



GETTING STARTED



Who do I need to work with?

Basic –

1. Architect or Architectural Designer
2. Structural Engineer

Might need –

3. Planning Consultant
4. QS
5. Heating Engineer
6. Project Manager
7. Landscape, lighting or interior designers
8. Principle Designer



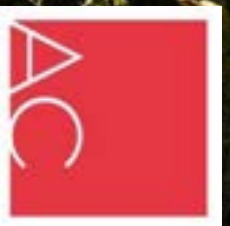
Design process overview -

Stages

1. Initial Design
2. Planning Application
3. Building Regulations or Warrant
4. Production Drawings
5. On site
6. CDM

What is critical throughout these stages?

1. Your involvement, **its your home not your design teams**
2. Checking that you can afford it!
3. You must love the design before you proceed through the stages
4. Engage with your neighbours and the planners as soon as you can
5. Communication with your consultants



Benefits of early engagement -

1. Site suitability
2. Building orientation/ siting
3. Refinement of brief
4. Consideration of building envelope
5. Integration of systems
6. Developing a relationship





THE DESIGN PROCESS





The design process starts with YOU.

Allan Corfield Architects
The Self Build Experts

What is a Brief and what is it used for?

PROJECT BRIEF - from client meeting Friday 18 September 2015

PRESENT - Keira Proctor (Client - KP)
Alan Proctor (Client - AP)
1. Your brief sets out all of the important requirements for your project

Architectural Style External - A mixture of old and new features
Use timber, render and stone as main materials
Loss of walling, grey window frames
aluminum or alu-clad
Built around courtyard
Potential for mono-pitched roof or flat roof
Maybe a curved section of wall
Must work with existing stone garden walls
2. It is created by you prior to engaging with your design team

Architectural Style Internal - Contemporary flow of spaces
Sunken living room
Large feature double height entrance atrium
High ceilings and large volumes throughout
Stone floor tiles or hardwood downstairs
Carpet upstairs (not in en-suites)
Large windows and bi-fold out to garden
3. You should use it to obtain accurate fee proposals from your design team

4. It is an evolving document, throughout the life of project

Ground Floor Accommodation -
Linked double garage, with work space
Large utility room, with laundry shoot
Plant room for all of the heating & controls
Large entrance atrium with feature stairs
Sunken living room with fireplace



First Floor Accommodation -

Master suite room, with en-suite bathroom, large his & hers walk-in wardrobe (approx. 3-5m storage each all hangers)
Balcony from master suite
Second living room from master suite
2 additional double bedrooms, sharing 1 en-suite
Family bathroom
Home Office (could be on GF)
Views into walled garden are important
Window seats
Double height volumes (potential down to GF)

Landscaping -

Mixture of hard & soft landscaping
Focused around the existing walled garden
New formal entrance through trees on private access track
Courtyard is key

Systems -

Mains or bottled gas supply
Heating UFH on all of Ground Floor and wet rooms on First Floor
MVHR system
Central Vac system
Whole house control system (through IOS)
Aga in kitchen, if required?

Budget -

Client to confirm?

Timeframe -

Start immediately on designs, start on site 2016. Approx 12-16 month build schedule

Wishes -

Sunken wine cellar
Trash shoot and laundry shoot



What is included in your Brief?

1. Basic room information & room sizes
2. How the building flows
3. Architectural Style
4. Is a certain view or orientation important?
5. Energy Performance & Heating Strategy
6. What is your role (be the best self builder you can)
7. Budget & Timescales
8. Why





Provide additional information

1. Sketches

2. Sketch-up models

3. Lego or physical models

4. Pinterest Boards



GETTING THE RIGHT HELP





Portfolio of works





Experience





Ability to listen





Chemistry and trust



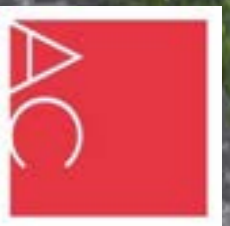


Ability to visualise



Top tips on appointing your design team

1. Interview each profession required, **ask for references** and look into previous work.
2. Provide your **detailed brief** to anyone you require a quote from.
3. Obtain **written quotes** & ensure they are **fixed fees** – don't go for % of construction cost quotes!
5. Speak to professionals who regularly handle your type of project – **Self Build specialists** can give you the best advice! These professionals will be part of your life for at least 18 months, so **you need a good relationship too!**
6. Don't fight costs down **too much**; you want a good service – they are a business after all!
7. If the relationship turns sour, **be aware of your options for parting ways!**

