin/ Templates/ [Memo.dot](#)
- Admin/ Templates/ [Letter.dot](#)
- Admin/ Templates/ [Letter with Headers.dot](#)
- Admin/ Templates/ [Purchase Order.xlt](#)
- Admin/ Templates/ [Fax.dot](#)
- Admin/ Templates/ [TSA Pre-contract risk assessment.xlt](#)
- Admin/ Templates/ [Minutes.dot](#)
- Admin/ Templates/ [Defects List.doc](#)
- Admin/ Templates/ [Contract Instruction.dot](#)
- Admin/ Templates/ [Invoice.xlt](#)

These are copied to each PC and lap top computer and tailored to suit the individual user where appropriate. Different templates may be used where this is a requirement of a particular project.

#### **4.4. CONTACT DETAILS**

All contact details for any relevant business related person or company should be stored in the TSA directory: Admin / Addresses using a csv file which can be restored to an appropriate address system. All staff are responsible for this action. Information should ideally include the following, although certain fields can be blank if unavailable / inappropriate:

- Name
- Company
- Address
- Phone number
- Mobile number
- Fax
- Email
- Website

All staff are responsible for:  
Ensuring that their personal details are up to date

## 5. FILING

### 5.1. PURPOSE

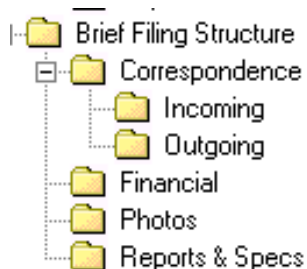
To detail the procedures adopted within TSA for both electronic and hard copy filing.

TSA aim to maximise the use of electronic filing whenever practical, supplemented by a hard copy project file if necessary. The ultimate goal is for any document to be retrievable either through electronic or paper media.

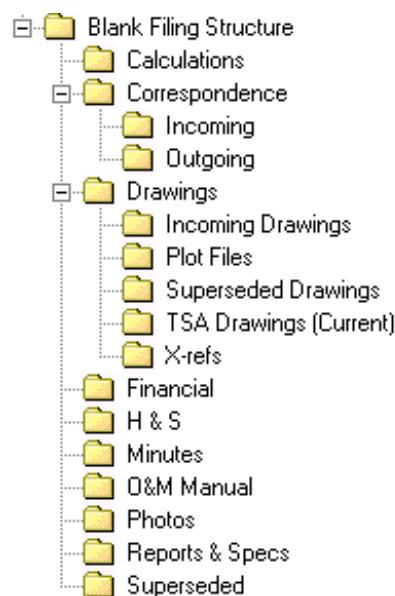
### 5.2. TSA FILING STRUCTURE

TSA use either of the following filing structures for the majority of project work:

Brief Filing Structure



Detailed Filing Structure



The above structures have been found to be applicable for most construction-orientated projects. Folders are deleted / added to suit the project needs. The filing system must reflect the needs of the project.

The filing structure as detailed above forms the basis of the filing structure for a new project. The Directory will be copied to the new project folder. Any existing documentation produced during the fee-bid stage must be cut into the relevant folder, and the folder created at fee-bid stage deleted. The majority of TSA work is filed electronically; although where paper files are used they may be divided into similar headings where appropriate or to suit the project requirements.

Blank filing structures are stored under file path:

Admin/ filing/ Blank filing structure

Admin/ filing/ Brief filing structure

### 5.3. ELECTRONIC FILING

TSA's preference is for electronic filing, which brings the benefits of accessibility, search facilities, and backup options.

All TSA filing is stored on the following LAN Directories:

**Projects** – for all project work

**Pulse** – for all electronic record information work

**Admin** – for all administration documentation including sales, marketing, timesheets, template masters, QA, library, training, computers, personnel, CVs, staff appraisals etc

**Library** – for all common information

**Archive** – for all archived projects

All filing is held on secure DROPBOX accounts giving access from any location.

Where documents can be revised, staff should ensure that they are utilising the most up-to-date information. Where referring to external documents, for example European Standards, this shall be achieved by consulting the website of the authorising organisation or by contacting the originator and determining the latest revision.

Project related e-mails should be stored by the initial receiver and copied to the appropriate LAN folder upon project completion prior to Archive. NB: copies of emails will remain in Gmail too.

