

# DRAWING ISSUE RECORD

Project No: 307926  
Project: Double Garage and First Floor Extension  
Client: Stonebank, 2 Rodmell Avenue Saldean East Sussex  
Date: 15/06/91 85523



Recipient	Organisation
Penny Stonebank	Client
Tina Stonebank	Client
Andy Wright	Client Liason
	Building Control
Paul Earp	Planning Officer. Brighton and Hove Planning Authority

No of Copies (number for hard, E for electronic)												
E	E	E	E	E	E							
E	E	E	E	E	E							
E	E	E	E	E	E	1						
					E							
E												

## ISSUED FOR TENDER

D	22	27	29	13	05	10						
M	03	03	04	05	06	06						
Y	15	15	15	15	15	15						

Drawing No.	Drawing Title
-------------	---------------

Site Information	
307926-A-000	Existing Satellite Location Plan
307926-A-001	Existing Location & Block Plan
307926-A-002	Existing Site Plan
307926-A-010	Proposed Location, Block and Site Plan
307926-A-020	Existing External General Arrangement Plan
307926-A-030	Proposed External Works, Demolition and Builders Works Plan
307926-A-040	Proposed External General Arrangement Plan

P1	P2			P3	T1							
P1					T1							
P1					T1							
P1	P2				T1							
P1	P2				T1							
P1					T1							
	P1				T1							

GA Plans	
Existing Plans:	
307926-A-100	Existing Foundation and Drainage Plan
307926-A-101	Existing Ground Floor Plan
307926-A-102	Existing First Floor Plan
307926-A-103	Existing Roof Plan

P1				P2	T1							
P1	P2			P3	T1							
P1	P2			P3	T1							
P1	P2			P3	T1							

Demolition Work & Builders Work Plans:	
307926-A-110	Foundations Demolition & Builders Works Plan
307926-A-111	Ground Floor Demolition & Builders Works Plan
307926-A-112	First Floor Demolition & Builders Works Plan
307926-A-113	Roof Demolition & Builders Works Plan

P1				P2	T1							
P1				P2	T1							
P1				P2	T1							
P1				P2	T1							

General Arrangement Plans:	
307926-A-120	Foundations General Arrangement Plan
307926-A-121	Ground Floor General Arrangement Plan
307926-A-122	First Floor General Arrangement Plan
307926-A-123	Roof General Arrangement Plan

P1				P2	T1							
P1	P2			P3	T1							
P1	P2			P3	T1							
P1	P2			P2	T1							

Setting-Out Plans:	
307926-A-130	Foundations Setting Out Plan
307926-A-131	Ground Floor Setting Out Plan
307926-A-132	First Floor Setting Out Plan
307926-A-133	Roof Setting Out Plan

P1				P2	T1							
P1				P2	T1							
P1				P2	T1							
P1				P2	T1							

Floor Finishes Plans:	
307926-A-141	Proposed Floor Finishes Plan

				P1	T1							
--	--	--	--	----	----	--	--	--	--	--	--	--

Reflected Ceiling Plans:	
307926-A-151	Proposed Reflected Ceiling Plan

				P1	T1							
--	--	--	--	----	----	--	--	--	--	--	--	--

Wall Finishes Plans:	
307926-A-161	Proposed Wall Finishes Plan

				P1	T1							
--	--	--	--	----	----	--	--	--	--	--	--	--

Part P Plans	
307926-A-181	Proposed Ground Floor Part P Plan
307926-A-182	Proposed First Floor Part P Plan
307926-A-182	Proposed Roof Space Part P Plan

				P1	T1							
				P1	T1							
				P1	T1							

Sections	
307926-A-200	Existing Sections
307926-A-210	Proposed Demolition Sections
307926-A-220	Proposed Sections

		P1		P2	T1							
		P1		P2	T1							
		P1		P2	T1							

# DRAWING ISSUE RECORD

Project No: 307926  
 Project: Double Garage and First Floor Extension  
 Client: Stonebank, 2 Rodmell Avenue Saltdean East Sussex  
 Date: 150609185523



Recipient	Organisation
Penny Stonebank	Client
Tina Stonebank	Client
Andy Wright	Client Liason
	Building Control
Paul Earp	Planning Officer. Brighton and Hove Planning Authority

No of Copies (number for hard, E for electronic)												
E	E	E	E	E	E							
E	E	E	E	E	E							
E	E	E	E	E	E	1						
					E							
E												

## ISSUED FOR TENDER

22	27	29	13	05	10							
03	03	04	05	06	06							
15	15	15	15	15	15							

Drawing No. Drawing Title

Elevations	
307926-A-300	Existing Elevations
307926-A-301	Existing Elevations
307926-A-310	Proposed Demolition Elevations
307926-A-311	Proposed Demolition Elevations
307926-A-320	Proposed Elevations
307926-A-321	Proposed Elevations

P1	P2			P3	T1							
P1	P2			P2	T1							
P1				P2	T1							
P1				P2	T1							
P1	P2			P3	T1							
P1	P2			P3	T1							

Details	
307926-A-500	Proposed Plan Details Sheet 01
307926-A-520	Proposed Foundation and Ground Floor Slab Details Sheet 01
307926-A-530	Proposed First Floor Beam and Block Details Sheet 01
307926-A-540	Proposed Roof Details Sheet 01
307926-A-541	Proposed Roof Details Sheet 02
307926-A-550	Proposed Balcony Fabrication Details

				P1	T1							
				P1	T1							
				P1	T1							
				P1	T1							
				P1	T1							

Specifications	
307926-A-PRE	Prelims
307926-A-NBS	NBS Specification

					T1							
				P1	T1							

Construction Design Management Documentation	
307926-A-CDM	CDM Action Plan Draft for Client use only

					T1							
--	--	--	--	--	----	--	--	--	--	--	--	--

Issue Status:	
Issued By:	(Initials)
Document Reference	F:\307926-RODAV\ISSUED\307926-A-DTS.xls\Arch

P	A	P	P	P	T							
RKC	RKC	RKC	RKC	RKC	RKC							

Preliminary (P), Approvals (A), Measurement (M), Tender (T), Construction (C), As Built (AB)

An aerial photograph of a residential neighborhood. A blue dashed line outlines a specific property. Within this property, a red dashed line outlines a structure, possibly a shed or a small building. The surrounding area includes other houses, streets, and greenery.

NOTES: Do not take this drawing. All dimensions to be checked on site prior to commencement of manufacture.

The new Construction (Design and Management) Regulations 2015 come into force on 6 April 2015. The revised legislation applies to all projects including for the first time domestic jobs:

- All projects must have a written construction phase plan
- The role of CDM co-ordinator in the previous CDM Regs 2007 has been removed and replaced with a new role of principal designer.
- There is a duty to make sure all persons doing the job have the right skills, knowledge, training and experience.
- Some domestic and non-domestic projects will have to be notified to the Health & Safety Executive by the client.
- It is the responsibility of the Client to manage the Health and Safety of the project or nominate and agree a "Principal Designer".

■ ■ ■ Denotes area of works demarcation  
■ ■ ■ Denotes Client Property Ownership demarcation

All details referenced in call outs supercede general arrangement or larger depictions.

T1	10.06.15	RKC	-	DRAWING ISSUED FOR TENDER
Rev	Date	By	Chk	Comment



**RAPID KEYSTONE**  
CONSTRUCTION CONSULTANCY LTD

WWW.RKCCILT.CO.UK 07985585488 RKC@RKCCILT.CO.UK

DESIGN ARCHITECTURE ENGINEERING CONSTRUCTION PLANNING  
SCHEDULING PROJECT MANAGEMENT SURVEYING SPECIFICATION  
BUILDING REGULATIONS CONTROLS COSTS QUANTITY SURVEYING CIVIL  
ENGINEERING SITE MANAGEMENT STRUCTURAL ENGINEERING  
ENVIRONMENTAL ENGINEERING SETTING OUT CDM ESTIMATING

Client Penny / Tina  
Stonebank  
Darvey

Project Title  
Proposed Garage and First Floor Extension  
2 Rodmell Avenue  
Saltdean  
East Sussex BN2 8LT

Drawing Title  
Existing  
Satellite Location  
Plan

Drawn by: RKC	Scale: 1:200@A1	Date: 31.01.15
Designed by: -	Checked by: -	Approved by: -

File Ref.: X:\307926-PROD\ARCH\000-SITE\ 307926-A-000.DWG - T1 20:09:24:13:22:20

Drawing No. 307926-A-000	Rev. T1
-----------------------------	------------

All Mechanical & Electrical and Structural information shown indicative only.  
Please refer to Mechanical & Electrical and Structural documentation.



An aerial photograph of a residential property. A blue dashed line outlines the perimeter of the property, which includes a large house with a grey roof and a smaller structure. A red dashed line indicates a path or boundary within the property, starting from the top right and ending near the house. A 3D wireframe model of a house is overlaid on the property, showing the roof structure and walls. The surrounding area includes a street, a driveway with a car, and other houses.

**NOTES: Do not scale this drawing. All dimensions to be checked on site prior to commencement of manufacture.**

The New Construction (Design and Management) Regulations 2015 come into force on 6 April 2015. The revised legislation applies to all projects including for the first time domestic jobs:

- All projects must have a written construction phase plan
- The role of CDM co-ordinator in the previous CDM Regs 2007 has been removed and replaced with a new role of principal designer.
- There is a duty to make sure all persons doing the job have the right skills, knowledge, training and experience.
- Some domestic and non-domestic projects will have to be notified to the Health & Safety Executive by the client.

It is the responsibility of the Client to manage the Health and Safety of the project and nominate and agree a "Principal Designer".

 Denotes area of works demarcation  
 Denotes Client Property Ownership demarcation

All details referenced in call outs supercede general arrangement or larger depictions.

**RAPID KEYSTONE**  
CONSTRUCTION CONSULTANCY LTD

WWW.RKCCCLTD.CO.UK 07985585488 RKCD@RKCCCLTD.CO.UK

DESIGN ARCHITECTURE ENGINEERING CONSTRUCTION PLANNING  
SCHEDULING PROJECT MANAGEMENT SURVEYING SPECIFICATION  
BUILDING REGULATIONS CONTROLS COSTS QUANTITY SURVEYING CM  
ENGINEERING SITE MANAGEMENT STRUCTURAL ENGINEERING  
ENVIRONMENTAL ENGINEERING SETTING OUT CM ESTIMATING

Drawing Title

Existing

Satellite Site

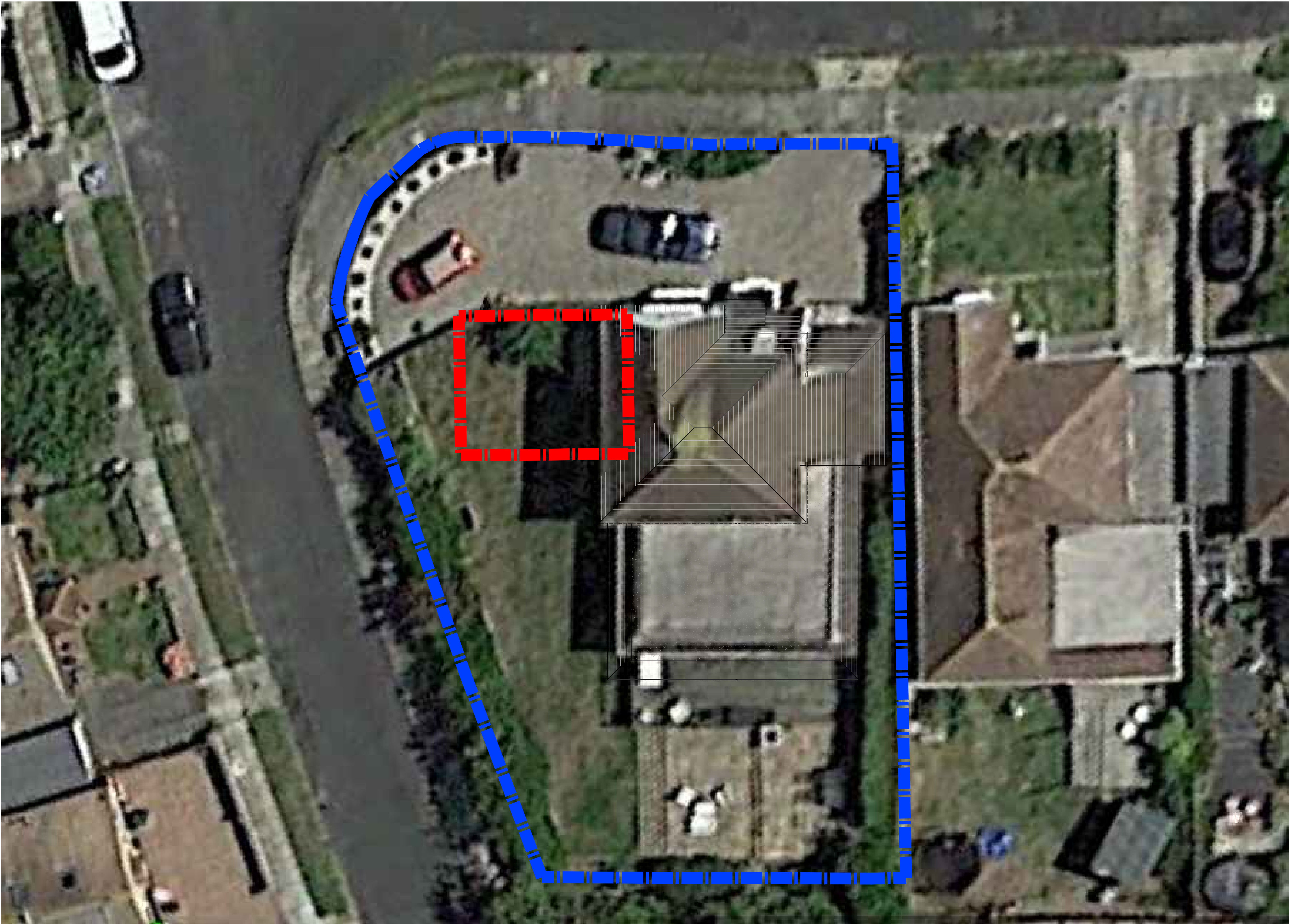
Plan

Drawn by: RKC	Scale: nts	Date: 31.01.15
Designed by: -	Checked by: -	Approved by: -
File Ref.: X:\317676\ADDA\ARCH\DWG\DWG\ 317676-A-001-DWG - T1		20.09.24.13:22:23
Drawing No. 307926-A-001		Rev. T1

All Mechanical & Electrical and Structural information shown indicative only.  
Please refer to Mechanical & Electrical and Structural documentation.



NB: All levels are approximate and are subject to further site investigation prior to construction. All discrepancies to be reported to RKC immediately



NB: All information based on supplied third party survey information. All discrepancies to be reported to RKC immediately upon discovery.

All Mechanical & Electrical and Structural information shown indicative only. Please refer to Mechanical & Electrical and Structural documentation.

This drawing is for the purposes of legislative and regulatory compliance and is not to be used for construction under any circumstances.

NOTES: Do not scale this drawing. All dimensions to be checked on site prior to commencement or manufacture.  
The New Construction (Design and Management) Regulations 2015 come into force on 6 April 2015. The revised legislation applies to all projects including for the first time domestic jobs:  
• All projects must have a written construction phase plan  
• The role of CDM co-ordinator in the previous CDM Regs 2007 has been removed and replaced with a new role of principal designer.  
• There is a duty to make sure all persons doing the job have the right skills, knowledge, training and experience.  
• Some domestic and non-domestic projects will have to be notified to the Health & Safety Executive by the client.  
It is the responsibility of the Client to manage the Health and Safety of the project or nominate and agree a "Principal Designer".

Boundaries Legend  
Denotes area of works demarcation  
Denotes Client Property Ownership demarcation

ISSUED FOR  
TENDER

All details referenced in call outs supercode general arrangement or larger depictions.

T1	10.06.15	RKC	-	DRAWING ISSUED FOR TENDER
Rev	Date	By	Chk	Comment

**RAPID KEYSTONE**  
CONSTRUCTION CONSULTANCY LTD  
WWW.RKCC LTD.CO.UK 07965595488 RKC@RKCC LTD.CO.UK  
DESIGN ARCHITECTURE ENGINEERING CONSTRUCTION PLANNING  
SCHEDULING PROJECT MANAGEMENT SURVEYING SPECIFICATION  
BUILDING REGULATIONS CONTROL COSTS QUANTITY SURVEYING CIVIL  
ENGINEERING SITE MANAGEMENT STRUCTURAL ENGINEERING  
ENVIRONMENTAL ENGINEERING SETTING OUT CDM ESTIMATING

Client  
Penny / Tina  
Stonebank  
Darvey

Project Title  
Proposed Garage and First Floor Extension  
2 Rodmell Avenue  
Saltdean  
East Sussex BN2 8LT

Drawing Title  
Existing  
Orientated Satellite Site  
Plan

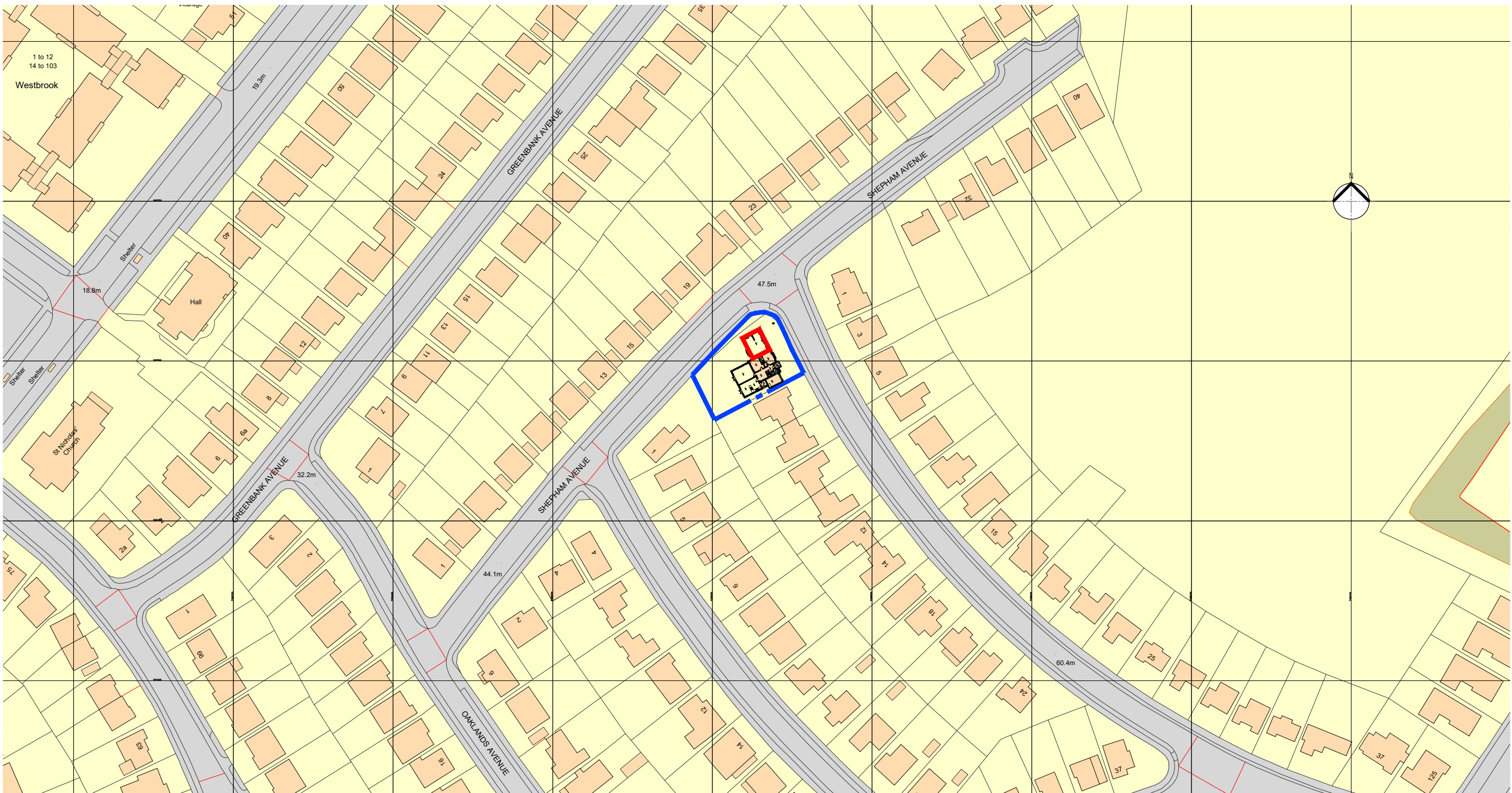
Drawn by: RKC	Scale: nrs	Date: 31.01.15
Designed by: -	Checked by: -	Approved by: -

File Ref.: X:\307926-Rodmell\ARCH000-001- 307926-A-002 DWG - T1 20.09.24\13.22.28

Drawing No. 307926-A-002	Rev. T1
-----------------------------	------------



This drawing is for the purposes of legislative and regulatory compliance and is not to be used for construction under any circumstances.