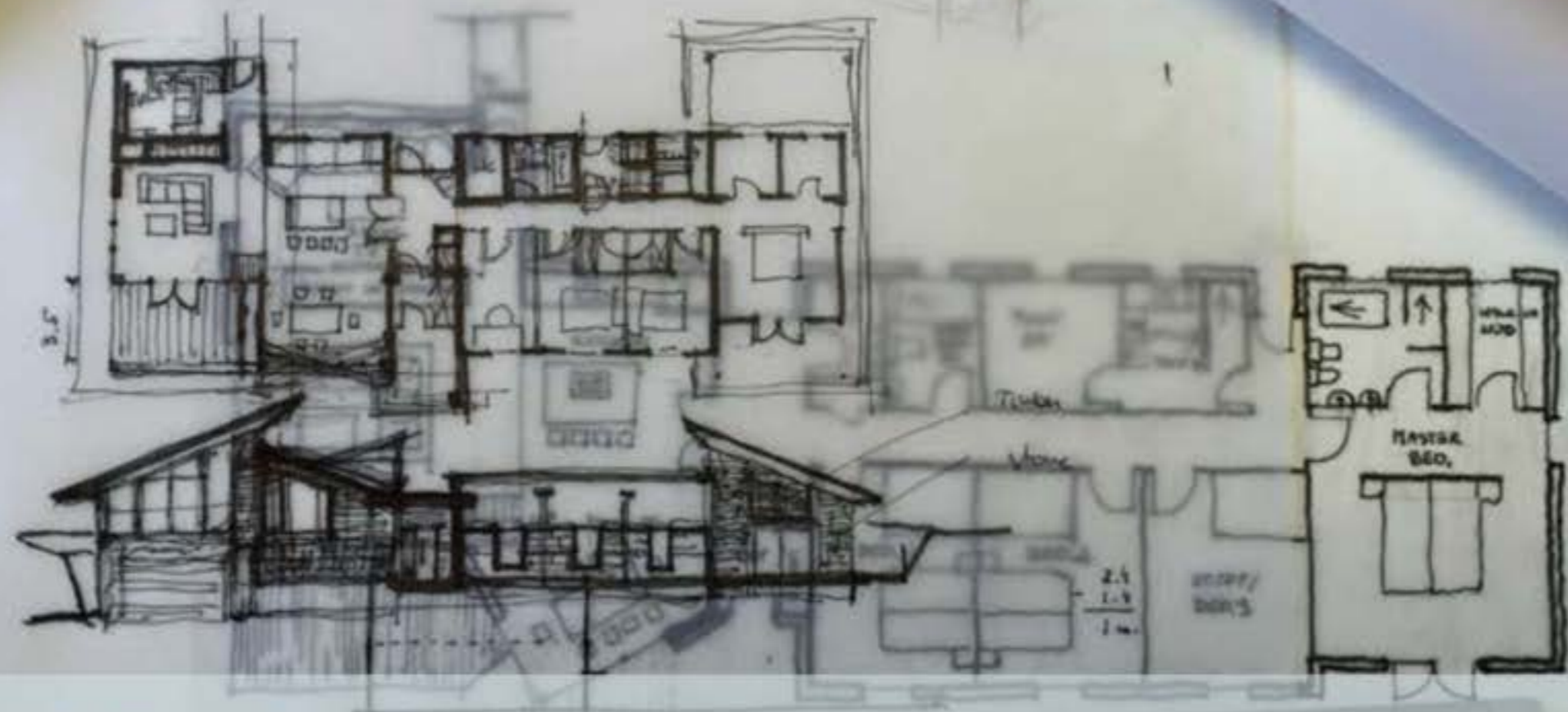




DESIGNING YOUR DREAM



1. Initial Design



Step by step guide -

1. Review Project Brief
2. Complete an initial project program / timeline
3. Complete topographical survey
4. Complete Sketch Designs
5. Client Review