#### **5.4. PAPER FILING**

Some projects require a paper project file for storage of all paper documentation relating to the project. This is opened at the discretion of the Director / Project Engineer but is not intended to house all project documentation.

The project file should be labelled with the project name and TSA job number.

The size, number and need for sub-division will depend upon the volume of paper generated on the project. The following methods may be used as determined by the Director / Project Engineer:

Single folder with documents filed in date order

Single folder with sub-divisions. Where this method is used the sub-divisions should reflect the folder structure of the electronic filing structure.

Multiple folders – these may be used where:

- ⇒ large volumes of documents cannot be stored in a single folder
- ⇒ it is appropriate to use separate folders for documents such as calculations, reports etc.
- ⇒ it is useful to have a working folder containing documents relevant to current workload
- ⇒ it is deemed necessary to store drawings in box files
- ⇒ it is deemed necessary

Where documents can be revised, staff should ensure that they are utilising the most up-to-date information.

Hard copy incoming correspondence should either be filed in the project file or scanned electronically and filed on the LAN as appropriate and the original document destroyed if required.

The need to retain hard copies of outgoing correspondence is unnecessary although can be included if convenient.



Day to day responsibility of any paper filing used is the responsibility of the Project Engineer, using administrative assistance where appropriate.

The project file should be stored in the project cupboard / filing cabinet.

Where appropriate team members may temporarily retain project folders locally to facilitate work being undertaken on the project.

### 5.4.1. Scanning of Paper Documentation

The following label may be used for scanning paper documentation to the LAN:

<b>TSA FILING</b>		Pulse	Ltd	Admin
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Projects <input type="checkbox"/>				Reports <input type="checkbox"/>
Financial <input type="checkbox"/>	Correspondence In - Out			Minutes <input type="checkbox"/>
REMAINING PATH: .....				
FILE NAME: .....				
Destroy once scanned <input type="checkbox"/>		File Paper Copy too <input type="checkbox"/>		
Do not scan <input type="checkbox"/>		Return to me <input type="checkbox"/>		

Where TSA undertake professional scanning for Pulse work, the following stamp is used:

	Mech	Elec	BW
Asset Data	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Certification	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Controls	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Descriptions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Design Criteria	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Maintenance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Manufacturers Literature	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Operating Instructions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Schedules	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Gen Info <input type="checkbox"/>	H&S <input type="checkbox"/>	Controls <input type="checkbox"/>	Env <input type="checkbox"/>
FILE NAME: .....			
DESCRIPTION: .....			

## 6. BACK-UP & ARCHIVING

### 6.1. PURPOSE

To describe the process for backing-up data stored on the TSA LAN and for archiving both electronic and paper documents / files. Records, including QA-related documentation shall be retained for a minimum of 5 years.

Once a project is finished all files are transferred from the LAN to Archive

### 6.2. BACK-UP

TSA rely heavily on electronic data hence back-up procedures are very important. The following back-ups are taken:

All working files / folders are copied daily onto an lomega hard drive via Mac time-machine

All working files / folders are copied monthly onto an lomega hard drive which is removed from the Bagshot Office and swopped with an identical unit kept in a TSA Director's house. Each of these contains the following information:

⇒ "Dated" Folder containing:

- Admin
  - Online (Deposit Boxes)
  - Projects
  - Pulse
- ⇒ 6-monthly backup copies of Project files, Pulse, Admin & Online
- ⇒ Archive

The following Archive drives are kept:

- **LAN Archive** - lomega external hard drive, retained by the server, accessible to all
- **Off Site Archive** – Kept at TSA Director's house, swopped as changes are made
- **Fire Safe Archive** – Kept in Fire Safe (older files)

The following Cloud Storage is also used linked to all current projects:

- dropbox.com

### 6.3. ARCHIVING

Once a project has been completed all email correspondence is copied into Project Name / Correspondence / Emails after which the electronic file is moved to the Archive directory on the TSA LAN.

Hard copy project files are archived at regular intervals into the attic with details of contents listed on the Archive Box Contents Form (see Appendix B), filed under file path:

Admin/ Archives / Archive Box reference

#### 6.3.1. Destruction of old Archive Files

Once the Suggested Keep Date has expired the files may be destroyed subject to the following procedure:

- TSA Director to sign the date destroyed column
- Signed copy to be scanned & filed under Admin/ Archives/*Descriptive Filename*
- Archive Box master to be altered & saved as Rev 1
- Previous copy to be filed under Admin/ Archives/*Superseded/Descriptive Filename*
- File may now be destroyed

## 7. TIMESHEETS AND CALENDARS

### 7.1. PURPOSE

To define the procedures for logging the whereabouts, activity and time-keeping of TSA staff.