Licence N°: 56358121\_os-detail

Licence N°: 56358121\_os-detail

**Boundaries Legend**

		Denotes area of works demarcation
		Denotes Client Property Ownership demarcation



All details referenced in call outs supersede general arrangement or larger depictions.

1	10.06.15	RKC	-	DRAWING ISSUED FOR TENDER
Rev	Date	By	Chk	Comment



**RAPID KEYSTONE**  
CONSTRUCTION CONSULTANCY LTD

WWW.RKCCCLTD.CO.UK    07995585486    RKCC@RKCCCLTD.CO.UK

DESIGN ARCHITECTURE ENGINEERING CONSTRUCTION PLANNING  
SCHEDULING PROJECT MANAGEMENT SURVEYING SPECIFICATION  
BUILDING RELATIONS CONTROLS COSTS QUANTITY SURVEYING CIVIL  
ENGINEERING SITE MANAGEMENT STRUCTURAL ENGINEERING  
ENVIRONMENTAL ENGINEERING SETTING OUT CDM ESTIMATING

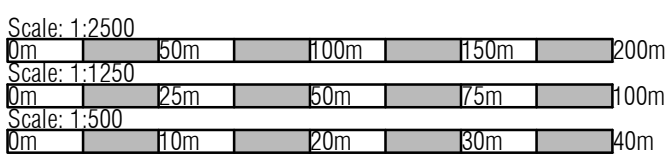
Project Title  
Proposed Garage and First Floor Extension  
2 Rodmell Avenue  
Saltdean  
East Sussex BN2 8LT

Drawn by: RKC	Scale: 1:500, 1250, 2500@A1	Date: 11.12.14
Designed by:	Checked by:	Approved by:

File Ref.: X:\307926-PROD\ARCHIVE\000-SITE\307926-A-010.DWG - T1 20:09:24:13:22:42

Drawing No. 307926-A-010	Rev. T1
-----------------------------	------------

All Mechanical & Electrical and Structural information shown indicative only.  
Please refer to Mechanical & Electrical and Structural documentation.



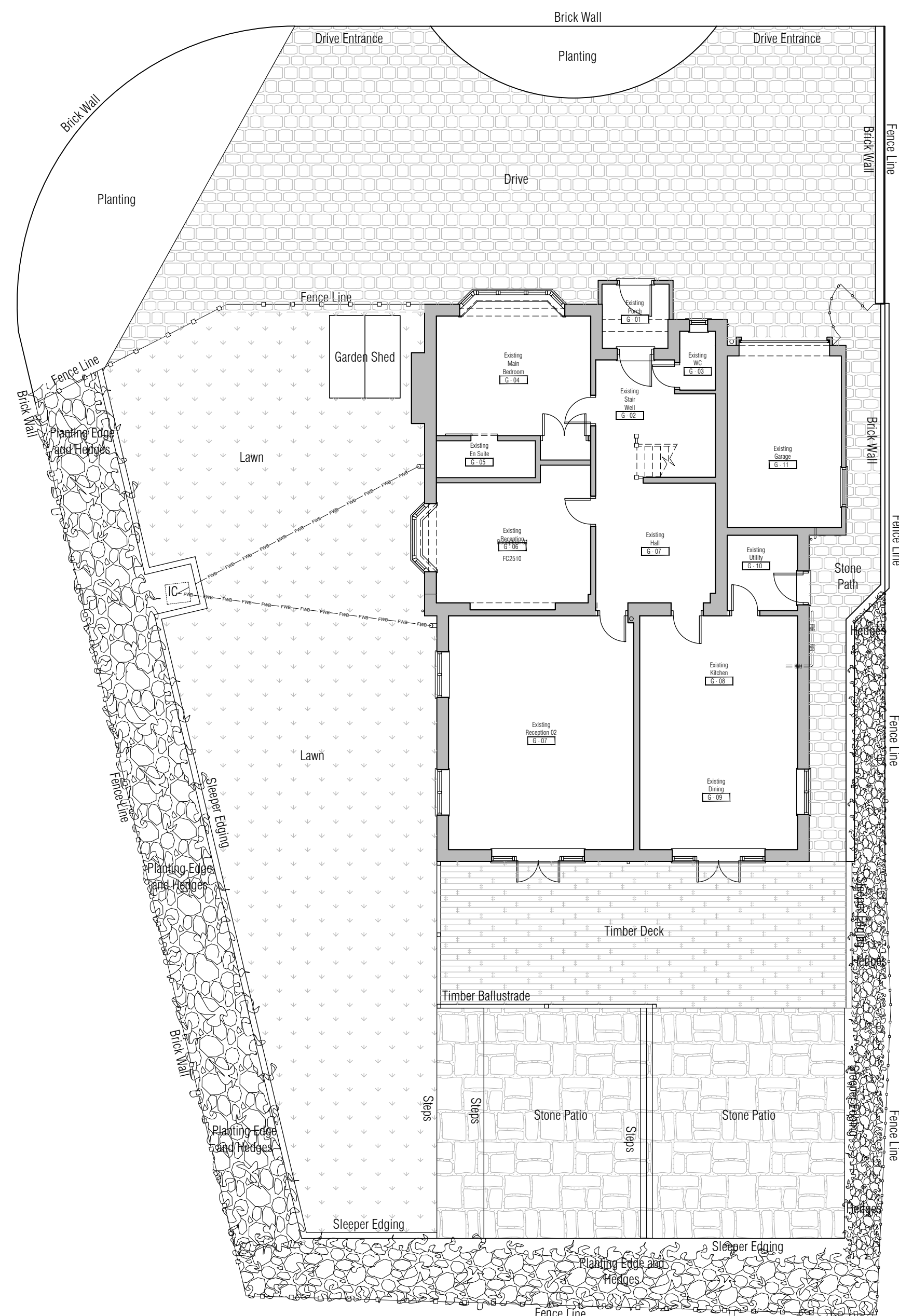


**NOTES:** Do not scale this drawing. All dimensions to be checked on site prior to commencement of manufacture.

The New Construction (Design and Management) Regulations 2015 come into force on 6 April 2015. The revised legislation applies to all projects including for the first time domestic jobs:

- All projects must have a written construction phase plan
- The role of CDM co-ordinator in the previous CDM Regs 2007 has been removed and replaced with a new role of principal designer.
- There is a duty to make sure all persons doing the job have the right skills, knowledge, training and experience.
- Some domestic and non-domestic projects will have to be notified to the Health & Safety Executive by the client.

It is the responsibility of the Client to manage the Health and Safety of the project or nominate and agree a 'Principal Designer'.



ISSUED FOR  
T E N D E R

[illegible]

T1	10.06.15	RKC	-	DRAWING ISSUED FOR TENDER
Rev	Date	By	Chk	Comment



**RAPID KEYSTONE**  
CONSTRUCTION CONSULTANCY LTD

WWW.RKCCLTD.CO.UK      07985585488      RKC@RKCCLTD.CO.UK

DESIGN ARCHITECTURE ENGINEERING CONSTRUCTION PLANNING  
SCHEDULING PROJECT MANAGEMENT SURVEYING SPECIFICATION  
BUILDING REGULATIONS CONTROLS COSTS QUANTITY SURVEYING CIVIL  
ENGINEERING SITE MANAGEMENT STRUCTURAL ENGINEERING  
ENVIRONMENTAL ENGINEERING SETTING OUT CDM ESTIMATING

Client Penny / Tina  
Stonebank  
Darvey

Project Title
Proposed Garage and First Floor Extension 2 Rodmell Avenue Saltdean East Sussex BN2 8LT

Drawing Title
Existing
External
Arrangement
Plan

Drawn by: RKC	Scale: 1:100@A1	Date: 31.01.15
Designed by: -	Checked by: -	Approved by: -

File Ref.: X:\307926-RCD\ARCH\000-SITE\307926-A-026.DWG - T1 20:09:24:13:22:50

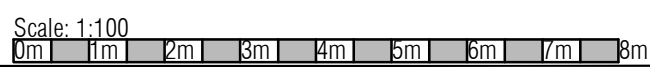
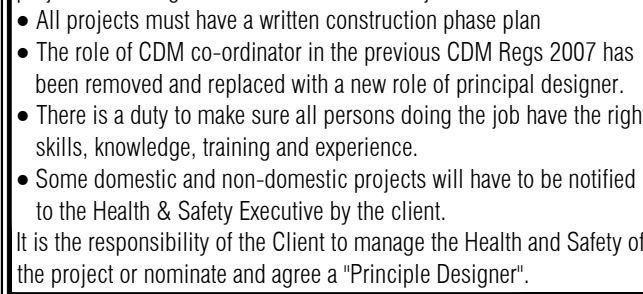
Drawing No. 307926-A-020	Rev. T1
-----------------------------	------------

All Mechanical & Electrical and Structural information shown indicative only.  
Please refer to Mechanical & Electrical and Structural documentation.

Scale: 1:100

0m 1m 2m 3m 4m 5m 6m 7m 8m

NB: All levels are approximate and are subject to further site investigation prior to construction. All discrepancies to be reported to RKC immediately



NB: Contractor to fully investigate and determine load bearing capacity of all building elements and materials and consult with Architect and Structural Engineer prior to commencement of demolition works. All discrepancies to be reported to FCG immediately upon discovery.

NB: All waste to be recycled where possible and/or disposed of in accordance with the Contractor's Site Waste Management Plan and all in accordance with current legislation, particularly, but not excluding, all hazardous materials.

**RAPID KEYSTONE**  
CONSTRUCTION CONSULTANCY LTD

WWW.RKCCCLTD.CO.UK 07965585488 RKCC@RKCCCLTD.CO.UK

DESIGN ARCHITECTURE ENGINEERING CONSTRUCTION PLANNING  
SCHEDULING PROJECT MANAGEMENT SURVEYING SPECIFICATION  
BUILDING REGULATIONS CONTROLS COSTS QUANTITY SURVEYING CIVIL  
ENGINEERING SITE MANAGEMENT STRUCTURAL ENGINEERING  
ENVIRONMENTAL ENGINEERING SETTING OUT CDM ESTIMATING

Drawing No. 307926-A-030	Rev. T1
-----------------------------	------------





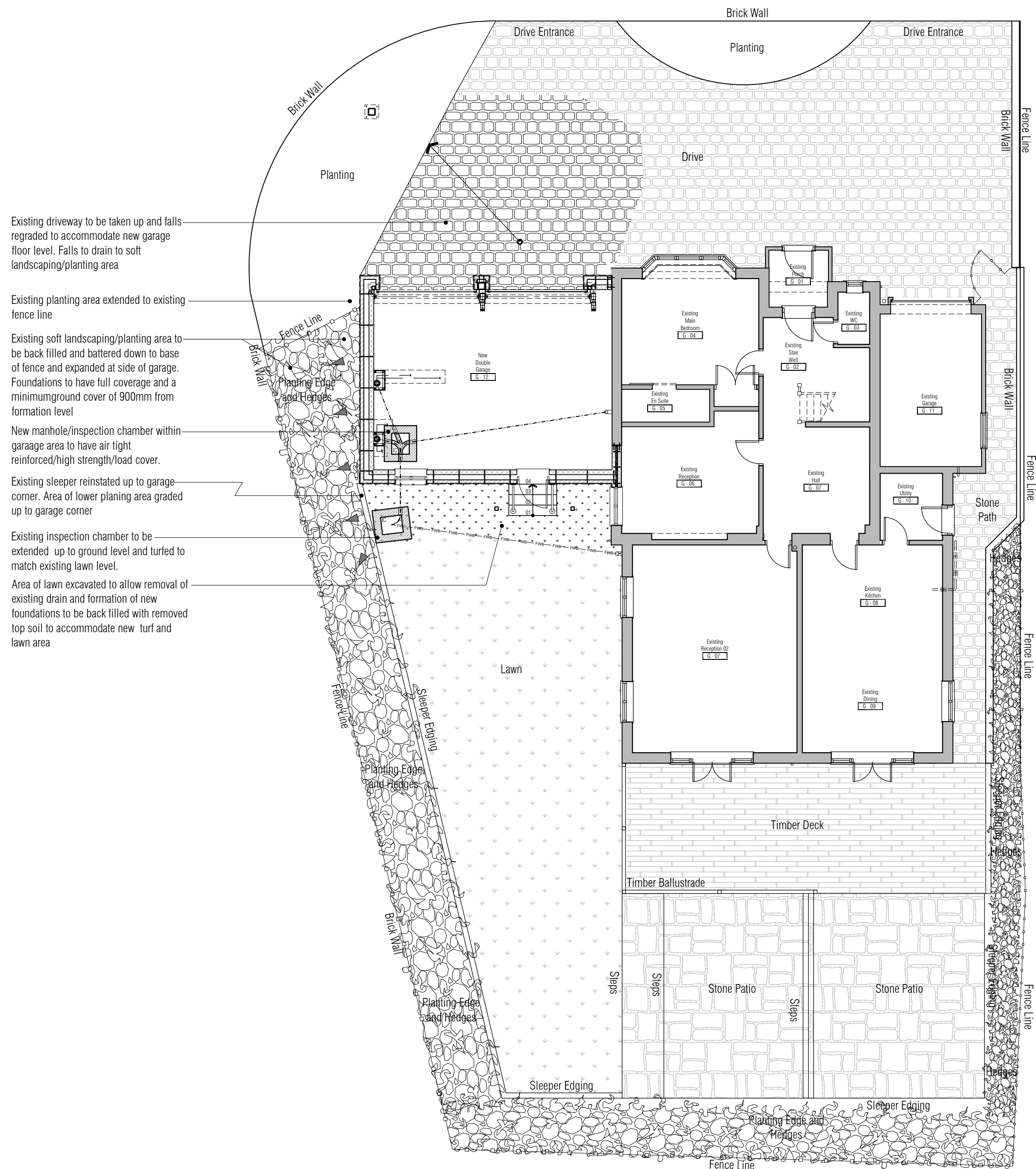
NOTES: Do not scale this drawing. All dimensions to be checked on site prior to commencement or manufacture.

The New Construction (Design and Management) Regulations 2015 come into force on 6 April 2015. The revised legislation applies to all projects including for the first time domestic jobs:

- All projects must have a written construction phase plan
  - The role of CDM co-ordinator in the previous CDM Regs 2007 has been removed and replaced with a new role of principal designer.
  - There is a duty to make sure all persons doing the job have the right skills, knowledge, training and experience.
  - Some domestic and non-domestic projects will have to be notified to the Health & Safety Executive by the client.
- It is the responsibility of the Client to manage the Health and Safety of the project or nominate and agree a "Principal Designer".

### Boundaries Legend

-    Denotes area of works demarcation  
   Denotes Client Property Ownership demarcation



ISSUED FOR  
TENDER

All details referenced in call outs supersede general arrangement or larger depictions.

T1	10.06.15	RKC	-	DRAWING ISSUED FOR TENDER
Rev	Date	By	Chk	Comment



[WWW.RKCCILTO.CO.UK](http://WWW.RKCCILTO.CO.UK)
[07985585488](tel:07985585488)
[RKCC@RKCCILTO.CO.UK](mailto:RKCC@RKCCILTO.CO.UK)

DESIGN ARCHITECTURE ENGINEERING CONSTRUCTION PLANNING  
 SCHEDULING PROJECT MANAGEMENT SURVEYING SPECIFICATION  
 BUILDING REGULATIONS CONTROLS COSTS QUANTITY SURVEYING CIVIL  
 ENGINEERING SITE MANAGEMENT STRUCTURAL ENGINEERING  
 ENVIRONMENTAL ENGINEERING SETTING OUT CDM ESTIMATING

Client  
Penny / Tina  
Stonebank  
Darvey

Project Title  
Proposed Garage and First Floor Extension  
2 Rodmell Avenue  
Saltdean  
East Sussex BN2 8LT

Drawing Title

Proposed  
External  
General Arrangement  
Plan

Drawn by: RKC	Scale: 1:100@A1	Date: 27.03.15
Designed by: -	Checked by: -	Approved by: -

File Ref.: X:\307926-PROD\MARCH\000-SITE\307926-A-040.DWG - T1 20:09:24:13:23:09

Drawing No. 307926-A-040	Rev. T1
-----------------------------	------------

Existing foundations widths, depths and arrangement depicted in this drawing are assumed and subject to further site investigation. Any and all results of such investigation should be reported to the design consultants immediately prior to commencement of works. No new construction may bear on to existing foundations unless specifically designed, detailed or included in the design and approved by the design consultants and Building Control

NB: All levels are approximate and are subject to further site investigation prior to construction. All discrepancies to be reported to RKC immediately



This drawing is for the purposes of legislative and regulatory compliance and is not to be used for construction under any circumstances.

NOTES: Do not scale this drawing. All dimensions to be checked on site prior to commencement or manufacture.

The New Construction (Design and Management) Regulations 2015 come into force on 6 April 2015. The revised legislation applies to all projects including for the first time domestic jobs:

- All projects must have a written construction phase plan
- The role of CDM co-ordinator in the previous CDM Regs 2007 has been removed and replaced with a new role of principal designer.
- There is a duty to make sure all persons doing the job have the right skills, knowledge, training and experience.
- Some domestic and non-domestic projects will have to be notified to the Health & Safety Executive by the client.

It is the responsibility of the Client to manage the Health and Safety of the project or nominate and agree a "Principle Designer".

### Boundaries Legend

   Denotes area of works demarcation

■ ■ ■ Denotes Client Property Ownership demarcation

ISSUED FOR  
T E N D E R

All details referenced in call outs supercede general arrangement or larger depictions.

T1	10.06.15	RKC	-	DRAWING ISSUED FOR TENDER
Rev	Date	By	Chk	Comment



WWW.RKCC LTD.CO.UK 07985585488 RKC@RKCC LTD.CO.UK

DESIGN ARCHITECTURE ENGINEERING CONSTRUCTION PLANNING  
SCHEDULING PROJECT MANAGEMENT SURVEYING SPECIFICATION  
BUILDING REGULATIONS CONTROLS COSTS QUANTITY SURVEYING CIVIL  
ENGINEERING SITE MANAGEMENT STRUCTURAL ENGINEERING  
ENVIRONMENTAL ENGINEERING SETTING OUT CDM ESTIMATING

Client	Penny / Tina
	Stonebank
	Darvey

Project Title  
Proposed Garage and First Floor Extension  
2 Rodmell Avenue  
Saltdean  
East Sussex BN2 8LT

Drawing Title
Existing (Assumed)
Foundation and Drainage
Plan

Drawn by: RKC	Scale: 1:50@A1	Date: 11.12.14
------------------	-------------------	-------------------

Designed by:	Checked by:	Approved by:
-	-	-

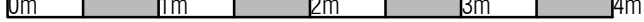
File Ref.: X:\307926-RDOW\ARCH\100-G4\ 307926-A-100.DWG - T1 20:09:24:13:23:24

Drawing No. 307926-A-100	Rev. T1
-----------------------------	------------

NB: All information based on supplied third party survey information.  
All discrepancies to be reported to RKC immediately upon discovery.

All Mechanical & Electrical and Structural information shown indicative only.  
Please refer to Mechanical & Electrical and Structural documentation.