Step by step guide -

6. Work up 2D drawings and potentially 3D models
7. Client Review
8. Final revisions to suitable design **or start design process again**
9. Potential for initial PHPP calculation on frozen design
10. Initial Cost check with QS or contractor
11. Pre-application enquiry with Planning team

OUTCOMES – YOU MUST LOVE THE DESIGN
TIMESCALES – 4 to 8 WEEKS





2. Planning Application



DESIGN AND ACCESS STATEMENT

REPLACEMENT DWELLING –
FAIRWAYS, CRANMORE DRIVE, STOWGATE
DEE **Step by step guide -**



Allan Corfield Architects
Custom & SelfBuild Experts

1. Review any relevant Planning Policies including Greenbelt, Plot Lands, P80 etc
2. Update drawings with the required planning information, materials etc
3. Appoint any other consultants required for special planning policies
4. Complete Design & Access Statement
5. Client Review



Step by step guide -

6. Complete rendered images and photomontages
7. Client Review
8. Finalise submission via online portal
9. Update client on application progress; receipt / neighbor notification / consultee response / planner review
10. Potential for Planning Committee
11. Decision

OUTCOMES – OBTAIN PLANNING
TIMESCALES – 4 & 12+ WEEKS



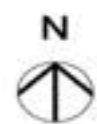
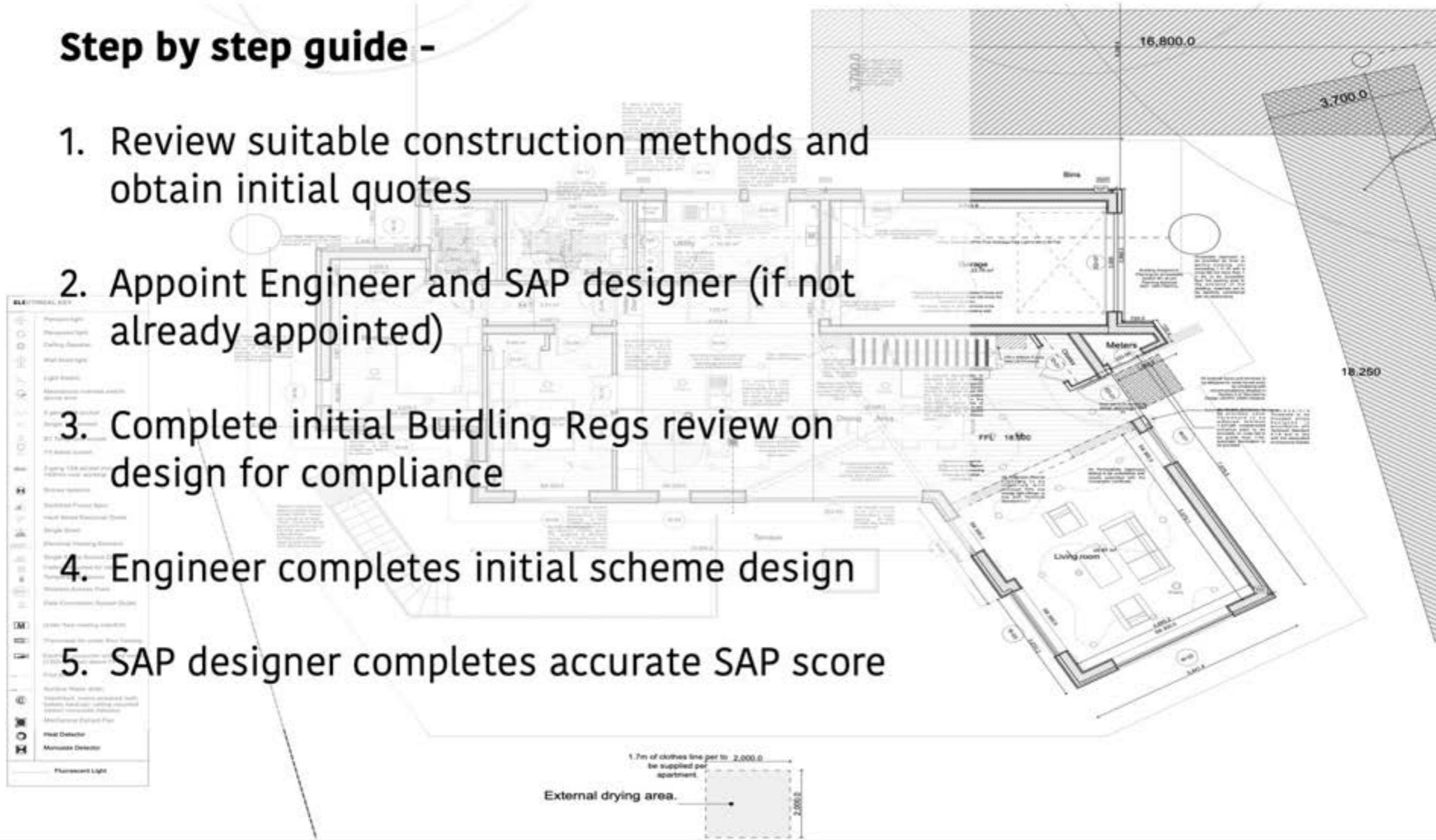