### 7.2. TIMESHEETS

All TSA employees complete timesheets, which are stored on the LAN under file path:

Admin/ Timesheets/ Persons Name.xls

All employees, apart from Directors input start / finish times / duration for each project they have worked on throughout each day. The timesheet automatically retrieves data from Jobnos.xls via the job number, work code etc. to input the correct project name and activity i.e. 'typing reports, letters, correspondence etc.' or 'design, calculations, technical appraisals'. This ensures consistency when used for time-based charges. The work activity description default may be overwritten where required. Directors may use their discretion when deciding whether to keep their timesheets up to date for all activities.

### **7.3. CALENDARS**

Each employee use Google Calendars with shared access to all other staff. All staff are responsible for ensuring that meetings, holidays, appointments and visits are recorded on their calendar, and that the information is available to other relevant members of staff.

All staff have view access to all diaries, although Directors and Secretaries also have write access.

## **8. STAFF RECRUITMENT, TRAINING & APPRAISALS**

### **8.1. PURPOSE**

To outline the methods adopted by TSA for the recruitment of new staff, their training and ongoing appraisals.

TSA ensure that all personnel are competent, trained and experienced to the extent necessary to undertake their assigned activities and responsibilities effectively and safely and in accordance with the relevant TSA Job Description (refer to TSA Admin/staff/job descriptions/-). Staff are recruited according to technical skill, experience and educational qualifications relative to their duties.

### **8.2. RECRUITMENT**

Where it is necessary to recruit new staff the following methods may be used:

Recruitment of known person

Use of recruitment agency

Advertising in trade journals

Advertise via TSA Website

Recommendations

Directors generally will agree upon an appropriate shortlist of candidates for interview and the required number of attendees at interviews. Final selection, package, terms & conditions will be agreed by the Directors and two copies of an employment contract will be issued for signature by both parties.

### **8.3. APPRAISALS & TRAINING**

Formal staff appraisals take place annually, and are undertaken by a Director. Staff are requested to complete a Self-Appraisal form which is used as a basis for discussion during the appraisal meeting.

Training requirements and any vocational tasks are identified during the appraisal.

During the first two years of employment an interim six-monthly informal meeting is normally held between the employee and Directors to review progress with the issues raised during the annual review.

## **9. PURCHASING**

### **9.1. PURPOSE**

To define the procedure within TSA for the purchase of products.

### **9.2. PURCHASING PROCEDURE**

TSA purchase various products from a number of suppliers. In all cases verbal authority is required from a Director prior to an order being placed. The following purchasing methods may be used.

#### **9.2.1. Supplier Accounts**

TSA have a number of accounts set up with various suppliers. The method of placing an order is normally via the telephone quoting the relevant account number. Details of each supplier can be found in TSA Addresses including names, phone numbers, the TSA account number and any discount agreements held.

Correspondence with these suppliers is stored in the appropriate section of the filing structure file path:

Admin/ Purchases/ Correspondence

#### **9.2.2. Purchase Orders**

Where required a purchase order can be raised to place an order for a product. TSA purchase order templates are stored on each PC and are filled out by the person making the order. Each purchase order is given a unique number as follows:

**PO\_Year\_Consecutive number**

All Purchase Orders are filed under file path:

Admin/ Purchases/ Purchase Orders/(Year Folder) / FileName.xls

Electronic copies of the purchase order must be filed on the LAN in the appropriate folder as above. A Director must approve all purchase orders prior to the order being placed.

#### **9.2.3. Petty Cash**

Small products may be purchased and paid for out of petty cash. Receipts or sales vouchers are required to be provided for all purchases with each one given a unique consecutive number. A running total of the petty cash balance for each financial year, and a record of the unique consecutive numbers are stored electronically on the LAN under file path:

Admin/ Finances / Petty Cash (Year Folder) / FileName.xls

## **9.3. RECEIPT OF GOODS**

Generally all goods received by delivery van/ bike/pedestrian postman will be accepted by a TSA member of staff in accordance with the delivery company requirements.