Scale: 1:50



01 Existing (Assumed) Foundation and Drainage Plan  
Scale: 1:50



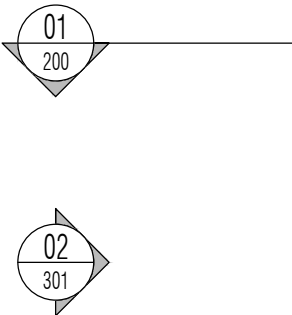


**NOTES:** Do not scale this drawing. All dimensions to be checked on site prior to commencement of manufacture.

The New Construction (Design and Management) Regulations 2015 come into force on 6 April 2015. The revised legislation applies to all projects including for the first time domestic jobs:

- All projects must have a written construction phase plan
- The role of CDM co-ordinator in the previous CDM Regs 2007 has been removed and replaced with a new role of principal designer.
- There is a duty to make sure all persons doing the job have the right skills, knowledge, training and experience.
- Some domestic and non-domestic projects will have to be notified to the Health & Safety Executive by the client.

It is the responsibility of the Client to manage the Health and Safety of the project or nominate and agree a 'Principal Designer'.



All Mechanical & Electrical and Structural information shown indicative only.  
Please refer to Mechanical & Electrical and Structural documentation.

File Ref.: X:\307926-PROD\ARCH\100-GA,  
307926-A-101.DWG - T1 20:09:24:13:23:29

Drawing No. 307926-A-101	Rev. T1
-----------------------------	------------

**NOTES:** Do not scale this drawing. All dimensions to be checked on site prior to commencement of manufacture.

The New Construction (Design and Management) Regulations 2015 come into force on 6 April 2015. The revised legislation applies to all projects including for the first time domestic jobs:

- All projects must have a written construction phase plan
- The role of CDM co-ordinator in the previous CDM Regs 2007 has been removed and replaced with a new role of principal designer.
- There is a duty to make sure all persons doing the job have the right skills, knowledge, training and experience.
- Some domestic and non-domestic projects will have to be notified to the Health & Safety Executive by the client.

It is the responsibility of the Client to manage the Health and Safety of the project or nominate and agree a 'Principal Designer'.

All details referenced in call outs supersede general arrangement or larger depictions.

T1	10.06.15	RKC	-	DRAWING ISSUED FOR TENDER
Rev	Date	By	Chk	Comment

**RAPID KEYSTONE**  
CONSTRUCTION CONSULTANCY LTD

WWW.RKCCCLTD.CO.UK 07765585488 RKC@RKCCCLTD.CO.UK

DESIGN ARCHITECTURE ENGINEERING CONSTRUCTION PLANNING  
SCHEDULING PROJECT MANAGEMENT SURVEYING SPECIFICATION  
BUILDING REGULATIONS CONTROLS COSTS QUANTITY SURVEYING CIVIL  
ENGINEERING SITE MANAGEMENT STRUCTURAL ENGINEERING  
ENVIRONMENTAL ENGINEERING SETTING OUT COST ESTIMATING

Project Title  
Proposed Garage and First Floor Extension  
2 Rodmell Avenue  
Saltdean  
East Sussex BN2 8LT

Drawn by: RKC	Scale: 1:50@A1	Date: 31.01.15
Designed by: -	Checked by: -	Approved by: -

File Ref.: X:\307926-RSD\ARCH\100-GN\307926-A-102.DWG - T1 20-09-24-13:23:34

Drawing No. 307926-A-102	Rev. T1
-----------------------------	------------

All Mechanical & Electrical and Structural information shown indicative only.  
Please refer to Mechanical & Electrical and Structural documentation.



**NOTES: Do not scale this drawing. All dimensions to be checked on site prior to commencement or manufacture.**

**The New Construction (Design and Management) Regulations 2015** come into force on 6 April 2015. The revised legislation applies to all projects including for the first time domestic jobs:

- All projects must have a written construction phase plan
- The role of CDM co-ordinator in the previous CDM Regs 2007 has been removed and replaced with a new role of principal designer.
- There is a duty to make sure all persons doing the job have the right skills, knowledge, training and experience.
- Some domestic and non-domestic projects will have to be notified to the Health & Safety Executive by the client.

It is the responsibility of the Client to manage the Health and Safety of the project and nominate and agree a 'Principal Designer'.

All details referenced in call outs supersede general arrangement or larger depictions.



**RAPID KEYSTONE**  
CONSTRUCTION CONSULTANCY LTD

WWW.RKCCCLTD.CO.UK    07965595488    RKCC@RKCCCLTD.CO.UK

DESIGN ARCHITECTURE ENGINEERING CONSTRUCTION PLANNING  
SCHEDULING PROJECT MANAGEMENT SURVEYING SPECIFICATION  
BUILDING REGULATIONS CONTROLS COSTS QUANTITY SURVEYING CIVIL  
ENGINEERING SITE MANAGEMENT STRUCTURAL ENGINEERING  
ENVIRONMENTAL ENGINEERING SETTING OUT CDM ESTIMATING

Project Title  
Proposed Garage and First Floor Extension  
2 Rodmell Avenue  
Saltdean  
East Sussex BN2 8LT

Drawn by: RKC	Scale: 1:50@A1	Date: 31.01.15
Designed by: -	Checked by: -	Approved by: -

Drawing No. 307926-A-103	Rev. T1
-----------------------------	------------

All Mechanical & Electrical and Structural information shown indicative only.  
Please refer to Mechanical & Electrical and Structural documentation.

Existing foundations widths, depths and arrangement depicted in this drawing are assumed and subject to further site investigation. Any and all results of such investigation should be reported to the design consultants immediately prior to commencement of works. No new construction may bear on to existing foundations unless specifically designed, detailed or included in the design and approved by the design consultants and Building Control.

All builders works (cutting, coring, penetrating, etc.) to be in accordance with M&E Engineers dwgs. No builders works to proceed without confirmation by Structural Engineer to maintain integrity of structure.	NB: All levels are approximate and are subject to further site investigation prior to construction. All discrepancies to be reported to RKC immediately
---	---

This drawing is for the purposes of legislative and regulatory compliance  
and is not to be used for construction under any circumstances.

NOTES: Do not scale this drawing. All dimensions to be checked on site prior to commencement or manufacture.





The New Construction (Design and Management) Regulations 2015 come into force on 6 April 2015. The revised legislation applies to all projects including for the first time domestic jobs:

- All projects must have a written construction phase plan
- The role of CDM co-ordinator in the previous CDM Regs 2007 has been removed and replaced with a new role of principal designer.
- There is a duty to make sure all persons doing the job have the right skills, knowledge, training and experience.
- Some domestic and non-domestic projects will have to be notified to the Health & Safety Executive by the client.

It is the responsibility of the Client to manage the Health and Safety of the project or nominate and agree a "Principle Designer".

### Boundaries Legend

-  Denotes area of works demarcation  
 Denotes Client Property Ownership demarcation  
 Demolition Legend

- |   |   |
|---|---|
|  | Denotes existing walls, elements, stud partitions, barriers, screens, etc. to be removed and interfaces made good.  |
|  | Denotes floor finishes, underlays, adhesives, etc to be removed back to a suitable substrate subject to site approval.  |
|  | Denotes ceilings/finishes, grids, boards, etc to be removed back to a suitable substrate subject to site approval.  |
|  | Denotes penetrations (assumed diamond core drilled) cut in floor for services. Structural Engineers approval is required prior to commencement of any and all alterations to fabric and structural elements |

All floor finishes, coverings and underlays to be removed and surfaces made good to receive new. All suspended ceiling tiles, grids and suspensions to be removed and disposed of in accordance with SWMP

### Mechanical and Electrical Strip out

All existing ground floor connections to below ground drainage are to be retained and be capped and sleeved for possible future re-use (to M&E Subcontractor later design) unless indicated to the contrary.  
All existing above ground services are to be retained for possible future re-use (to M&E Subcontractor later design) unless indicated to the contrary.

- Stripping to be commenced only after agreement of method statements and safe working protocols.
- Stripping to be carried out only under a permit process.
- All things to be cut off at surface and made safe.
- All holes through structure and fabric to have sleeves and existing stripping material removed and holes made good i.e. filled with material appropriate to the fire rating of the original and made flush with existing surfaces.
- All stripped material to be sorted and disposed under an environmentally sensitive waste disposal plan to be agreed prior to works commencing.
- All systems to be made safe prior to stripping commencing.
- The building is of an age where it is reasonable to anticipate harmful materials may exist and prior to work commencing operatives shall be made aware of the indications within the asbestos register and survey.
- On discovery or suspicion of any material that may be harmful in the process of the works these shall cease until an agreed action plan is put in place including any necessary testing and licensed removal.

ISSUED FOR  
T E N D E R

All details referenced in call outs supercede general arrangement or larger depictions.

T1	10.06.15	RKC	-	DRAWING ISSUED FOR TENDER
Rev	Date	By	Chk	Comment



Client	Penny / Tina
	Stonebank
	Darvey

Project Title  
Proposed Garage and First Floor Extension  
2 Rodmell Avenue  
Saltdean  
East Sussex BN2 8LT

Drawing Title

Proposed  
Foundation  
Demolition and Builders Works  
Plan

Drawn by: RKC	Scale: 1:50@A1	Date: 11.12.14
Designed by: -	Checked by: -	Approved by: -

File Ref.: X:\307926-RISD\ARCH\100-GA  
307926-A-110.DWG - T1 20:09:24:13:23:46

Drawing No. 307926-A-110	Rev. T1
-----------------------------	------------

NB: All information based on supplied third party survey information.  
All discrepancies to be reported to RKC immediately upon discovery.

NB: Contractor to fully investigate and determine load bearing capacity of all building elements and materials and consult with Architect and Structural Engineer prior to commencement of demolition works. All discrepancies to be reported to FCG immediately upon discovery.

All Mechanical & Electrical and Structural information shown indicative only.  
Please refer to Mechanical & Electrical and Structural documentation.

NB: All waste to be recycled where possible and/or disposed of in accordance with the Contractor's Site Waste Management Plan and all in accordance with current legislation, particularly, but not excluding, all hazardous materials









NB: All levels are approximate and are subject to further site investigation prior to construction. All discrepancies to be reported to RKC immediately

This drawing is for the purposes of legislative and regulatory compliance and is not to be used for construction under any circumstances.

NOTES: Do not scale this drawing. All dimensions to be checked on site prior to commencement or manufacture.

The New Construction (Design and Management) Regulations 2015 come into force on 6 April 2015. The revised legislation applies to all projects including for the first time domestic jobs:





- All projects must have a written construction phase plan
- The role of CDM co-ordinator in the previous CDM Regs 2007 has been removed and replaced with a new role of principal designer.
- There is a duty to make sure all persons doing the job have the right skills, knowledge, training and experience.
- Some domestic and non-domestic projects will have to be notified to the Health & Safety Executive by the client.

It is the responsibility of the Client to manage the Health and Safety of the project or nominate and agree a "Principle Designer".

### Boundaries Legend

- ■ ■ Denotes area of works demarcation  
■ ■ ■ Denotes Client Property Ownership demarcation

### Demolition Legend

- |   |  |
|---|--|
|  | Denotes existing walls, elements, stud partitions, barriers, screens, etc. to be removed and interfaces made good.   |
|  | Denotes floor finishes, underlays, adhesives, etc to be removed back to a suitable substrate subject to site approval.   |
|  | Denotes ceilings/finishes, grids, boards, etc. to be removed back to a suitable substrate subject to site approval.  |
|  | Denotes penetrations (assumed diamond core drilled) cut in floor for services. Structural Engineer's approval is required prior to commencement of any and all alterations to fabric and structural elements |

All floor finishes, coverings and underlays to be removed and surfaces made good to receive new. All suspended ceiling tiles, grids and suspensions to be removed and disposed of in accordance with SWMP

## Mechanical and Electrical Strip out

All existing ground floor connections to below ground drainage are to be retained and be capped and sleeved for possible future re-use (to M&E Subcontractor later design) unless indicated to the contrary. All existing above ground services are to be retained for possible future re-use (to M&E Subcontractor later design) unless indicated to the contrary.

- Stripping to be commenced only after agreement of method statements and safe working protocols.
- Stripping to be carried out only under a permit process.
- All fittings to be cut off at surface and made safe.
- All holes through structure and fabric to have sleeves and existing stopping material removed and holes made good i.e. filled with material appropriate to the fire rating of the original and made flush with existing surfaces.
- All stripped material to be sorted and disposed under an environmentally sensitive waste disposal plan to be agreed prior to work commencing.
- All systems to be made safe prior to stripping commencing.
- The building is of an age where it is reasonable to anticipate harmful materials may exist and prior to work commencing operatives shall be made aware of the indications within the asbestos register and survey.
- On discovery or suspicion of any material that may be harmful in the process of the works these shall cease until an agreed action plan is put in place including any necessary testing and licensed removal.

ISSUED FOR  
T E N D E R

All details referenced in call outs supercede general arrangement or larger deductions

T1	10.06.15	RKC	-	DRAWING ISSUED FOR TENDER	
Rev	Date	By	Chk	Comment	



Client	Penny / Tina
	Stonebank
	Darvey

Project Title  
Proposed Garage and First Floor Extension  
2 Rodmell Avenue  
Saltdean  
East Sussex BN2 8LT

Drawing Title

Proposed

Roof

Demolition and Builders Works

Plan

Drawn by: RKC	Scale: 1:50@A1	Date: 11.12.14
Designed by: -	Checked by: -	Approved by: -

File Ref.: X:\307926-RIDDAN\ARCH\100-G4,  
307926-A-113.DWG - T1 20-09-24-12:24:05

Drawing No.	Rev.
307926-A-113	T1

NB: All information based on supplied third party survey information.  
All discrepancies to be reported to BKG immediately upon discovery

NB: Contractor to fully investigate and determine load bearing capacity of all building elements and materials and consult with Architect and Structural Engineer prior to commencement of demolition works. All discrepancies to be reported to ECG immediately upon discovery.

All Mechanical & Electrical and Structural information shown indicative only.  
Please refer to Mechanical & Electrical and Structural documentation

NB: All waste to be recycled where possible and/or disposed of in accordance with the Contractor's Site Waste Management Plan and all in accordance with current legislation, particularly but not excluding all hazardous materials





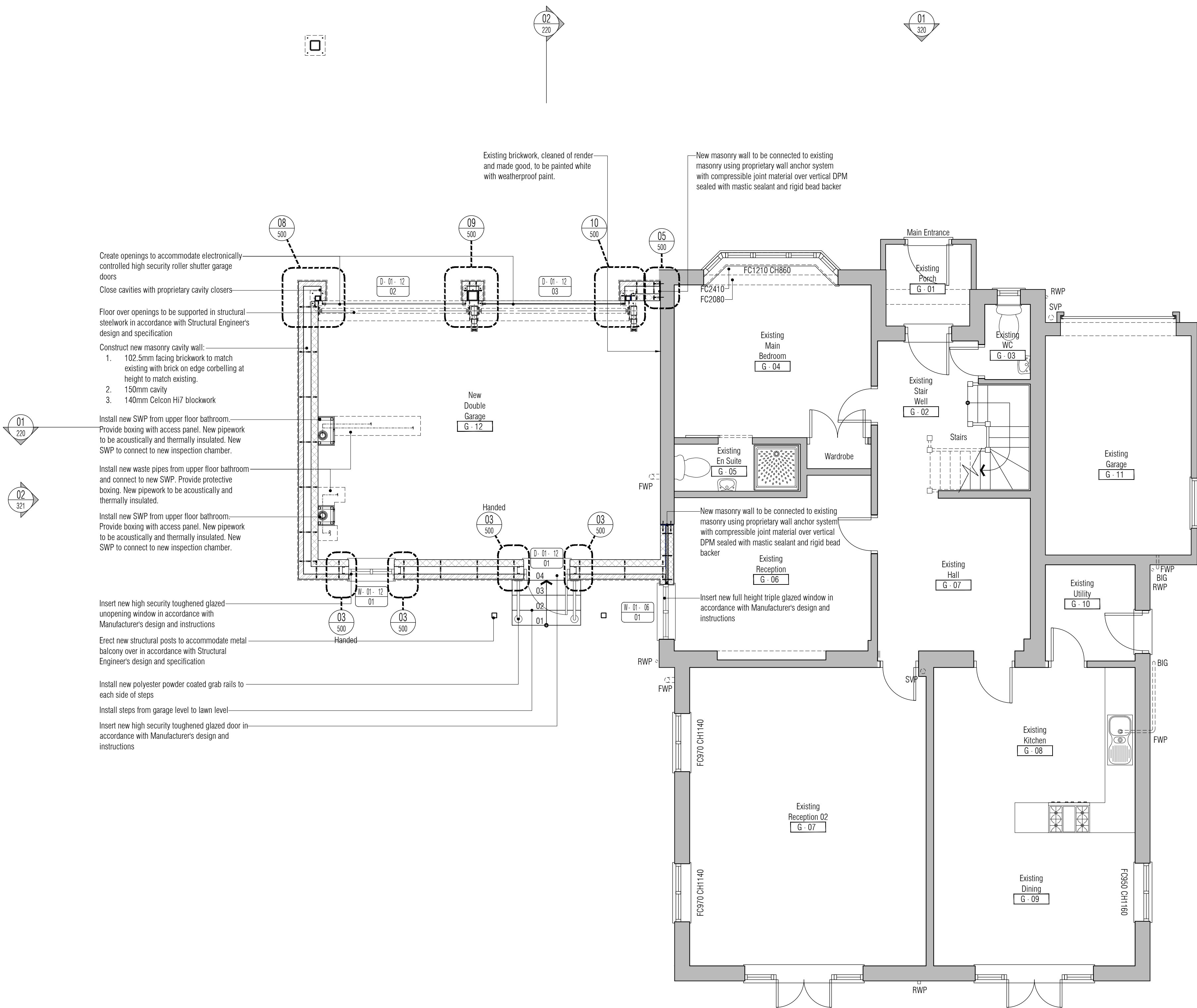


NOTES: Do not scale this drawing. All dimensions to be checked on site prior to commencement or manufacture.

The New Construction (Design and Management) Regulations 2015 come into force on 6 April 2015. The revised legislation applies to all projects including for the first time domestic jobs:

- All projects must have a written construction phase plan
- The role of CDM co-ordinator in the previous CDM Regs 2007 has been removed and replaced with a new role of principal designer.
- There is a duty to make sure all persons doing the job have the right skills, knowledge, training and experience.
- Some domestic and non-domestic projects will have to be notified to the Health & Safety Executive by the client.

It is the responsibility of the Client to manage the Health and Safety of the project or nominate and agree a "Principal Designer".



01 Proposed Ground Floor Plan  
Scale: 1:50

ISSUED FOR  
TENDER

All details referenced in call outs supersede general arrangement or larger depictions.

Rev	Date	By	Chk	Comment
T1	10.06.15	RKC		DRAWING ISSUED FOR TENDER

**RAPID KEYSTONE**  
CONSTRUCTION CONSULTANCY LTD

WWW.RKCC LTD.CO.UK 07985595488 RKCC@RKCC LTD.CO.UK

DESIGN ARCHITECTURE ENGINEERING CONSTRUCTION PLANNING  
SCHEDULING PROJECT MANAGEMENT SURVEYING SPECIFICATION  
BUILDING REGULATIONS CONTROLS COSTS QUANTITY SURVEYING CIVIL  
ENGINEERING SITE MANAGEMENT STRUCTURAL ENGINEERING  
ENVIRONMENTAL ENGINEERING SETTING OUT CDM ESTIMATING

Client  
Penny / Tina  
Stonebank  
Darvey

Project Title  
Proposed Garage and First Floor Extension  
2 Rodmell Avenue  
Saltdean  
East Sussex BN2 8LT

Drawing Title  
Proposed  
Ground Floor  
General Arrangement  
Plan

Drawn by: RKC	Scale: 1:50@A1	Date: 15.02.15
Designed by: -	Checked by: -	Approved by: -

File Ref.: X:\307926 RODMELL\ARCH\01.DWG - T1 20.09.24 13:24:18

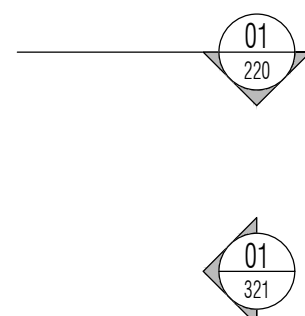
Drawing No. 307926-A-121	Rev. T1
-----------------------------	------------

**NOTES:** Do not scale this drawing. All dimensions to be checked on site prior to commencement of manufacture.

The New Construction (Design and Management) Regulations 2015 come into force on 6 April 2015. The revised legislation applies to all projects including for the first time domestic jobs:

- All projects must have a written construction phase plan
- The role of CDM co-ordinator in the previous CDM Regs 2007 has been removed and replaced with a new role of principal designer.
- There is a duty to make sure all persons doing the job have the right skills, knowledge, training and experience.
- Some domestic and non-domestic projects will have to be notified to the Health & Safety Executive by the client.