3. Building Regulations



Step by step guide -

1. Review suitable construction methods and obtain initial quotes
2. Appoint Engineer and SAP designer (if not already appointed)
3. Complete initial Building Regs review on design for compliance
4. Engineer completes initial scheme design
5. SAP designer completes accurate SAP score



All dimensions to be confirmed on site prior to construction

All new works, products and processes are to be in accordance with the relevant British Standards and manufacturers' guidance.

A smoke alarm in the principal habitable room should be sited such that no point in the room is more than 7.0M from the nearest smoke alarm.

In the case of circulation areas, no point within the circulation space should be sited more than 7.0M from the nearest smoke alarm.

No point in the kitchen should be more than 5.0M from the nearest heat detector.

Smoke Alarms should be sited no more than 7M from the door to a living room or kitchen and no more than 3M from every bedroom door.

Confirmation of completion and validation of any environmental remedial measures are to be submitted in a timely manner to allow for covering, prior to the submission of completion certificate, if applicable.

All fixed heating systems shall be capable of maintaining a temperature of at least 21°C in at least 1 apartment and 18°C elsewhere when the outside temperature is minus 1°C.

Electrical installation should be designed, constructed, installed and tested in accordance with the requirements of BS 7671:2008, as amended and certified only by a person or company having membership to S.E.C.I.C.T or N.I.C.E.I.C. or similar Electrical schemes recognised by The Local Authority.

As Permitted (lightest) testing to be undertaken and results submitted with completion submission.

Contact Local Authority Water Board to confirm the drainage connection to the existing system is granted prior to installation.

Date	By	Description	Status
01.08.18	JTB	Final report added	0
05.07.18	000	Final Report	0
28.06.18	000	Client Comments	0
07.06.18	000	Client Comments	0
05.06.18	000	Client Comments	0
04.06.18	000	Client Comments	0

AC Allan Corfield Architects

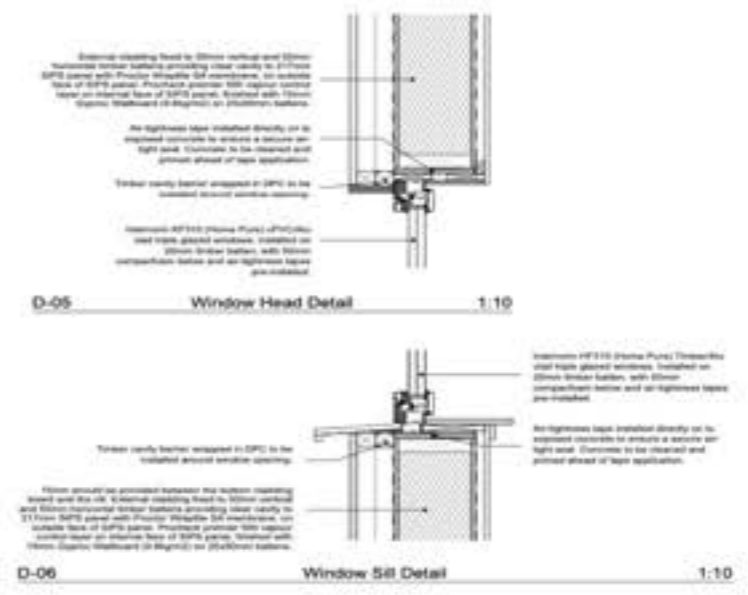
Mr & Mrs A. Bullivant

83 Pritchard Road

Step by step guide -

- 6. Client and design team review
- 7. Cost review with Contractor or QS
- 8. Complete detailed compliance specification
- 9. Finalise submission and lodge with either Local authority or Private Certifier
- 10. Review and deal with any queries or changes
- 11. Deal with any Planning Conditions