Copies of the goods receipt are held until the goods have been checked against the order.

Once confirmed the goods receipt may be destroyed after receipt of the relevant invoice. Any shortfalls or errors must be reported A.S.A.P. to the supplier and the goods receipt retained until the error has been rectified.

## **10. TEST EQUIPMENT**

### **10.1. PURPOSE**

To detail the process used by TSA to manage the use of test equipment.

### **10.2. PROCESS**

TSA hold various items of test equipment used for M&E building services. A schedule of test equipment is maintained on the LAN under file path:

Admin/ Equipment/Schedule of Test Equipment

Instruction sheets and calibration certificates are scanned and stored electronically within the above Directory.

Test equipment is stored in a dedicated filing cabinet drawer.

Where calibration is necessary a note is included on the schedule of test equipment spreadsheet. Directors will review the spreadsheet at regular intervals and arrange for re-calibration as necessary.

Self-adhesive "Not Calibrated" labels are fitted to all relevant test/measuring equipment to enable the calibration status to be determined.

# 11. APPENDICES

## 11.1. APPENDIX A - PERFORMANCE FEEDBACK FORM

As part of the TSA quality procedures in accordance with BS EN ISO 9001:2008 regular feedback is requested from our Clients in order to assess TSA performance and evaluate where opportunities for improvements exist.

We would be grateful to receive your feedback via the following questionnaire:

Project	Nature & location of work

### Performance Feedback

Please tick in box ↘	Excellent	Good	Average	Adequate	Poor
Adequacy of resources provided					
Clarity of Communications & written documents					
Clarity of cost control (if part of TSA brief)					
Co-operation with Client & Team					
Experience & Building Services knowledge					
Fees competitiveness (if tested) & value					
Helpfulness of staff					
Innovation of options considered					
IT Systems used / documentation control					
Practicality of options proposed					
Programme adherence & control					
Project expectations met?					
Quality of drawings					
Quality of Inspections / Investigations					
Quality of reports and technical analysis					
Quality of Site Control					
Quality of specification and data sheets					
Technical ability of staff					
Will you use TSA again?	Definitely		<input type="checkbox"/>	Unlikely	<input type="checkbox"/>
	Already using TSA		<input type="checkbox"/>	No	<input type="checkbox"/>
	Yes, if the need arose		<input type="checkbox"/>		
Would you recommend TSA to others?	Definitely		<input type="checkbox"/>	Reservedly	<input type="checkbox"/>
	Probably		<input type="checkbox"/>	No	<input type="checkbox"/>

### Other Comments

.....

.....

Reference completed by:-

Signed..... Name .....

Company ..... Date.....

.....

**Please return to:**

Technical Support Associates,  
Brookwood House, 2B West Street  
Ewell, Surrey KT17 1UU

*Or alternatively, via*

*Fax* 020 8569 1166

*Email* david.smith@tsaservices.co.uk

**11.2. APPENDIX B - PERFORMANCE FEEDBACK EMAIL**

Note: TSA to fill-in all asterisks below

Dear \*\*\*

As part of the TSA quality procedures in accordance with BS EN ISO 9001:2008 we would be grateful to receive your feedback via the below questionnaire for the following project:

\*\*\*\*\*

Please score the following services using the following guide: 5 (very good), 4 (good), 3 (average), 2 (below average), 1 (poor) or put NA where not applicable.

Allocation of Resources:  
Compliance with Brief:  
Cost Control:  
Adherence to Programme:  
Co-operation with Client/Others:  
Quality of Performance & Results:  
Technical Ability:  
Quality of Reports:  
Quality of Inspections/Investigations:  
IT Ability:  
Communications:  
Helpfulness:

Bearing in mind the above would you commission TSA again? Yes / No

If 'No' please give details:

Any Other Comments:

### 11.3. APPENDIX C - ARCHIVE BOX CONTENTS (PAPER DOCUMENTATION)

**ARCHIVE BOX No:** .....

**DATE ARCHIVED:** .....

JOB NO.	PROJECT	DESCRIPTION	SUGGESTED KEEP DATE	DATE DESTROYED

To be filed under file path:  
Admin/ Archives/ (Archive Box no.)

NB: TSA Director to sign and date destroyed column