It is the responsibility of the Client to manage the Health and Safety of the project or nominate and agree a 'Principal Designer'.



All Mechanical & Electrical and Structural information shown indicative only.  
Please refer to Mechanical & Electrical and Structural documentation.

File Ref.: X:\307926-RISDA\ARCH\100-GA;  
307926-A-122.DWG - T1 20:09:24:13:24:25

Drawing No	Rev
------------	-----

307926-A-122	T1
--------------	----





Existing foundations widths, depths and arrangement depicted in this drawing are assumed and subject to further site investigation. Any and all results of such investigation should be reported to the design consultants immediately prior to commencement of works. No new construction may bear on to existing foundations unless specifically designed, detailed or included in the design and approved by the design consultants and Building Control

NB: All levels are approximate and are subject to further site investigation prior to construction. All discrepancies to be reported to RKC immediately

This drawing is for the purposes of legislative and regulatory compliance  
and is not to be used for construction under any circumstances.

**NOTES:** Do not scale this drawing. All dimensions to be checked on site prior to commencement or manufacture.

The New Construction (Design and Management) Regulations 2015 come into force on 6 April 2015. The revised legislation applies to all projects including for the first time domestic jobs:

- All projects must have a written construction phase plan
  - The role of CDM co-ordinator in the previous CDM Regs 2007 has been removed and replaced with a new role of principal designer.
  - There is a duty to make sure all persons doing the job have the right skills, knowledge, training and experience.
  - Some domestic and non-domestic projects will have to be notified to the Health & Safety Executive by the client.
- It is the responsibility of the Client to manage the Health and Safety of the project or nominate and agree a "Principle Designer".

### Setting Out Legend

\*6 Dimensions prefixed with " \* " denotes site check dimensions

All dimensions prefixed by \* are dimensions to the existing fabric and are subject to site checking prior to commencement of construction, manufacture or installation. All discrepancies to be reported to RKC immediately on discovery.

ISSUED FOR  
T E N D E R

All details referenced in call outs supercede general arrangement or larger depictions.

T1	10.06.15	RKC	-	DRAWING ISSUED FOR TENDER
Rev	Date	By	Chk	Comment

**RAPID KEYSTONE**  
CONSTRUCTION CONSULTANCY LTD

WWW.RKCCCLTD.CO.UK 07985585488 RKCCCLTD.CO.UK

DESIGN ARCHITECTURE ENGINEERING CONSTRUCTION PLANNING  
SCHEDULING PROJECT MANAGEMENT SURVEYING SPECIFICATION  
BUILDING REGULATIONS CONTROLS COSTS QUANTITY SURVEYING CIVIL  
ENGINEERING SITE MANAGEMENT STRUCTURAL ENGINEERING  
ENVIRONMENTAL ENGINEERING SETTING OUT COM ESTIMATING

Client  
Penny / Tina  
Stonebank  
Darvey

Project Title  
Proposed Garage and First Floor Extension  
2 Rodmell Avenue  
Saltdean  
East Sussex BN2 8LT

Drawing Title	Proposed Foundation Setting Out Plan
---------------	---

Drawn by: RKC	Scale: 1:50@A1	Date: 22.03.15
Designed by: -	Checked by: -	Approved by: -

File Ref.: X:\307926-ASD\ARCH\100-G4\307926-A-130.DWG - T1 20-09-24-13:24:38

Drawing No. 307926-A-130	Rev. T1
-----------------------------	------------

NB: All information based on supplied third party survey information.  
All discrepancies to be reported to RKC immediately upon discovery.

All Mechanical & Electrical and Structural information shown indicative only.  
Please refer to Mechanical & Electrical and Structural documentation.



NB: All levels are approximate and are subject to further site investigation prior to construction. All discrepancies to be reported to RKC immediately

This drawing is for the purposes of legislative and regulatory compliance and is not to be used for construction under any circumstances.

**NOTES: Do not scale this drawing. All dimensions to be checked on site prior to commencement or manufacture.**

**The New Construction (Design and Management) Regulations 2015** come into force on 6 April 2015. The revised legislation applies to all projects including for the first time domestic jobs:

- All projects must have a written construction phase plan
- The role of CDM co-ordinator in the previous CDM Regs 2007 has been removed and replaced with a new role of principal designer.
- There is a duty to make sure all persons doing the job have the right skills, knowledge, training and experience.
- Some domestic and non-domestic projects will have to be notified to the Health & Safety Executive by the client.

It is the responsibility of the Client to manage the Health and Safety of the project or nominate and agree a "Principal Designer".

### Setting Out Legend

\*6 Dimensions prefixed with " \* " denotes site check dimensions

All dimensions prefixed by \* are dimensions to the existing fabric and are subject to site checking prior to commencement of construction, manufacture or installation. All discrepancies to be reported to RKC immediately on discovery.

ISSUED FOR  
T E N D E R

All details referenced in call outs supersede general arrangement or larger depictions.

T1	10.06.15	RKC	-	DRAWING ISSUED FOR TENDER	
Rev	Date	By	Chk	Comment	



**RAPID KEYSTONE**  
CONSTRUCTION CONSULTANCY LTD

WWW.RKCC LTD.CO.UK 07955585480 RKCC@RKCC LTD.CO.UK

DESIGN ARCHITECTURE ENGINEERING CONSTRUCTION PLANNING  
SCHEDULING PROJECT MANAGEMENT SURVEYING SPECIFICATION  
BUILDING REGULATIONS CONTROLS COSTS QUANTITY SURVEYING CIVIL  
ENGINEERING SITE MANAGEMENT STRUCTURAL ENGINEERING  
ENVIRONMENTAL ENGINEERING SETTING OUT CDM ESTIMATING

Client  
Penny / Tina  
Stonebank  
Darvey

Project Title  
Proposed Garage and First Floor Extension  
2 Rodmell Avenue  
Saltdean  
East Sussex BN2 8LT

Drawing Title

Proposed

Ground Floor

Setting Out

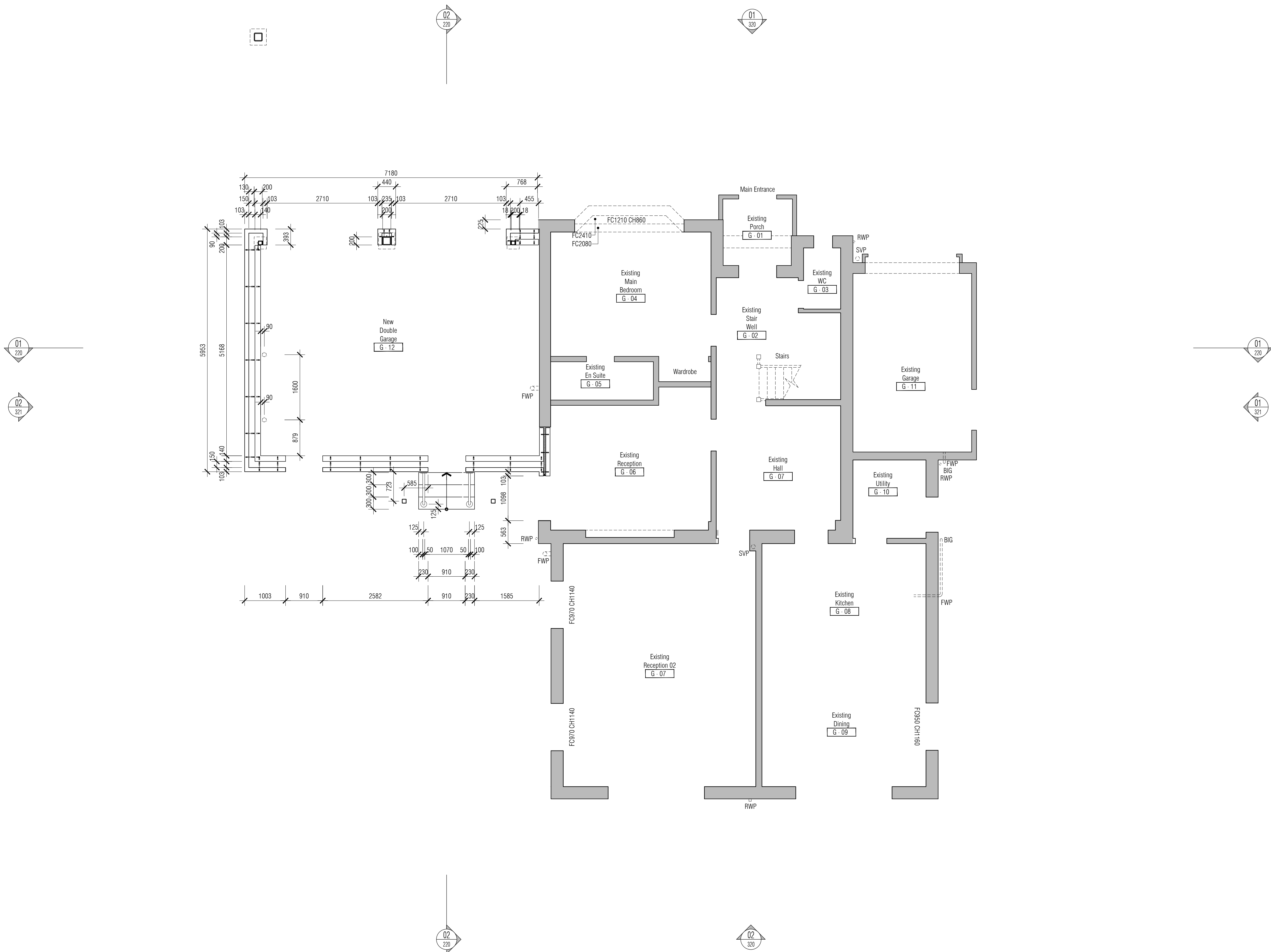
Plan

Drawn by: RKC	Scale: 1:50@A1	Date: 22.03.15
------------------	-------------------	-------------------

Designed by:	Checked by:	Approved by:
-	-	-

File Ref.: X:\307926-RIDAWARCH\100-G4\307926-A-131.DWS - T1 20:09:24:13:24:43

Drawing No. 307926-A-131	Rev. T1
-----------------------------	------------



NB: All information based on supplied third party survey information.  
All discrepancies to be reported to RKC immediately upon discovery.

All Mechanical & Electrical and Structural information shown indicative only.  
Please refer to Mechanical & Electrical and Structural documentation.

NB: All levels are approximate and are subject to further site investigation prior to construction. All discrepancies to be reported to RKC immediately

This drawing is for the purposes of legislative and regulatory compliance and is not to be used for construction under any circumstances.

NOTES: Do not scale this drawing. All dimensions to be checked on site prior to commencement or manufacture.

The New Construction (Design and Management) Regulations 2015 come into force on 6 April 2015. The revised legislation applies to all projects including for the first time domestic jobs:

- All projects must have a written construction phase plan
- The role of CDM co-ordinator in the previous CDM Regs 2007 has been removed and replaced with a new role of principal designer.
- There is a duty to make sure all persons doing the job have the right skills, knowledge, training and experience.
- Some domestic and non-domestic projects will have to be notified to the Health & Safety Executive by the client.

It is the responsibility of the Client to manage the Health and Safety of the project or nominate and agree a "Principal Designer".

Setting Out Legend

Dimensions prefixed with \* \* \* denotes site check dimensions

All dimensions prefixed by \* are dimensions to the existing fabric and are subject to site checking prior to commencement of construction, manufacture or installation. All discrepancies to be reported to RKC immediately on discovery.

ISSUED FOR  
TENDER

All details referenced in call outs supercede general arrangement or larger depictions.

Rev	Date	By	Chk	Comment
T1	10.06.15	RKC	-	DRAWING ISSUED FOR TENDER

**RAPID KEYSTONE**  
CONSTRUCTION CONSULTANCY LTD

WWW.RKCCCLTD.CO.UK0779855954888RKC@RKCCCLTD.CO.UK

DESIGN ARCHITECTURE ENGINEERING CONSTRUCTION PLANNING  
SCHEDULING PROJECT MANAGEMENT SURVEYING SPECIFICATION  
BUILDING REGULATIONS CONTROLS COSTS QUANTITY SURVEYING CIVIL  
ENGINEERING SITE MANAGEMENT STRUCTURAL ENGINEERING  
ENVIRONMENTAL ENGINEERING SETTING OUT CDM ESTIMATING

Client  
Penny / Tina  
Stonebank  
Darvey

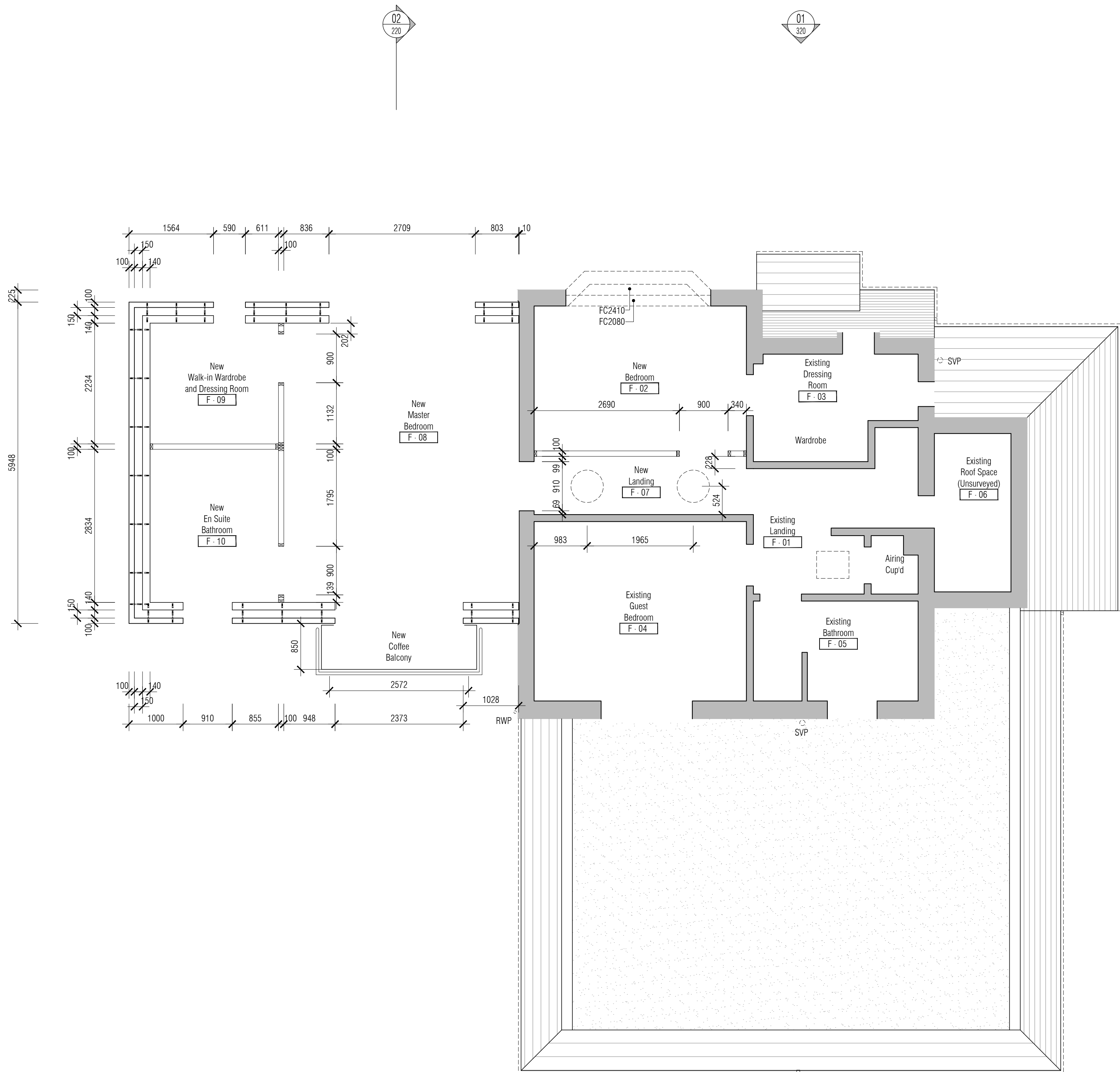
Project Title  
Proposed Garage and First Floor Extension  
2 Rodmell Avenue  
Saltdean  
East Sussex BN2 8LT

Drawing Title  
Proposed  
First Floor  
Setting Out  
Plan

Drawn by: RKC	Scale: 1:50@A1	Date: 22.03.15
Designed by: -	Checked by: -	Approved by: -

File Ref.: X:\307926-Rodmell\ARCH\307926-11  
307926-A-132 DWG - T120.09.24.13:24:50

Drawing No. 307926-A-132	Rev. T1
-----------------------------	------------



NB: All information based on supplied third party survey information. All discrepancies to be reported to RKC immediately upon discovery.

All Mechanical & Electrical and Structural information shown indicative only. Please refer to Mechanical & Electrical and Structural documentation.



NB: All levels are approximate and are subject to further site investigation prior to construction. All discrepancies to be reported to RKC immediately

This drawing is for the purposes of legislative and regulatory compliance and is not to be used for construction under any circumstances.

**NOTES:** Do not scale this drawing. All dimensions to be checked on site prior to commencement or manufacture.

The New Construction (Design and Management) Regulations 2015 come into force on 6 April 2015. The revised legislation applies to all projects including for the first time domestic jobs:

- All projects must have a written construction phase plan
- The role of CDM co-ordinator in the previous CDM Regs 2007 has been removed and replaced with a new role of principal designer.
- There is a duty to make sure all persons doing the job have the right skills, knowledge, training and experience.
- Some domestic and non-domestic projects will have to be notified to the Health & Safety Executive by the client.

It is the responsibility of the Client to manage the Health and Safety of the project or nominate and agree a "Principle Designer".

### Setting Out Legend

\*6 Dimensions prefixed with " \* " denotes site check dimensions

All dimensions prefixed by \* are dimensions to the existing fabric and are subject to site checking prior to commencement of construction, manufacture or installation. All discrepancies to be reported to RKC immediately on discovery.

ISSUED FOR  
T E N D E R

All details referenced in call outs supercede general arrangement or larger depictions.