OUTCOMES – OBTAIN BUILDING APPROVAL
TIMESCALES – 6 & 8 WEEKS



ALL DIMENSIONS TO BE CONFIRMED ON SITE PRIOR TO CONSTRUCTION

All new works, products and processes are to be in accordance with the relevant British Standards and manufacturers' guidance

A smoke alarm in the principal habitable room should be wired such that no point in the room is more than 7.5M from the nearest smoke alarm

In the case of circulation areas, no point within the circulation space should be more than 7.5M from the nearest smoke alarm

No point in the kitchen should be more than 5.5M from the nearest heat detector

Smoke Alarms should be wired no more than 7M from the door to a living room or kitchen and no more than 5M from every bedroom door

Confirmation of completion and installation of any environmental remedial measures are to be submitted in a timely manner to allow for assessment prior to the submission of completion certificates, if applicable

All heat heating systems shall be designed, constructed, installed and tested in accordance with the recommendations of BS 7671:2008, as amended and certified only by a person or company having membership to S.S.L.E.C.T or N.C.S.I.C or similar Electrical schemes recognised by the Local Authority

Air Permeability (tightness) testing to be undertaken and results submitted with completion submission

Contact Local Authority Water Board to confirm the drainage connection to the existing system is granted prior to installation

21.08.19	AC	Project 2017 Approved	B
21.08.19	JCS	Design and Layout	A
21.08.19	AC	Design and Layout	A

AC Alan Curfield Architects
MR & Mrs A Sullivan
60 Priestsfield Road

www.alancurfield.co.uk



4. Production Information



ID	May 2019	June 2019	July 2019	August 2019	September 2019	October 2019	November 2019	December 2019	January 2020	February 2020	March 2020	April 2020	May 2020	June 2020	July 2020	August 2020	September 2020	October 2020	November 2020	December 2020
----	----------	-----------	-----------	-------------	----------------	--------------	---------------	---------------	--------------	---------------	------------	------------	----------	-----------	-----------	-------------	----------------	--------------	---------------	---------------

DRAFT Step by step guide -

1. Review procurement route; Self build / Project Managed / Main Contractor
2. Review your CDM roles as a client - Appoint a Principle Designer & Contractor
3. Prepare individual packages of drawings & information depending on the route
4. If Self build provide the following -
 1. Groundworks package
 2. Kit package
 3. Window & Door schedules
 4. External Cladding
 5. Roof
 6. Heating & Plumbing
 7. Joiner etc

Stage 1 Concept Design

Review previous planning apps and new Appraisal

Prepare initial option 1 - 2D floor plans

Client review

Alternative to preferred option - 2D floor plans

Prepare 3D model of site topography

Work up preferred option in 3D, plans, sections & elevations

Alternative to preferred option

Cost Review by QS

Stage 2 Planning Submission

Add in planning information to Concept drawings

SAP Calculations & Renewable Statement

Work up draft Design & Access Statement (DAS)

Completion of Rendered images for planning application

Planning Consultant to complete draft statement

Client review

Final amendments & Completion of planning drawings & DAS

Planning Consultant to lodge Planning Application

Planning Application process



Step by step guide –

6. Work through all major construction details
7. If you are creating an airtight energy efficient house then suitable details need to be worked out to limit cold bridging and repeated cold bridging
8. Potentially NBS and Bills of Quantities
9. Tender the packages, review and appoint
10. Obtain all required insurance
11. STOP and make sure you have everything in-place before you start on site.