T1	10.06.15	RKC	-	DRAWING ISSUED FOR TENDER
Rev	Date	By	Chk	Comment



**RAPID KEYSTONE**  
CONSTRUCTION CONSULTANCY LTD

WWW.RKCCCLTD.CO.UK 0798585488 RKCC@RKCCCLTD.CO.UK

DESIGN ARCHITECTURE ENGINEERING CONSTRUCTION PLANNING  
SCHEDULING PROJECT MANAGEMENT SURVEYING SPECIFICATION  
BUILDING REGULATIONS CONTROL COSTS QUANTITY SURVEYING CIVIL  
ENGINEERING SITE MANAGEMENT STRUCTURAL ENGINEERING  
ENVIRONMENTAL ENGINEERING SETTING OUT CDM ESTIMATING

Client  
Penny / Tina  
Stonebank  
Darvey

Project Title

Proposed Garage and First Floor Extension

2 Rodmell Avenue

Salitdean

East Sussex BN2 8LT

Drawing Title

Proposed  
Roof  
Setting Out  
Plan

Drawn by: RKC	Scale: 1:50@A1	Date: 22.03.15
Designed by: -	Checked by: -	Approved by: -

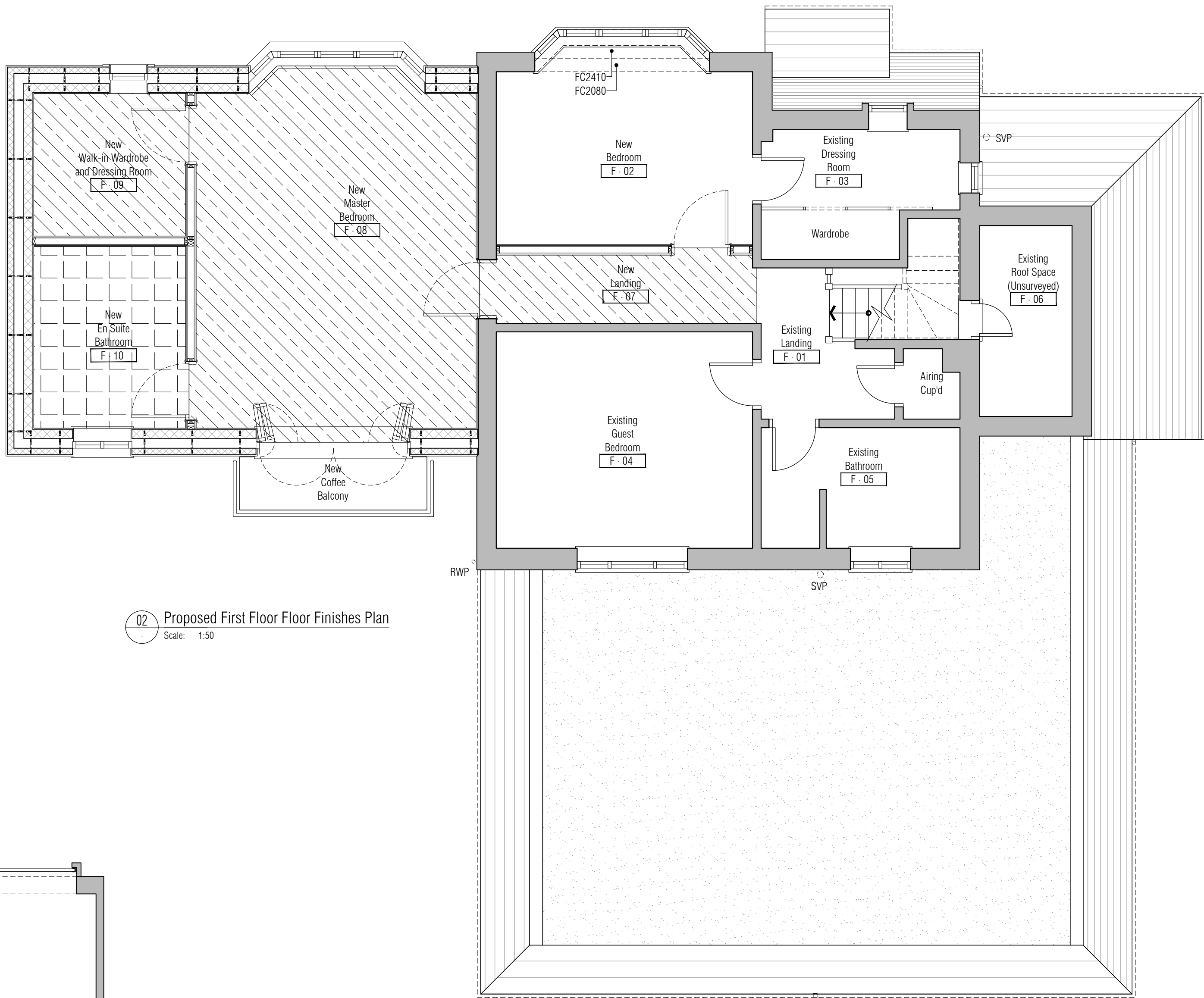
File Ref.: X:\307926-RISDA\ARCH\100-GM  
307926-A-133.DWG - T1 20:09:24:13:24:55

Drawing No. 307926-A-133	Rev. T1
-----------------------------	------------

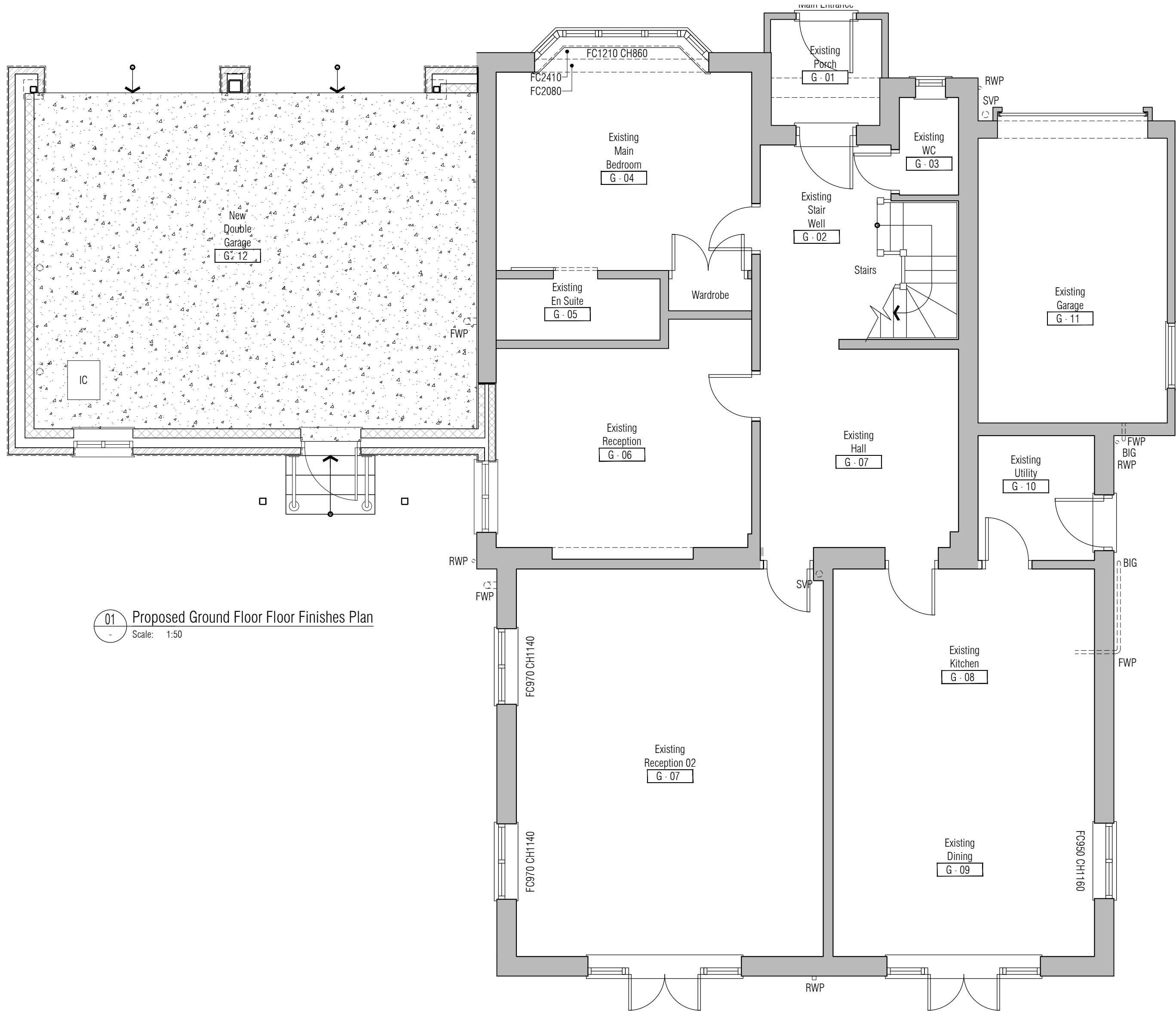
NB: All information based on supplied third party survey information.  
All discrepancies to be reported to RKC immediately upon discovery.

All Mechanical & Electrical and Structural information shown indicative only.  
Please refer to Mechanical & Electrical and Structural documentation.

NB: All levels are approximate and are subject to further site investigation prior to construction. All discrepancies to be reported to RKC immediately



02 Proposed First Floor Floor Finishes Plan  
Scale: 1:50



01 Proposed Ground Floor Floor Finishes Plan  
Scale: 1:50

NB: All information based on supplied third party survey information. All discrepancies to be reported to RKC immediately upon discovery.

All Mechanical & Electrical and Structural information shown indicative only. Please refer to Mechanical & Electrical and Structural documentation.

This drawing is for the purposes of legislative and regulatory compliance and is not to be used for construction under any circumstances.

NOTES: Do not scale this drawing. All dimensions to be checked on site prior to commencement or manufacture.  
The New Construction (Design and Management) Regulations 2015 come into force on 6 April 2015. The revised legislation applies to all projects including for the first time domestic jobs:  
• All projects must have a written construction phase plan  
• The role of CDM co-ordinator in the previous CDM Regs 2007 has been removed and replaced with a new role of principal designer.  
• There is a duty to make sure all persons doing the job have the right skills, knowledge, training and experience.  
• Some domestic and non-domestic projects will have to be notified to the Health & Safety Executive by the client.  
It is the responsibility of the Client to manage the Health and Safety of the project or nominate and agree a "Principal Designer".

Floor Finishes Legend  
All colours to be confirmed. Similar hatch in adjacent rooms does not necessarily represent or signify same colour. All changes in floor finish type, floor finish colour, carpet colour, etc. at doors to have metal door strips fitted. All rooms to have white gloss painted MDF skirting in profile to match existing.  
□ Denotes existing floor retained as is.  
••• Denotes tamped concrete slab finish - to be confirmed by Client  
▨ Denotes carpet - to be confirmed by Client  
▧ Denotes tiling - to be confirmed by Client

ISSUED FOR TENDER

All details referenced in call outs supercede general arrangement or larger depictions.

Rev	Date	By	Chk	Comment
11	10.06.15	RKC		DRAWING ISSUED FOR TENDER

**RAPID KEYSTONE**  
CONSTRUCTION CONSULTANCY LTD  
WWW.RKCC LTD.CO.UK 07965595488 RKC@RKCC LTD.CO.UK  
DESIGN ARCHITECTURE ENGINEERING CONSTRUCTION PLANNING  
SCHEDULING PROJECT MANAGEMENT SURVEYING SPECIFICATION  
BUILDING REGULATIONS CONTROLS COSTS QUANTITY SURVEYING CIVIL  
ENGINEERING SITE MANAGEMENT STRUCTURAL ENGINEERING  
ENVIRONMENTAL ENGINEERING SETTING OUT CDM ESTIMATING

Client  
Penny / Tina  
Stonebank  
Darvey

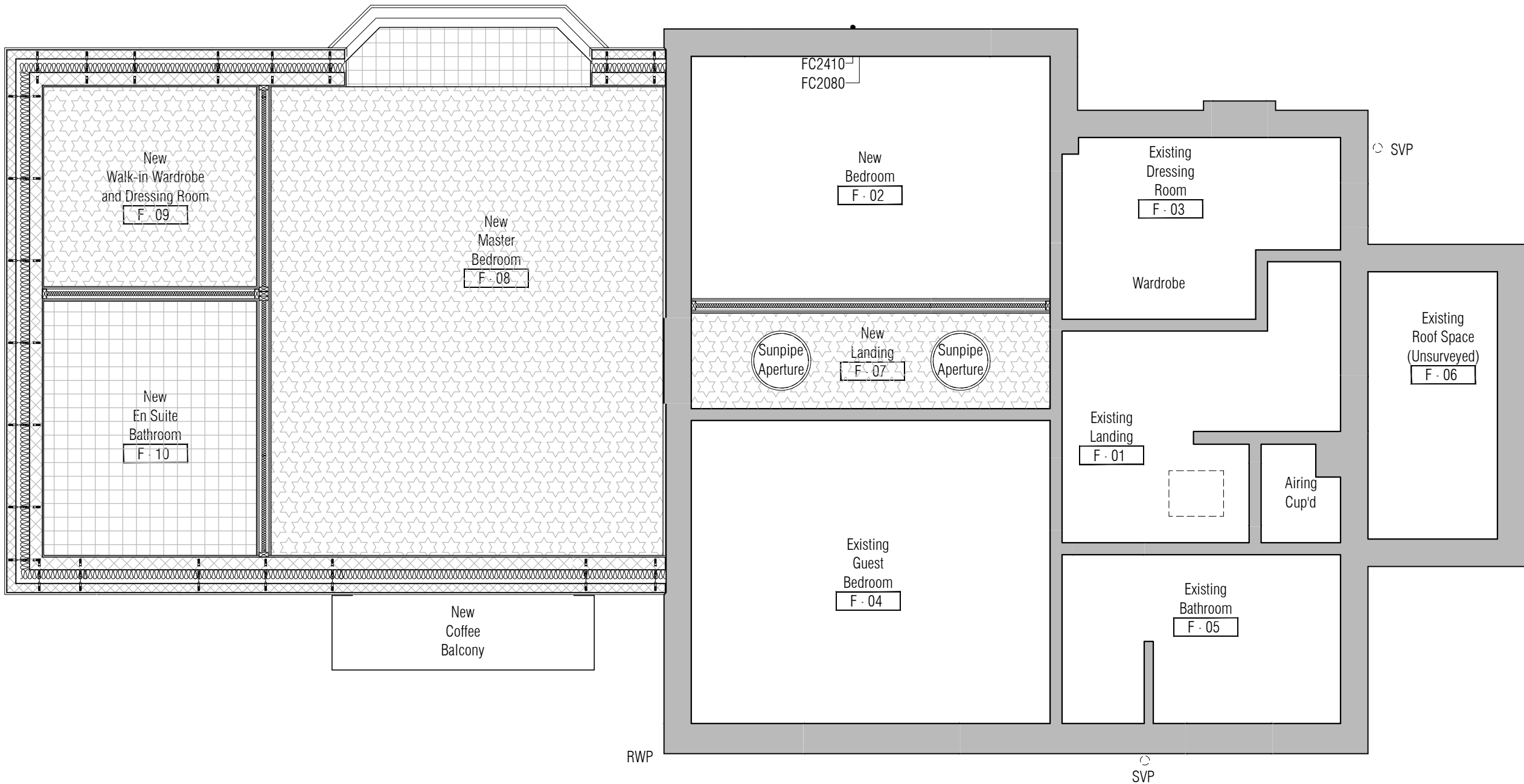
Project Title  
Proposed Garage and First Floor Extension  
2 Rodmell Avenue  
Saltdean  
East Sussex BN2 8LT

Drawing Title  
Proposed  
Floor  
Finishes  
Plans

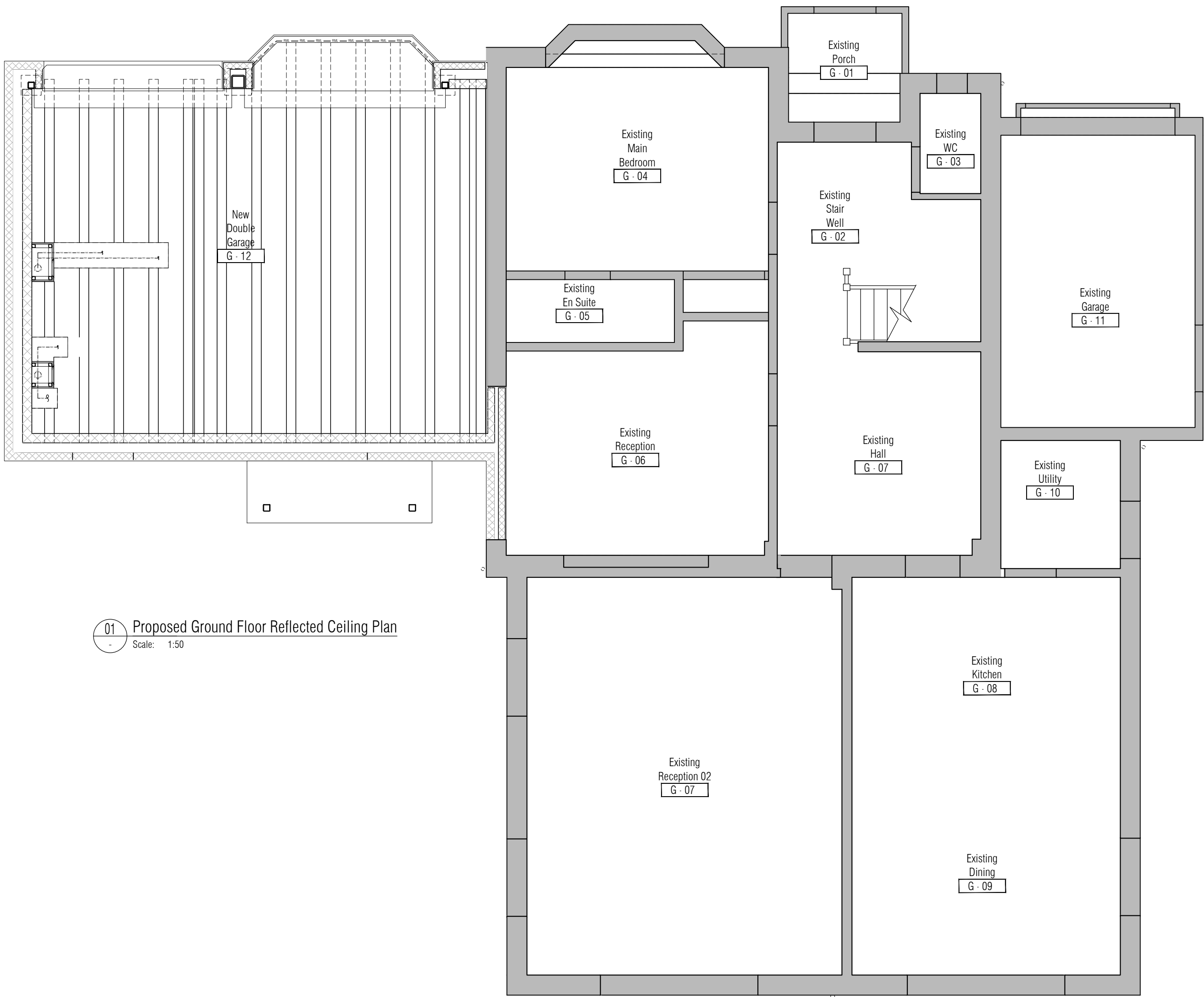
Drawn by: RKC	Scale: 1:50@A1	Date: 12.05.15
Designed by: -	Checked by: -	Approved by: -
File Ref.: 307926-A-141 DWG - 11		20.09.24.13.25.03
Drawing No. 307926-A-141		Rev. T1



NB: All levels are approximate and are subject to further site investigation prior to construction. All discrepancies to be reported to RKC immediately



02 Proposed First Floor Reflected Ceiling Plan  
Scale: 1:50



01 Proposed Ground Floor Reflected Ceiling Plan  
Scale: 1:50

NB: All information based on supplied third party survey information. All discrepancies to be reported to RKC immediately upon discovery.

All Mechanical & Electrical and Structural information shown indicative only. Please refer to Mechanical & Electrical and Structural documentation.

This drawing is for the purposes of legislative and regulatory compliance and is not to be used for construction under any circumstances.

NOTES: Do not scale this drawing. All dimensions to be checked on site prior to commencement or manufacture.  
The New Construction (Design and Management) Regulations 2015 come into force on 6 April 2015. The revised legislation applies to all projects including for the first time domestic jobs:  
• All projects must have a written construction phase plan  
• The role of CDM co-ordinator in the previous CDM Regs 2007 has been removed and replaced with a new role of principal designer.  
• There is a duty to make sure all persons doing the job have the right skills, knowledge, training and experience.  
• Some domestic and non-domestic projects will have to be notified to the Health & Safety Executive by the client.  
It is the responsibility of the Client to manage the Health and Safety of the project or nominate and agree a "Principal Designer".

Reflected Ceiling Plan Legend  
All colours to be confirmed. All rooms (except garage) to have painted coving to match existing  
□ Denotes existing ceiling retained as is.  
■ Denotes existing ceiling repainted and made good.  
□ Denotes moisture resistant plasterboard ceiling painted white emulsion  
□ Denotes beam and block floor construction painted 2 coats white weatherproof emulsion  
□ Denotes plasterboard ceiling painted white emulsion

ALL SPECIALIST EQUIPMENT INSTALLED IN ACCORDANCE WITH SPECIALIST MANUFACTURERS DESIGN AND DETAILS

ISSUED FOR TENDER

All details referenced in call outs supercede general arrangement or larger depictions.

Rev	Date	By	Chk	Comment
T1	10.06.15	RKC	-	DRAWING ISSUED FOR TENDER

**RAPID KEYSTONE**  
CONSTRUCTION CONSULTANCY LTD  
WWW.RKCC LTD.CO.UK 07985595488 RKCC@RKCC LTD.CO.UK  
DESIGN ARCHITECTURE ENGINEERING CONSTRUCTION PLANNING  
SCHEDULING PROJECT MANAGEMENT SURVEYING SPECIFICATION  
BUILDING REGULATIONS CONTROLS COSTS QUANTITY SURVEYING CIVIL  
ENGINEERING SITE MANAGEMENT STRUCTURAL ENGINEERING  
ENVIRONMENTAL ENGINEERING SETTING OUT CDM ESTIMATING

Client	Penny / Tina Stonebank Darvey	
Project Title	Proposed Garage and First Floor Extension 2 Rodmell Avenue Saltdean East Sussex BN2 8LT	
Drawing Title	Proposed Reflected Ceiling Plans	
Drawn by:	Scale:	Date:
RKC	1:50@A1	13.05.15
Designed by:	Checked by:	Approved by:
-	-	-
File Ref.: X:\307926 RODMELL\ARCH\01.DWG - T1		20.09.24 13:25:10
Drawing No.	Rev.	
307926-A-151	T1	





NOTES: Do not scale this drawing. All dimensions to be checked on site prior to commencement or manufacture.

The New Construction (Design and Management) Regulations 2015 come into force on 6 April 2015. The revised legislation applies to all projects including for the first time domestic jobs:

- All projects must have a written construction phase plan
- The role of CDM co-ordinator in the previous CDM Regs 2007 has been removed and replaced with a new role of principal designer.
- There is a duty to make sure all persons doing the job have the right skills, knowledge, training and experience.
- Some domestic and non-domestic projects will have to be notified to the Health & Safety Executive by the client.

It is the responsibility of the Client to manage the Health and Safety of the project or nominate and agree a "Principal Designer".

KEY TO EQUIPOTENTIAL BONDING

- EARTHING POINT
- LIGHTING
- A MODULAR LUMINAIRE
  - A CEILING MOUNTED LUMINAIRE
  - A WALL MOUNTED LUMINAIRE
  - A SURFACE MOUNTED LINEAR FLUORESCENT LUMINAIRE
  - A WALL MOUNTED LINEAR FLUORESCENT LUMINAIRE
- LIGHTSWITCH
- 2 WAY LIGHTSWITCH
  - 3 WAY LIGHTSWITCH
  - 2 WAY DIMMER SWITCH
  - 3 WAY DIMMER SWITCH
  - INTERMEDIATE LIGHTSWITCH
  - PULL CORD
- LIGHTING CIRCUIT SWITCH LINE
- LIGHTING CIRCUIT POWER LINE
- FIRE ALARM
- SMOKE DETECTOR WITH SOUNDER AND INDICATOR BEACON
  - ELECTRONIC SOUNDER
- POWER
- SINGLE 13A SWITCHED SOCKET OUTLET
  - DOUBLE 13A SWITCHED SOCKET OUTLET
  - SWITCHED FUSED CONNECTION UNIT
  - ISOLATOR RATING/NO. POLES AS INDICATED
  - CIRCUIT LINE
- SECURITY
- PRESENCE DETECTOR (PIR)
- DATA
- TELEPHONE OUTLET
  - TV OUTLET

ISSUED FOR  
TENDER

All details referenced in call outs supercede general arrangement or larger depictions.

Rev	Date	By	Chk	Comment
T1	10.06.15	RKC	-	DRAWING ISSUED FOR TENDER

**RAPID KEYSTONE**  
CONSTRUCTION CONSULTANCY LTD

WWW.RKCC LTD.CO.UK 07985595488 RKC@RKCC LTD.CO.UK

DESIGN ARCHITECTURE ENGINEERING CONSTRUCTION PLANNING  
SCHEDULING PROJECT MANAGEMENT SURVEYING SPECIFICATION  
BUILDING REGULATIONS CONTROLS COSTS QUANTITY SURVEYING CIVIL  
ENGINEERING SITE MANAGEMENT STRUCTURAL ENGINEERING  
ENVIRONMENTAL ENGINEERING SETTING OUT CDM ESTIMATING

Client

Penny / Tina  
Stonebank  
Darvey

Project Title

Proposed Garage and First Floor Extension  
2 Rodmell Avenue  
Saltdean  
East Sussex BN2 8LT

Drawing Title

Proposed  
Ground Floor  
Part P Electrical  
Plan

Drawn by: RKC	Scale: 1:50@A1	Date: 18.05.15
Designed by: -	Checked by: -	Approved by: -

File Ref.: 307926-A-181 DWG - T1 20.09.24.13.25.25

Drawing No. 307926-A-181	Rev. T1
-----------------------------	------------

NOTES: Do not scale this drawing. All dimensions to be checked on site prior to commencement or manufacture.

The New Construction (Design and Management) Regulations 2015 come into force on 6 April 2015. The revised legislation applies to all projects including for the first time domestic jobs:

- All projects must have a written construction phase plan
- The role of CDM co-ordinator in the previous CDM Regs 2007 has been removed and replaced with a new role of principal designer.
- There is a duty to make sure all persons doing the job have the right skills, knowledge, training and experience.
- Some domestic and non-domestic projects will have to be notified to the Health & Safety Executive by the client.

It is the responsibility of the Client to manage the Health and Safety of the project or nominate and agree a "Principal Designer".

KEY TO EQUIPOTENTIAL BONDING

- ⏏ EARTHING POINT
- LIGHTING
- A MODULAR LUMINAIRE
  - Ⓐ CEILING MOUNTED LUMINAIRE
  - Ⓐ WALL MOUNTED LUMINAIRE
  - Ⓐ SURFACE MOUNTED LINEAR FLUORESCENT LUMINAIRE
  - Ⓐ WALL MOUNTED LINEAR FLUORESCENT LUMINAIRE
- ⚡ LIGHTSWITCH
- 2 WAY LIGHTSWITCH
  - 3 WAY LIGHTSWITCH
  - 2 WAY DIMMER SWITCH
  - 3 WAY DIMMER SWITCH
  - INTERMEDIATE LIGHTSWITCH
- ⚡ PULL CORD
- ⚡ LIGHTING CIRCUIT SWITCH LINE
- ⚡ LIGHTING CIRCUIT POWER LINE
- FIRE ALARM
- 📢 SMOKE DETECTOR WITH SOUNDER AND INDICATOR BEACON
  - 📢 ELECTRONIC SOUNDER
- POWER
- 🔌 SINGLE 13A SWITCHED SOCKET OUTLET
  - 🔌 DOUBLE 13A SWITCHED SOCKET OUTLET
  - 🔌 SWITCHED FUSED CONNECTION UNIT
  - 🔌 ISOLATOR RATING/NO. POLES AS INDICATED
  - 🔌 CIRCUIT LINE
- SECURITY
- 🔍 PRESENCE DETECTOR (PIR)
- DATA
- 📶 TELEPHONE OUTLET
  - 📶 TV OUTLET

ISSUED FOR  
TENDER

All details referenced in call outs supercede general arrangement or larger depictions.

Rev	Date	By	Chk	Comment
T1	10.06.15	RKC	-	DRAWING ISSUED FOR TENDER

**RAPID KEYSTONE**  
CONSTRUCTION CONSULTANCY LTD

WWW.RKCCCLTD.CO.UK 077965595488 RKC@RKCCCLTD.CO.UK

DESIGN ARCHITECTURE ENGINEERING CONSTRUCTION PLANNING  
SCHEDULING PROJECT MANAGEMENT SURVEYING SPECIFICATION  
BUILDING REGULATIONS CONTROLS COSTS QUANTITY SURVEYING CIVIL  
ENGINEERING SITE MANAGEMENT STRUCTURAL ENGINEERING  
ENVIRONMENTAL ENGINEERING SETTING OUT CDM ESTIMATING

Client		
Penny / Tina Stonebank Darvey		
Project Title		
Proposed Garage and First Floor Extension 2 Rodmell Avenue Saltdean East Sussex BN2 8LT		
Drawing Title		
Proposed First Floor Part P Electrical Plan		
Drawn by:	Scale:	Date:
RKC	1:50@A1	18.05.15
Designed by:	Checked by:	Approved by:
-	-	-
File Ref.: X:\307926 RODMELL\ARCH\307926-182.DWG - T1		20.09.24 13:25:31
Drawing No. 307926-A-182		Rev. T1

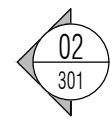




This drawing is for the purposes of legislative and regulatory compliance and is not to be used for construction under any circumstances.

- All projects must have a written construction phase plan
- The role of CDM co-ordinator in the previous CDM Regs 2007 has been removed and replaced with a new role of principal designer.
- There is a duty to make sure all persons doing the job have the right skills, knowledge, training and experience.
- Some domestic and non-domestic projects will have to be notified to the Health & Safety Executive by the client.

It is the responsibility of the Client to manage the Health and Safety of the project or nominate and agree a "Principal Designer".



All details referenced in call outs supercede general arrangement or larger depictions.

T1	10.06.15	RKC	-	DRAWING ISSUED FOR TENDER
Rev	Date	By	Chk	Comment



**RAPID KEYSTONE**  
CONSTRUCTION CONSULTANCY LTD

WWW.RKCC LTD.CO.UK 07955585480 RKCC@RKCC LTD.CO.UK

DESIGN ARCHITECTURE ENGINEERING CONSTRUCTION PLANNING  
SCHEDULING PROJECT MANAGEMENT SURVEYING SPECIFICATION  
BUILDING REGULATIONS CONTROLS COSTS QUANTITY SURVEYING CIVIL  
ENGINEERING SITE MANAGEMENT STRUCTURAL ENGINEERING  
ENVIRONMENTAL ENGINEERING SETTING OUT CDM ESTIMATING

Drawing Title
Existing
Section
01

Drawn by: RKC	Scale: 1:50@A1	Date: 09.04.15
Designed by: -	Checked by: -	Approved by: -

File Ref.: X:\307926-RISDA\ARCH\200-SEC,  
307926-A-200.DWG - T1 20:09:24:13:25:54

Drawing No. 307926-A-200	Rev. T1
-----------------------------	------------

All Mechanical & Electrical and Structural information shown indicative only.  
Please refer to Mechanical & Electrical and Structural documentation.



NB: All levels are approximate and are subject to further site investigation prior to construction. All discrepancies to be reported to RKC immediately

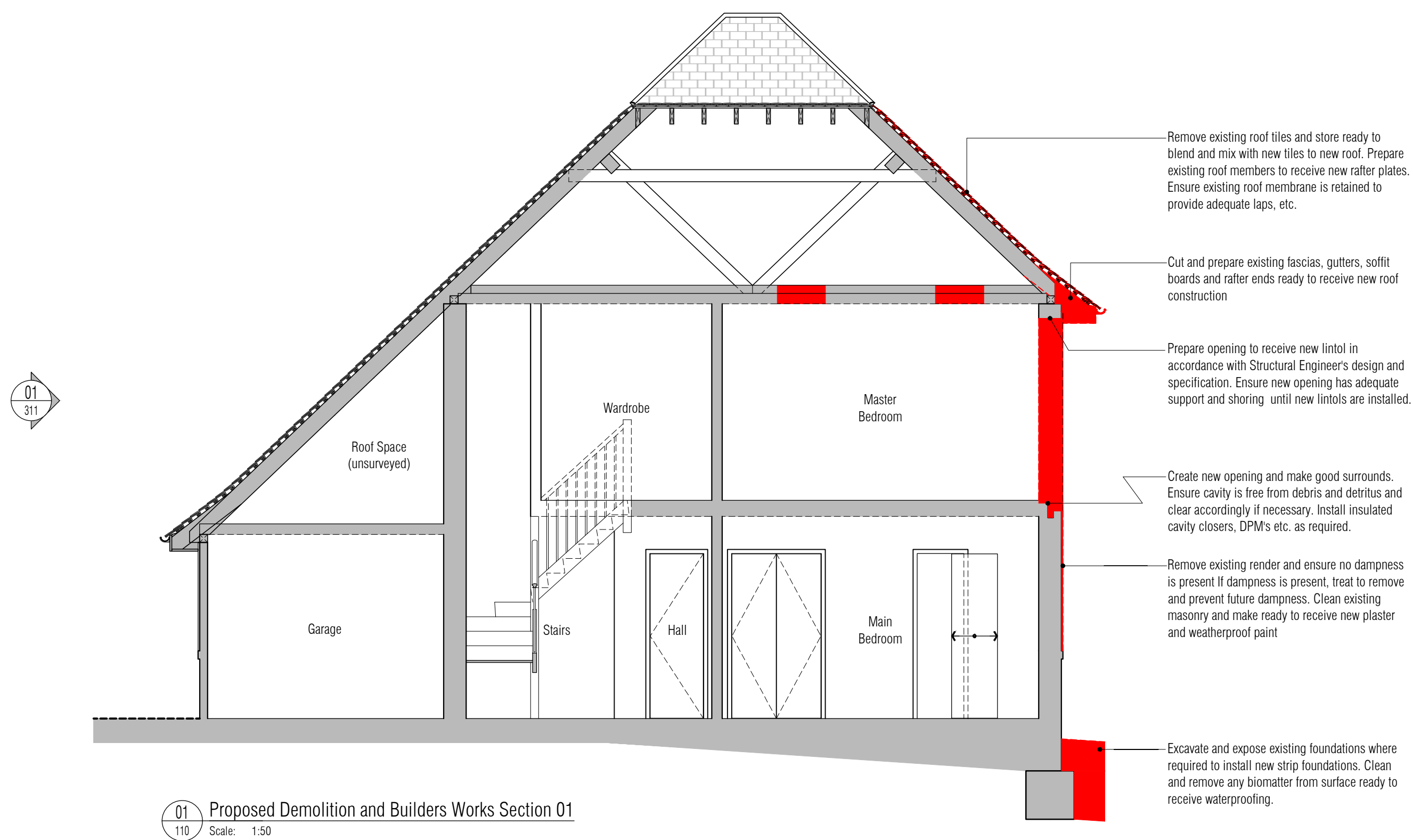
This drawing is for the purposes of legislative and regulatory compliance and is not to be used for construction under any circumstances.

**NOTES:** Do not scale this drawing. All dimensions to be checked on site prior to commencement or manufacture.

The New Construction (Design and Management) Regulations 2015 come into force on 6 April 2015. The revised legislation applies to all projects including for the first time domestic jobs:

- All projects must have a written construction phase plan
- The role of CDM co-ordinator in the previous CDM Regs 2007 has been removed and replaced with a new role of principal designer.
- There is a duty to make sure all persons doing the job have the right skills, knowledge, training and experience.
- Some domestic and non-domestic projects will have to be notified to the Health & Safety Executive by the client.

It is the responsibility of the Client to manage the Health and Safety of the project or nominate and agree a "Principal Designer".



NB: All information based on supplied third party survey information.  
All discrepancies to be reported to RKC immediately upon discovery.

All Mechanical & Electrical and Structural information shown indicative only.  
Please refer to Mechanical & Electrical and Structural documentation.

ISSUED FOR  
T E N D E R

All details referenced in call outs supersede general arrangement or larger depictions.

All details referenced in call outs supersede general arrangement or larger depictions.

T1	10.06.15	RKC	-	DRAWING ISSUED FOR TENDER
Rev	Date	By	Chk	Comment



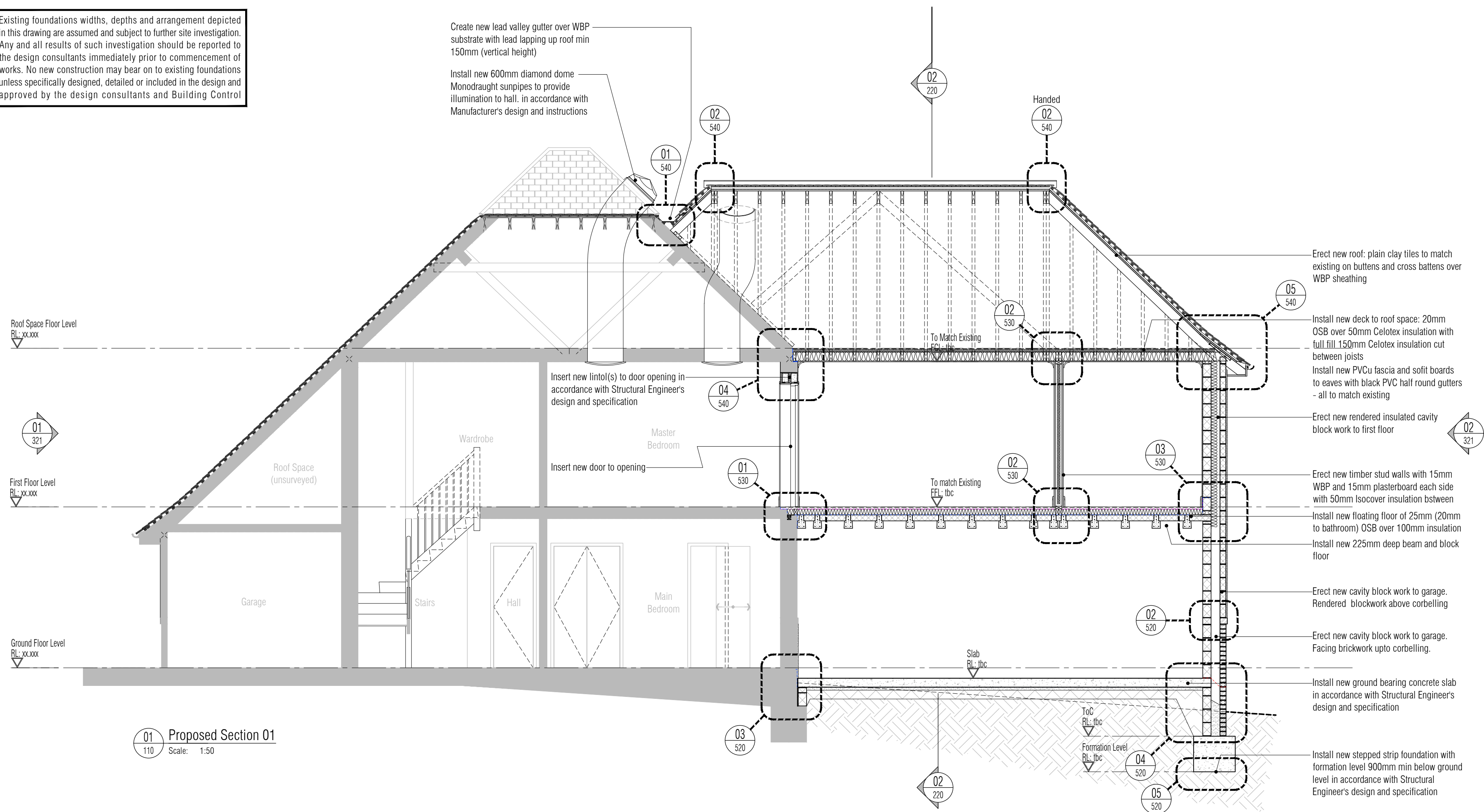
Client		
Penny / Tina		
Stonebank		
Darvey		
Project Title		
Proposed Garage and First Floor Extension		
2 Rodmell Avenue		
Saltdan		
East Sussex BN2 8LT		
Drawing Title		
Proposed		
Demolition and Builders Works		
Section 01		
Drawn by:	Scale:	Date:
RKC	1:50@A1	14.04.15
Designed by:	Checked by:	Approved by:
-	-	-
File Ref: J:\201506\RD000\RD000\001.DWG - T1		
20.09.24 13:25:59		
Drawing No.	Rev.	
307926-A-210	T1	



Existing foundations widths, depths and arrangement depicted in this drawing are assumed and subject to further site investigation. Any and all results of such investigation should be reported to the design consultants immediately prior to commencement of works. No new construction may bear on to existing foundations unless specifically designed, detailed or included in the design and approved by the design consultants and Building Control

Create new lead valley gutter over WBP substrate with lead lapping up roof min 150mm (vertical height)

Install new 600mm diamond dome Monodraught sunpipes to provide illumination to hall, in accordance with Manufacturer's design and instructions



NB: All levels are approximate and are subject to further site investigation prior to construction. All discrepancies to be reported to RKC immediately

This drawing is for the purposes of legislative and regulatory compliance and is not to be used for construction under any circumstances.