OUTCOMES – HAVE ALL INFORMATION

TIMESCALES – 6 WEEKS



On site -

1. Before you start make sure you discharge any planning or regs conditions. Also put in place any warranty or insurance policies
2. What procedures do you have agreed for managing quality on site
3. Every trade that comes on site needs to know about airtightness
4. If you are using inexperienced trades then consider Passive House Toolbox talks, at key stages –
 1. Kit sign off
 2. Window fitting
 3. Airtightness layer (VCL)
 4. Pre airtest
5. **Tape everything**
6. Any onsite changes to be run passed the design team

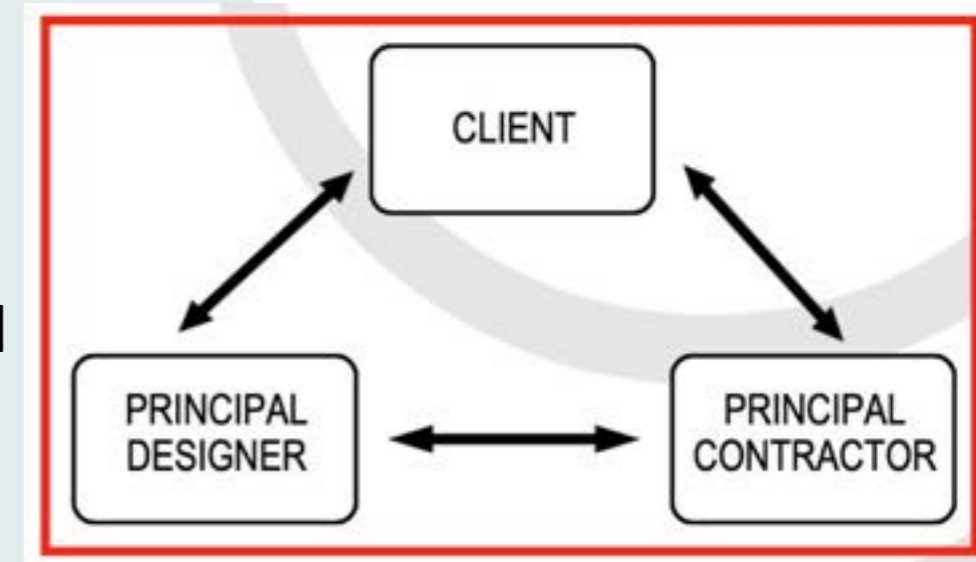


CDM 2015-

The **Client** has overall responsibility for the successful management of the project and is supported by the **Principal Designer** and **Principal Contractor** in different phases of the project.

The Principle Designer will:-

1. Provide pre-construction information to appointed designers and Principal Contractor
2. Assist the client in provision of pre-construction information
3. Gather information for the Health and Safety File
4. Liaise with the Principal Contractor
5. Update to CDM Matrix where design work is carried out after the construction phase has commenced





Structural Design Process

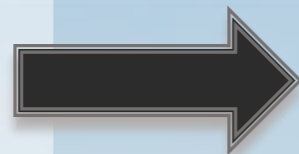


Allan Corfield
STRUCTURES

PROJECT STAGES

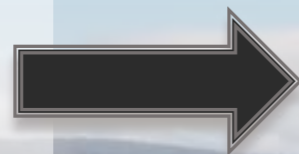
ROLE OF STRUCTURAL ENGINEER

1. Initial Design



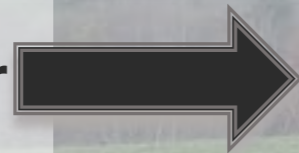
1. Preliminary desk top evaluation of site and Site Investigation

2. Planning Application



2. Early design review with Architect and Client

3. Building Regulations or Warrant



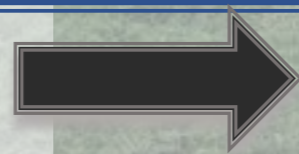
3. Structural design and drawings for Building Warrant/Regs.

4. Production Drawings



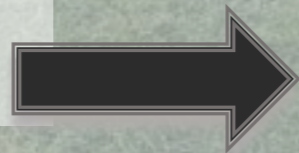
4. Design and/or review of Third-Party design elements

5. On Site



5. Structural support and additional visits

6. CDM



6. To Identify any site specific hazards

TRADITIONAL
STRUCTURAL
ENGINEERING SCOPE

ACS INCREASED STRUCTURAL ENGINEERING
SCOPE



STAGE 1: INITIAL DESIGN



5-27 Mark Napier, Bishop
SITE INVESTIGATION SPECIFICATION SUMMARY REV A

LOCATION: FIVE ELMS, STUMPS LANE, BOSHAM, WEST SUSSEX, PO18 9QJ

SITE SUMMARY

SITE IS LOCATED IN COASTAL VILLAGE OF BOSHAM WITHIN THE CHICHESTER HARBOUR AREA OF NATURAL BEAUTY

2 NO EXISTING DWELLINGS (SUBJECT TO PROPOSED DEMOLITION)

SITE IS FLAT, RANGING BETWEEN 2.2M TO 2.5M A.O.D.