**NOTES:** Do not scale this drawing. All dimensions to be checked on site prior to commencement or manufacture.

**The New Construction (Design and Management) Regulations 2015** come into force 6 April 2015. The revised legislation applies to all projects including for the first time domestic jobs:

- All projects must have a written construction phase plan
- The role of CDM co-ordinator in the previous CDM Regs 2007 has been removed and replaced with a new role of principal designer.
- There is a duty to make sure all persons doing the job have the right skills, knowledge, training and experience.
- Some domestic and non-domestic projects will have to be notified to the Health & Safety Executive by the client.

It is the responsibility of the Client to manage the Health and Safety of the project or nominate and agree a "Principal Designer".

ISSUED FOR  
TENDER

All details referenced in call outs supersede general arrangement or larger depictions.

T1	10.06.15	RKC	-	DRAWING ISSUED FOR TENDER
Rev	Date	By	Chk	Comment

**RAPID KEYSTONE**  
CONSTRUCTION CONSULTANCY LTD

WWW.RKCCCLTD.CO.UK 07965585480 RKCC@RKCCCLTD.CO.UK

DESIGN ARCHITECTURE ENGINEERING CONSTRUCTION PLANNING  
SCHEDULING PROJECT MANAGEMENT COSTS QUANTITY SURVEYING CIVIL  
BUILDING REGULATIONS CONTROLS COSTS QUANTITY SURVEYING CIVIL  
ENGINEERING SITE MANAGEMENT STRUCTURAL ENGINEERING  
ENVIRONMENTAL ENGINEERING SETTING OUT CM ESTIMATING

Client  
Penny / Tina  
Stonebank  
Darvey

Project Title  
Proposed Garage and First Floor Extension  
2 Rodmell Avenue  
Saltdean  
East Sussex BN2 8LT

Drawing Title  
Proposed  
Sections  
01 & 02

Drawn by: RKC	Scale: 1:50@A1	Date: 14.04.15
Designed by: -	Checked by: -	Approved by: -

File Ref.: X:\307926-RD\AN\ARCH\200-SE.D 20:09:24:13:26:09  
 Drawing No. 307926-A-220 Rev. T1

NB: All information based on supplied third party survey information.  
All discrepancies to be reported to RKC immediately upon discovery.

All Mechanical & Electrical and Structural information shown indicative only.  
Please refer to Mechanical & Electrical and Structural documentation.



**NOTES:** Do not scale this drawing. All dimensions to be checked on site prior to commencement of manufacture.

The New Construction (Design and Management) Regulations 2015 come into force on 6 April 2015. The revised legislation applies to all projects including for the first time domestic jobs:

- All projects must have a written construction phase plan
- The role of CDM co-ordinator in the previous CDM Regs 2007 has been removed and replaced with a new role of principal designer.
- There is a duty to make sure all persons doing the job have the right skills, knowledge, training and experience.
- Some domestic and non-domestic projects will have to be notified to the Health & Safety Executive by the client.

It is the responsibility of the Client to manage the Health and Safety of the project or nominate and agree a 'Principal Designer'.



All Mechanical & Electrical and Structural information shown indicative only.  
Please refer to Mechanical & Electrical and Structural documentation.

NB: All information based on supplied third party survey information.  
All discrepancies to be reported to RKC immediately upon discovery.

ISSUED FOR  
T E N D E R

All details referenced in call outs supersede general arrangement or larger depictions

T1	10.06.15	RKC	-	DRAWING ISSUED FOR TENDER
Rev	Date	By	Chk	Comment

**RAPID KEYSTONE**  
CONSTRUCTION CONSULTANCY LTD

WWW.RKCC LTD.CO.UK 07985585488 RKCC@RKCC LTD.CO.UK

DESIGN ARCHITECTURE ENGINEERING CONSTRUCTION PLANNING  
SCHEDULING PROJECT MANAGEMENT SURVEYING SPECIFICATION  
BUILDING REGULATIONS CONTROLS COSTS QUANTITY SURVEYING CIVIL  
ENGINEERING SITE MANAGEMENT STRUCTURAL ENGINEERING  
ENVIRONMENTAL ENGINEERING SETTING OUT CDM ESTIMATING

Client	Penny / Tina
	Stonebank
	Darvey

Project Title  
Proposed Garage and First Floor Extension  
2 Rodmell Avenue  
Saltdean  
East Sussex BN2 8LT

Drawing Title
Existing
Front East and
Rear West
Elevations

Drawn by: RKC	Scale: 1:50@A1	Date: 31.01.15
------------------	-------------------	-------------------

Designed by:	Checked by:	Approved by:
-	-	-

File Ref.: X:\307926-RIDDAN\ARCH\300-ELE\ 307926-A-300.DWG - T1 20:09:24:13:26:26

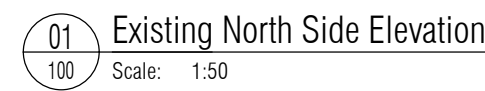
Drawing No. 307926-A-300	Rev. T1
-----------------------------	------------

**NOTES: Do not scale this drawing. All dimensions to be checked on site prior to commencement of manufacture.**

The New Construction (Design and Management) Regulations 2015 come into force on 6 April 2015. The revised legislation applies to all projects including for the first time domestic jobs:

- All projects must have a written construction phase plan
- The role of CDM co-ordinator in the previous CDM Regs 2007 has been removed and replaced with a new role of principal designer.
- There is a duty to make sure all persons doing the job have the right skills, knowledge, training and experience
- Some domestic and non-domestic projects will have to be notified to the Health & Safety Executive by the client.

It is the responsibility of the Client to manage the Health and Safety of the project or nominate and agree a 'Principal Designer'.



All Mechanical & Electrical and Structural information shown indicative only.  
Please refer to Mechanical & Electrical and Structural documentation.

Scale: 1:50



All details referenced in call outs supercede general arrangement or larger depictions.

T1	10.06.15	RKC	-	DRAWING ISSUED FOR TENDER
Rev	Date	By	Chk	Comment

**RAPID KEYSTONE**  
CONSTRUCTION CONSULTANCY LTD  
WWW.RKCCCLTD.CO.UK 07965585488 RKCC@RKCCCLTD.CO.UK  
DESIGN ARCHITECTURE ENGINEERING CONSTRUCTION PLANNING  
SCHEDULING PROJECT MANAGEMENT SURVEYING SPECIFICATION  
BUILDING REGULATIONS CONTROLS COSTS QUANTITY SURVEYING CIVIL  
ENGINEERING SITE MANAGEMENT STRUCTURAL ENGINEERING  
ENVIRONMENTAL ENGINEERING SETTING OUT CDM ESTIMATING

File Ref.: X:\307926-PROD\MARCH\300-ELD,  
307926-A-301.DWG - T1 20:09:24:13:26:31

Rev.  
T1



NB: All levels are approximate and are subject to further site investigation prior to construction. All discrepancies to be reported to RKC immediately

This drawing is for the purposes of legislative and regulatory compliance and is not to be used for construction under any circumstances.

NOTES: Do not scale this drawing. All dimensions to be checked on site prior to commencement or manufacture

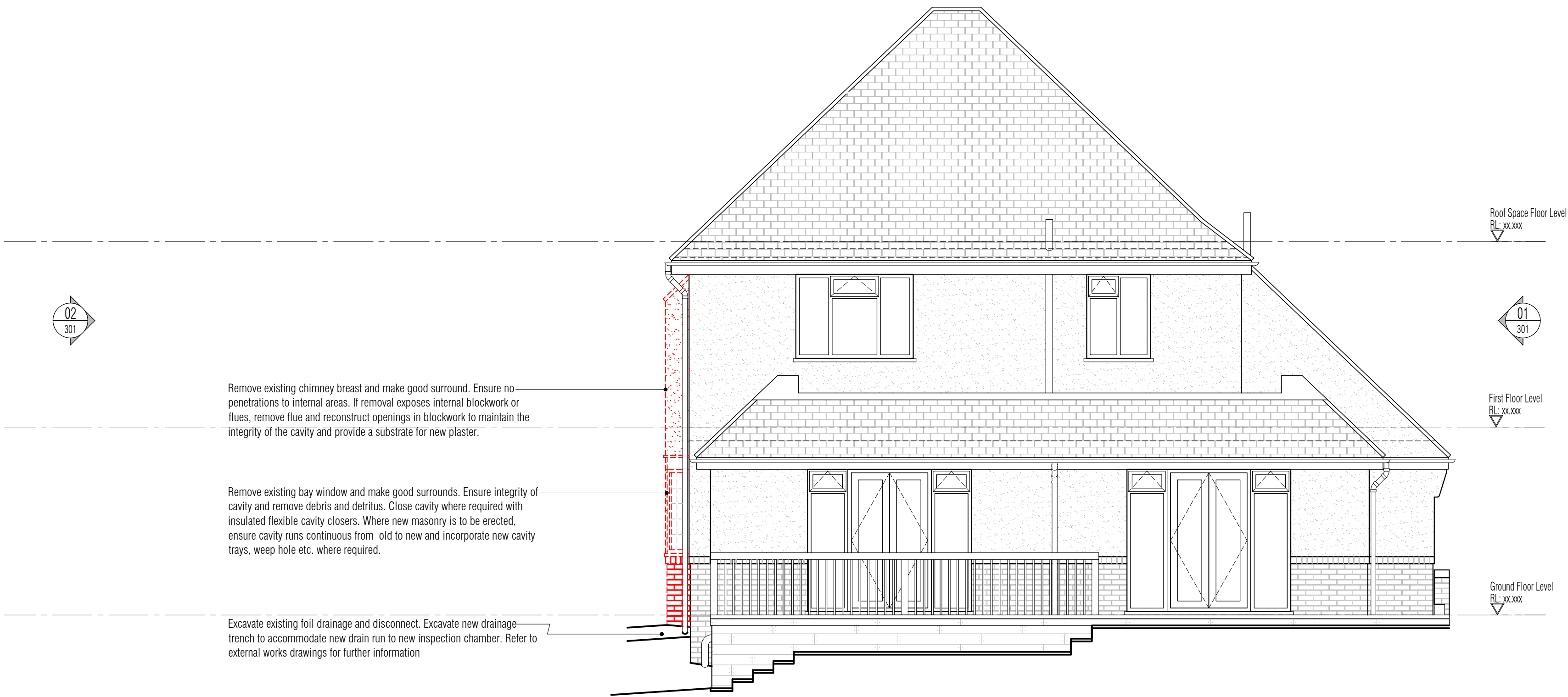
The New Construction (Design and Management) Regulations 2015 come into force on 6 April 2015. The revised legislation applies to all projects including for the first time domestic jobs:

- All projects must have a written construction phase plan
- The role of CDM co-ordinator in the previous CDM Regs 2007 has been removed and replaced with a new role of principal designer.
- There is a duty to make sure all persons doing the job have the right skills, knowledge, training and experience.
- Some domestic and non-domestic projects will have to be notified to the Health & Safety Executive by the client.

It is the responsibility of the Client to manage the Health and Safety of the project or nominate and agree a "Principal Designer".



01 Proposed Front East Demolition and Builders Works Elevation  
Scale: 1:50



02 Proposed Rear West Demolition and Builders Works Elevation  
Scale: 1:50

All Mechanical & Electrical and Structural information shown indicative only  
Please refer to Mechanical & Electrical and Structural documentation

NB: All information based on supplied third party survey information.  
All discrepancies to be reported to RKC immediately upon discovery.

ISSUED FOR  
TENDER

All details referenced in call outs supercede general arrangement or larger depictions.

Rev	Date	By	Chk	Comment
T1	10.06.15	RKC	-	DRAWING ISSUED FOR TENDER

**RAPID KEYSTONE**  
CONSTRUCTION CONSULTANCY LTD

WWW.RKCCLT.CO.UK 07965595488 RKC@RKCCLT.CO.UK

DESIGN ARCHITECTURE ENGINEERING CONSTRUCTION PLANNING  
SCHEDULING PROJECT MANAGEMENT SURVEYING SPECIFICATION  
BUILDING REGULATIONS CONTROLS COSTS QUANTITY SURVEYING CIVIL  
ENGINEERING SITE MANAGEMENT STRUCTURAL ENGINEERING  
ENVIRONMENTAL ENGINEERING SETTING OUT CDM ESTIMATING

Client	Penny / Tina Stonebank Darvey		
Project Title	Proposed Garage and First Floor Extension 2 Rodmell Avenue Saltdean East Sussex BN2 8LT		
Drawing Title	Proposed Front East and Rear West Demolition and Builders Works Elevations		
Drawn by: RKC	Scale: 1:50@A1	Date: 31.01.15	
Designed by: -	Checked by: -	Approved by: -	
File Ref: X:\307926 RODMARCH2015.DWG - T1 20.09.24.13:26:38			
Drawing No. 307926-A-310	Rev. T1		

NB: All levels are approximate and are subject to further site investigation prior to construction. All discrepancies to be reported to RKC immediately

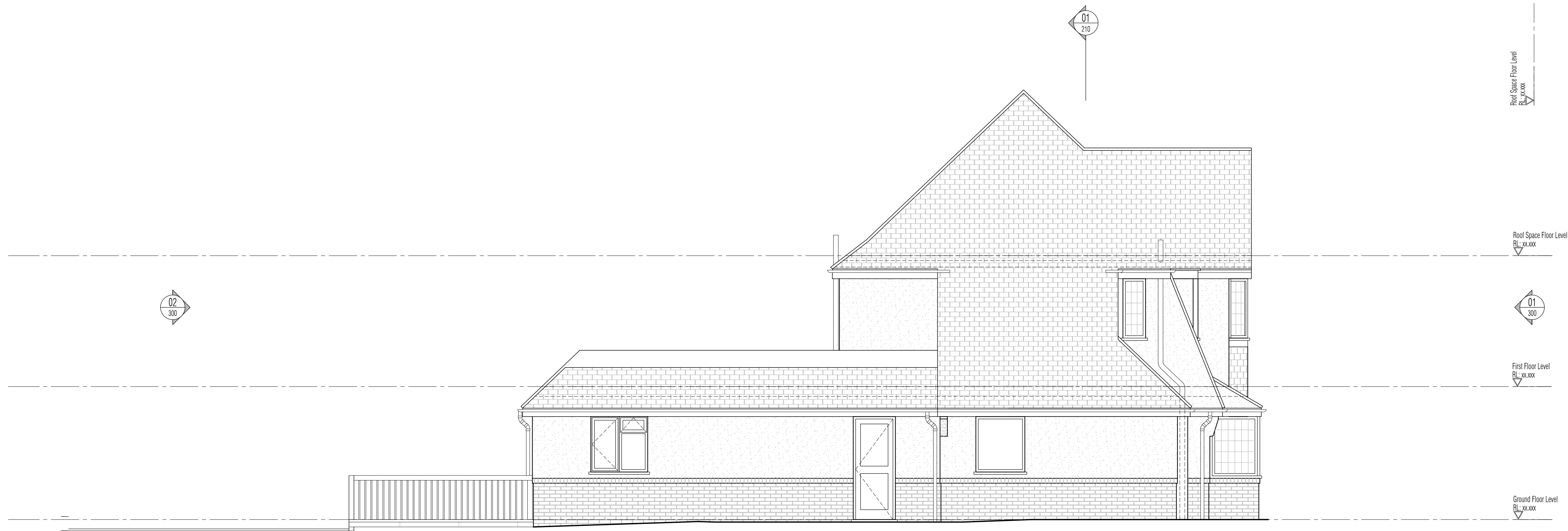
This drawing is for the purposes of legislative and regulatory compliance and is not to be used for construction under any circumstances.

**NOTES:** Do not scale this drawing. All dimensions to be checked on site prior to commencement or manufacture.

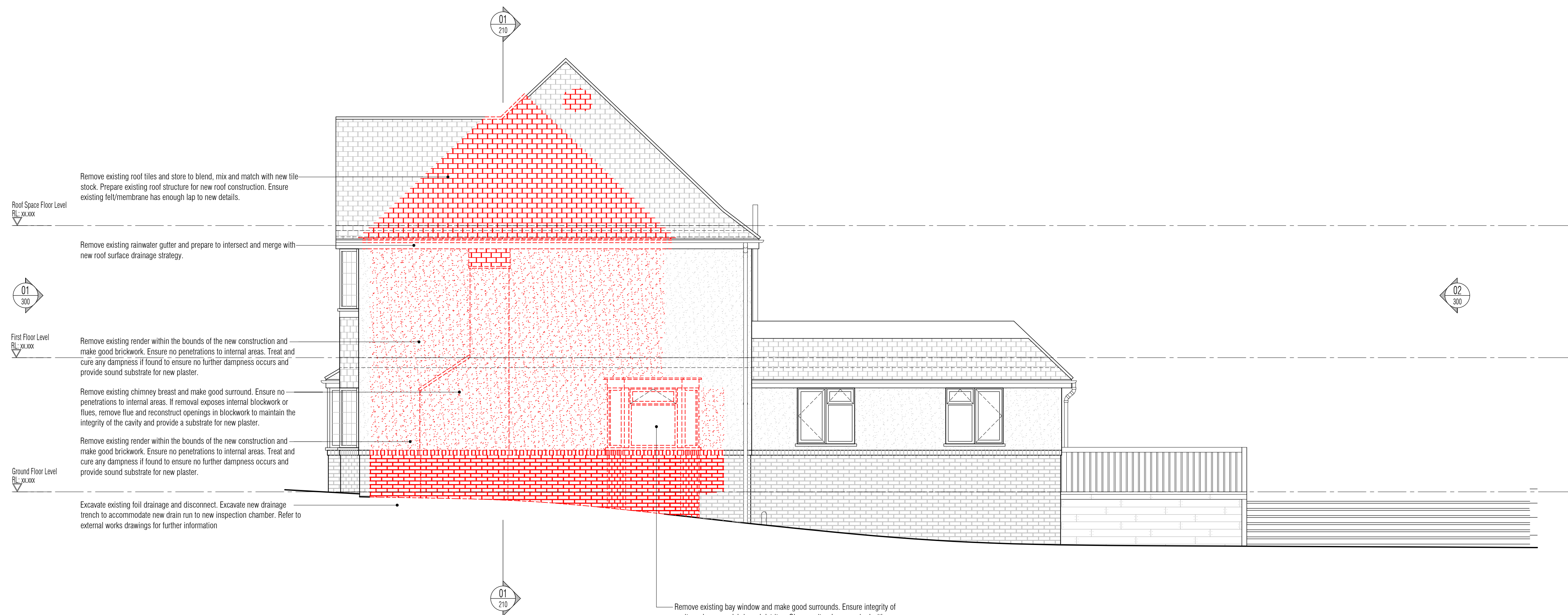
**The New Construction (Design and Management) Regulations 2015** come into force on 6 April 2015. The revised legislation applies to all projects including for the first time domestic jobs:

- All projects must have a written construction phase plan
- The role of CDM co-ordinator in the previous CDM Regs 2007 has been removed and replaced with a new role of principal designer.
- There is a duty to make sure all persons doing the job have the right skills, knowledge, training and experience.
- Some domestic and non-domestic projects will have to be notified to the Health & Safety Executive by the client.

It is the responsibility of the Client to manage the Health and Safety of the project or nominate and agree a "Principal Designer".