SITE HAS BEEN SUBJECT TO HISTORICAL FLOODING. FURTHER WORK SHOULD BE MADE TO CEC FLOOD RISK ASSESSMENT DEC 2002

PROPOSED FFL - 4.8m BASED ON RECOMMENDATION OF FLOOD RISK ASSESSMENT

ON REVIEW OF BRITISH GEOLOGICAL SURVEY MAP RECORDS, THE SITE IS ANTICIPATED AS BEING UNDERLAIN BY SILTY CLAY OVER CHALK. BOREHOLE RECORDS IN CLOSE PROXIMITY TO SITE INDICATE CHALK STRATA AT APPROX. 2m DEEP

COAL AUTHORITY RECORDS INDICATE THAT THE SITE IS OFF THE COASTLINE

RADON RISK REPORT PURCHASED AND CONFIRMED THAT THE PROPERTY IS NOT IN A RADON AFFECTED AREA - FULFILL

ANTICIPATED SCOPE OF WORKS (SUBJECT TO RECOMMENDATIONS FROM SPECIALIST CONSULTANTS IN ACCORDANCE WITH BS8102, BS5400 AND BS5400:2) INCLUDES: CONSTRUCTION OF FOUNDATION WALLS AND MONITORING STANDPIPES

PHASE 1

DESKTOP STUDY TO SOURCE REVIEW AVAILABLE RECORDS AND ASSESS RISKS INCLUDING A QUANTITATIVE RADON HEALTH RISK ASSESSMENT AND DETERMINE NECESSARY GROUND INVESTIGATION, LAB TESTING AND MONITORING REQUIREMENTS

PHASE 2

INTRUSIVE INVESTIGATION UTILISING MACHINE OPERATED TRAP PILE, ROTARY WINDOW SAMPLE BOREHOLES TO DETERMINE STRATA MAKE UP

STANDARD PENETRATION TESTS (SPT), CALIFORNIA BEARING RATIO TESTS (CBR), ASSET PERMEABILITY TESTING TO BE PROVIDED IN ACCORDANCE WITH PHASE 1 RECOMMENDATIONS. HISTORY BOREHOLES TO OBTAIN CORE SAMPLES OF BEDROCK AND INSTALL GAS AND GROUND WATER MONITORING STANDPIPES

DESIGN SUPPLY CLASS AND AGE OF CONCRETION TO BE DETERMINED DETERMINE FOUNDATION PROVISION FOR BOTH EXISTING PROPERTIES SUBJECT TO PROPOSED DEMOLITION TO BE CONFIRMED BY TRAIL, HT INSPECTION

Source of Flooding (according to the development data)	Flood Risk	Mitigation Comments
Overland Flow	High	The site is located within Flood Zone 1a. The proposal is for "replacement dwelling", and involves no increase in building footprint, and no intensification of site usage. In line with the latter (2) (c), it is concluded that Sequential and Cumulative effects should not apply. The proposal will consider suitable flood protection measures to mitigate against future risk flooding in the area: <ul style="list-style-type: none">2.7m high retaining wall within the dwelling;1.2m high Early Flood Warning System; andFlood resistant and resilient measures. Separation of 1.5m high retaining wall between site and the area.
Groundwater	High	The site is considered to be located in an area vulnerable to groundwater flooding with historical occurrences of surface water flooding incidents. Mitigation measures include raised floor levels and flood resistant and resilient measures.
Surface Water	Low	The proposal will not increase floor area within the site. Use of green roof will reduce discharge into the watercourse.

The Coal Authority

BGS British Geological Survey

SEPA Scottish Environment Protection Agency

EXTRACT FROM MM-EC JUNE 2022 REPORT TRIAL PIT #001 AND #002 FINDINGS

ACIS REVIEW AND SUMMARY OF MM-EC JUNE 2022 REPORT BY DR

SITE HISTORY

EXISTING DWELLINGS CIRCA 1982

EXISTING EXTENSION TO THE SE CIRCA 1987

DE FACTO GARAGE CIRCA 1980

SAND PIT APPROX. 30m NE OF SITE, DIS-USED CIRCA 1980

REFUSED CIRCA 1980 - LANDFILL HIGH PAPER, WOOD, TIN AND RUBBLE

UNDISTURBED SAND & GRAVEL DEPOSITS UNDERLAIN BY LOOSE MEDIUM DENSE SILTY SAND. VARYING BEARING STRENGTH ALLOWABLE RANGES FROM 30-200kN/m². SUITABLE BEARING MAY BE AT DEPTH (APPROX. 2m). REFER TO SECTION REVIEW ALLOW BSHW CONSERVATIVELY ADOPTED FOR FOUNDATION DESIGN

ALLOWABLE CONCENTRATIONS OF LEAD marginally EXCEEDED OF 0.05% (3.0m TO 0.5m) REPORT ADVISES RISK CONSIDERED LOW

GAS MONITORING: C51-THE REPORT NO FURTHER GAS PROTECTION REQUIRED

AGGRESSIVE ENVIRONMENT FOR CONCRETE CLASS: AC1 TYPICAL REINFORCEMENT COVER AND CONCRETE STRENGTH SPECIFICATION APPLICABLE

NO RADON RISK IDENTIFIED

SITE ADVISED AS NOT WITHIN A FLOOD RISK AREA

SITE CONSIDERED MINERALLY STABLE. NO RECORDED SANDBORINGS RECORDED ON OR WITHIN CLOSE PROXIMITY OF SITE

GROUND WATER: SLIGHT AGGRESSION ANTICIPATED AT DEEPER LEVELS. NO ADDITIONAL MEASURES ANTICIPATED FOR EXCAVATIONS

GROUND ADVISED AS SUITABLE FOR SOAKAWAY DRAINAGE (T VALVE 3-15M/25mm)

NOTE: ASBESTOS SURVEY, DEMOLITION AND TEMPORARY WORKS BY OTHERS



DENOTES FLOOR JOIST
 (i) SOLID TIMBER JOISTS (45 x 195 C24 @ 600mm c/c)
 (ii) PS 12 304 x 97 @ 600mm c/c
 (iii) PS 16 421 x 122 @ 600mm c/c



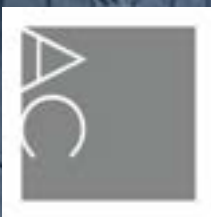
AN AS PROPOSED

- ## EARLY STRUCTURAL DESIGN REVIEW
- Different perspective
 - Structural zones identified
 - Transfer structure and column Locations
 - Early identification of value engineering opportunities



ARCHITECT AND ENGINEER

- Co-ordinated and collaborative approach
- Proven working relationship
- Established preferred detailing
- Effective communication
- Previous projects with your specialist manufacturer?
- Passive house detailing experience



ADVANTAGES OF PROJECT ENGINEER BEING SPECIALIST ENGINEER

- **Involved in your project from an earlier stage**
- **Design assumptions adopted**
- **Preliminary costing more accurate**
- **Loading for foundation design confirmed earlier**
- **Preferred detailing and specifications known**
- **Early co-ordination**
- **Streamlines design process**



Costs



Typical costs –

Based on an average self-build, on a serviced site -

1. You should budget for approx 10-12% of the actual project costs going on the basic professional fees
2. Chartered Architects costs 7-9% of total costs
3. Structural Engineers costs 1.5-2% of total costs
4. Planning Application fee of £600
5. Full plans Building Regs fee £1,200 - £4,000
6. SAP & EPC costs of approx £250 - £500
7. Topographical survey £400 - £1,200

Additional costs –

These are regularly required -

1. Soil Investigation £1,000 - £2,500
2. Arborist report £600 - £800
3. Ecological report £400 - £800
4. Floodrisk assessment £800 - £1,600
5. Planning Consultant £600 - £2,000
6. M & E consultant £500 - £1,000
7. Landscape, interior or lighting designer £600 - £2,000