01 Proposed North Side Demolition and Builders Works Elevation  
100 Scale: 1:50



02 Proposed South Side Demolition and Builders Works Elevation  
100 Scale: 1:50

NB: All information based on supplied third party survey information.  
All discrepancies to be reported to RKC immediately upon discovery.

All Mechanical & Electrical and Structural information shown indicative only.  
Please refer to Mechanical & Electrical and Structural documentation.

ISSUED FOR  
T E N D E R

All details referenced in call outs supercede general arrangement or larger depictions.

T1	10.06.15	RKC	-	DRAWING ISSUED FOR TENDER
Rev	Date	By	Chk	Comment

**RAPID KEYSTONE**  
CONSTRUCTION CONSULTANCY LTD

WWW.RKCCLT.CO.UK 07985585488 RKCC@RKCCLT.CO.UK

DESIGN ARCHITECTURE ENGINEERING CONSTRUCTION PLANNING  
SCHEDULING PROJECT MANAGEMENT SURVEYING SPECIFICATION  
BUILDING REGULATIONS CONTROLS COSTS QUANTITY SURVEYING CIVIL  
ENGINEERING SITE MANAGEMENT STRUCTURAL ENGINEERING  
ENVIRONMENTAL ENGINEERING SETTING OUT COM ESTIMATING

Client  
Penny / Tina  
Stonebank  
Darvey

Project Title  
Proposed Garage and First Floor Extension  
2 Rodmell Avenue  
Saltdean  
East Sussex BN2 8LT

Drawing Title

Proposed  
South Side and North Side  
Demolition and Builders Works  
Elevations

Drawn by: RKC	Scale: 1:50@A1	Date: 31.01.15
Designed by: -	Checked by: -	Approved by: -

File Ref.: X:\307926-PROD\ARCH\300-ELLE\ 307926-A-311.DWG - T1 20:09:24:13:26:45

Drawing No. 307926-A-311	Rev. T1
-----------------------------	------------



**NOTES:** Do not scale this drawing. All dimensions to be checked on site prior to commencement of manufacture.

The New Construction (Design and Management) Regulations 2015 come into force on 6 April 2015. The revised legislation applies to all projects including for the first time domestic jobs:

- All projects must have a written construction phase plan
- The role of CDM co-ordinator in the previous CDM Regs 2007 has been removed and replaced with a new role of principal designer.
- There is a duty to make sure all persons doing the job have the right skills, knowledge, training and experience.
- Some domestic and non-domestic projects will have to be notified to the Health & Safety Executive by the client.

It is the responsibility of the Client to manage the Health and Safety of the project or nominate and agree a 'Principal Designer'.



Scale: 1:50



All details referenced in call outs supercede general arrangement or larger depictions.

**RAPID KEYSTONE**  
CONSTRUCTION CONSULTANCY LTD

WWW.RKCCCLTD.CO.UK 0796555488 RKCC@RKCCCLTD.CO.UK

DESIGN ARCHITECTURE ENGINEERING CONSTRUCTION PLANNING  
SCHEDULING PROJECT MANAGEMENT SURVEYING SPECIFICATION  
BUILDING REGULATIONS CONTROLS COSTS QUANTITY SURVEYING CIVIL  
ENGINEERING SITE MANAGEMENT STRUCTURAL ENGINEERING  
ENVIRONMENTAL ENGINEERING SETTING OUT CDM ESTIMATING

Project Title  
Proposed Garage and First Floor Extension  
2 Rodmell Avenue  
Saltdean  
East Sussex BN2 8LT

Drawn by: RKC	Scale: 1:50@A1	Date: 15.02.15
Designed by: -	Checked by: -	Approved by: -

File Ref.: X:\307926-PROD\AWCH\300-ELD\307926-A-320.DWG - T1 20:09:24:13:26:51

Drawing No. 307926-A-320	Rev. T1
-----------------------------	------------



**NOTES:** Do not scale this drawing. All dimensions to be checked on site prior to commencement of manufacture.

The New Construction (Design and Management) Regulations 2015 come into force on 6 April 2015. The revised legislation applies to all projects including for the first time domestic jobs:

- All projects must have a written construction phase plan
- The role of CDM co-ordinator in the previous CDM Regs 2007 has been removed and replaced with a new role of principal designer.
- There is a duty to make sure all persons doing the job have the right skills, knowledge, training and experience
- Some domestic and non-domestic projects will have to be notified to the Health & Safety Executive by the client.

It is the responsibility of the Client to manage the Health and Safety of the project or nominate and agree a 'Principal Designer'.



All Mechanical & Electrical and Structural information shown indicative only.  
Please refer to Mechanical & Electrical and Structural documentation.

All details referenced in call outs supercede general arrangement or larger depictions.

T1	10.06.15	RKC	-	DRAWING ISSUED FOR TENDER
Rev	Date	By	Chk	Comment

**RAPID KEYSTONE**  
CONSTRUCTION CONSULTANCY LTD

WWW.RKCC1.TD.CO.UK 07965585468 RK@RKCC1.TD.CO.UK

DESIGN ARCHITECTURE ENGINEERING CONSTRUCTION PLANNING  
SCHEDULING PROJECT MANAGEMENT SURVEYING SPECIFICATION  
BUILDING REGULATIONS CONTROLS COSTS QUANTITY SURVEYING CIVIL  
ENGINEERING SITE MANAGEMENT STRUCTURAL ENGINEERING  
ENVIRONMENTAL ENGINEERING SETTING OUT CDM ESTIMATING

Project Title  
Proposed Garage and First Floor Extension  
2 Rodmell Avenue  
Saltdean  
East Sussex BN2 8LT

Drawn by: RKC	Scale: 1:50@A1	Date: 31.01.15
Designed by: -	Checked by: -	Approved by: -

File Ref.: X:\307926-RODAVARICH\300-ELD\307926-A-321.DWG - T1 20-09-24-13:26:58

Drawing No. 307926-A-321	Rev. T1
-----------------------------	------------



NB: All levels are approximate and are subject to further site investigation prior to construction. All discrepancies to be reported to RKC immediately



01 Existing Front East Elevation  
100 Scale: 1:50



NB: All information based on supplied third party survey information. All discrepancies to be reported to RKC immediately upon discovery.

All Mechanical & Electrical and Structural information shown indicative only. Please refer to Mechanical & Electrical and Structural documentation.

NOTES: Do not scale this drawing. All dimensions to be checked on site prior to commencement or manufacture.

The New Construction (Design and Management) Regulations 2015 come into force on 6 April 2015. The revised legislation applies to all projects including for the first time domestic jobs:

- All projects must have a written construction phase plan
- The role of CDM co-ordinator in the previous CDM Regs 2007 has been removed and replaced with a new role of principal designer.
- There is a duty to make sure all persons doing the job have the right skills, knowledge, training and experience.
- Some domestic and non-domestic projects will have to be notified to the Health & Safety Executive by the client.

It is the responsibility of the Client to manage the Health and Safety of the project or nominate and agree a "Principal Designer".

PRELIMINARY  
ISSUE

All details referenced in call outs supercede general arrangement or larger depictions.

Rev	Date	By	Chk	Comment
P1	22.03.15	RKC	-	Preliminary Issue for Information



DESIGN ARCHITECTURE ENGINEERING CONSTRUCTION PLANNING  
SCHEDULING PROJECT MANAGEMENT SURVEYING SPECIFICATION  
BUILDING REGULATIONS CONTROLS COSTS QUANTITY SURVEYING CIVIL  
ENGINEERING SITE MANAGEMENT STRUCTURAL ENGINEERING  
ENVIRONMENTAL ENGINEERING SETTING OUT CDM ESTIMATING

Client  
Penny / Tina  
Stonebank  
Darvey

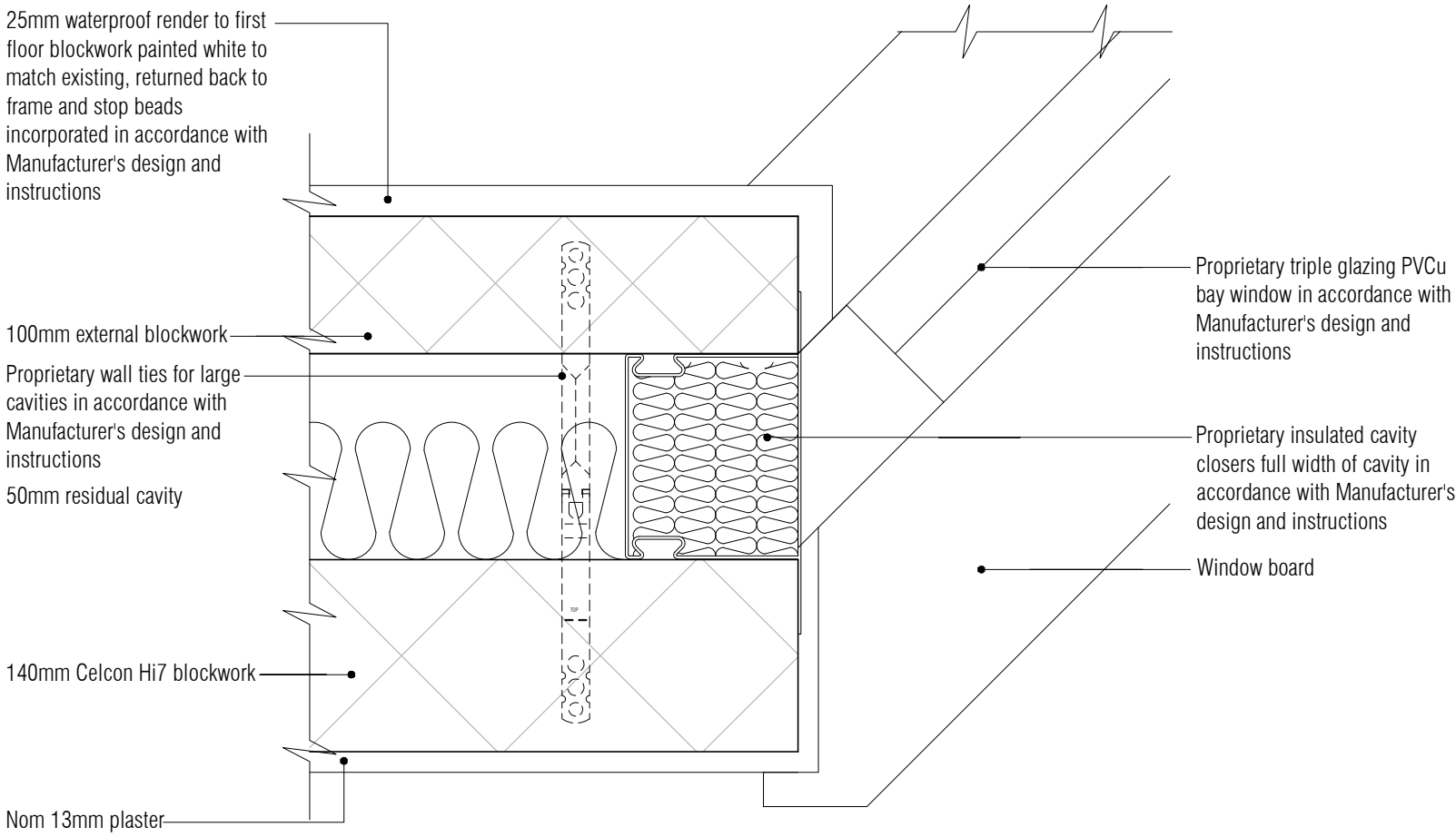
Project Title  
Proposed Garage and First Floor Extension  
2 Rodmell Avenue  
Saltdean  
East Sussex BN2 8LT

Drawing Title  
Proposed Option 2  
for Planning  
Front East  
Elevation

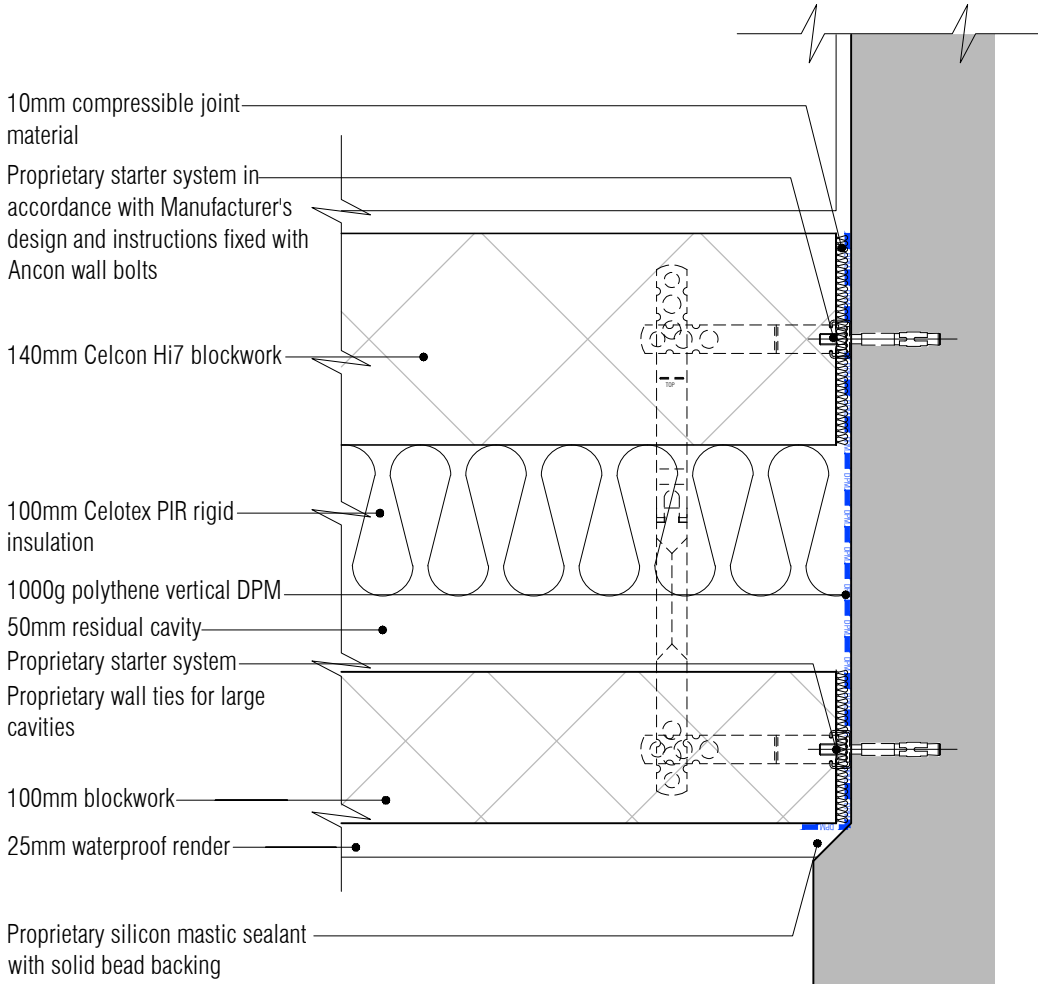
Drawn by: RKC	Scale: 1:50@A1	Date: 15.02.15
Designed by: -	Checked by: -	Approved by: -

File Ref.: X:\307926-A-322 DWG - P1 20.09.24\13:57:39

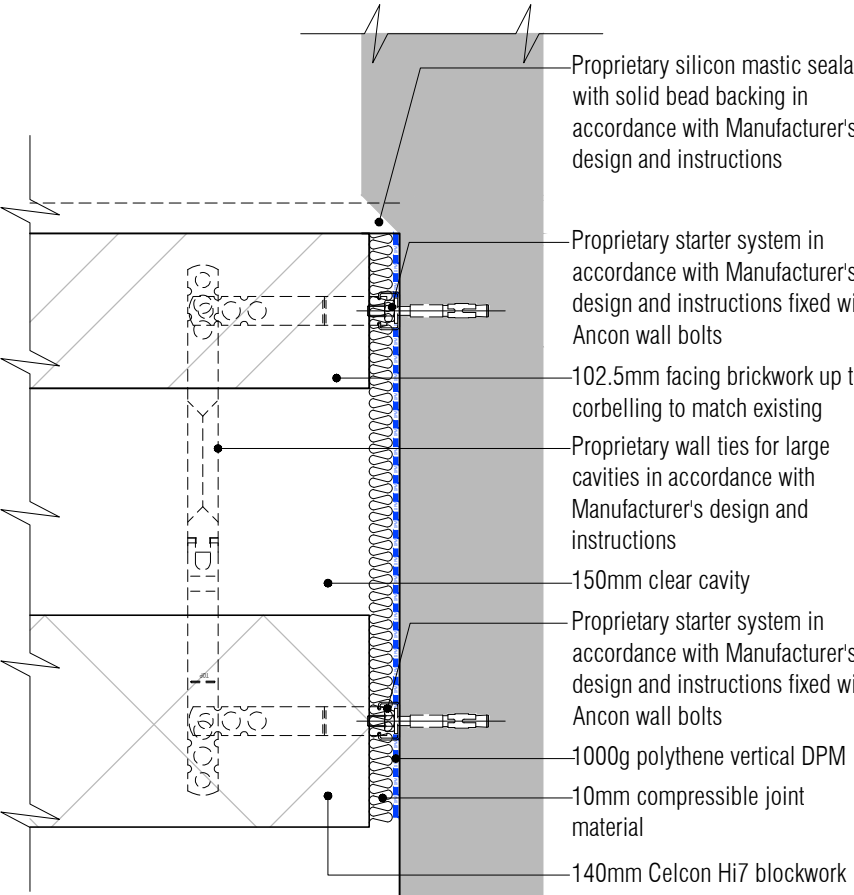
Drawing No. 307926-A-322	Rev. P1
-----------------------------	------------



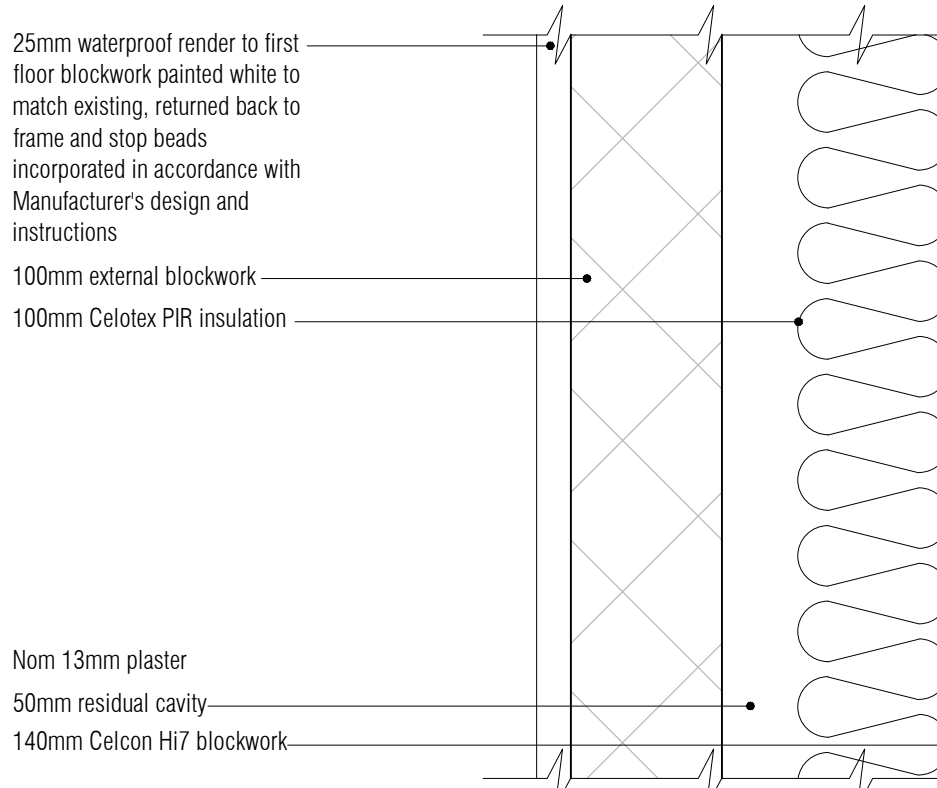
01 First Floor Bay Window Jamb Detail  
122 Scale: 1:5



04 New First Floor Cavity Masonry / Existing Wall Detail  
122 Scale: 1:5

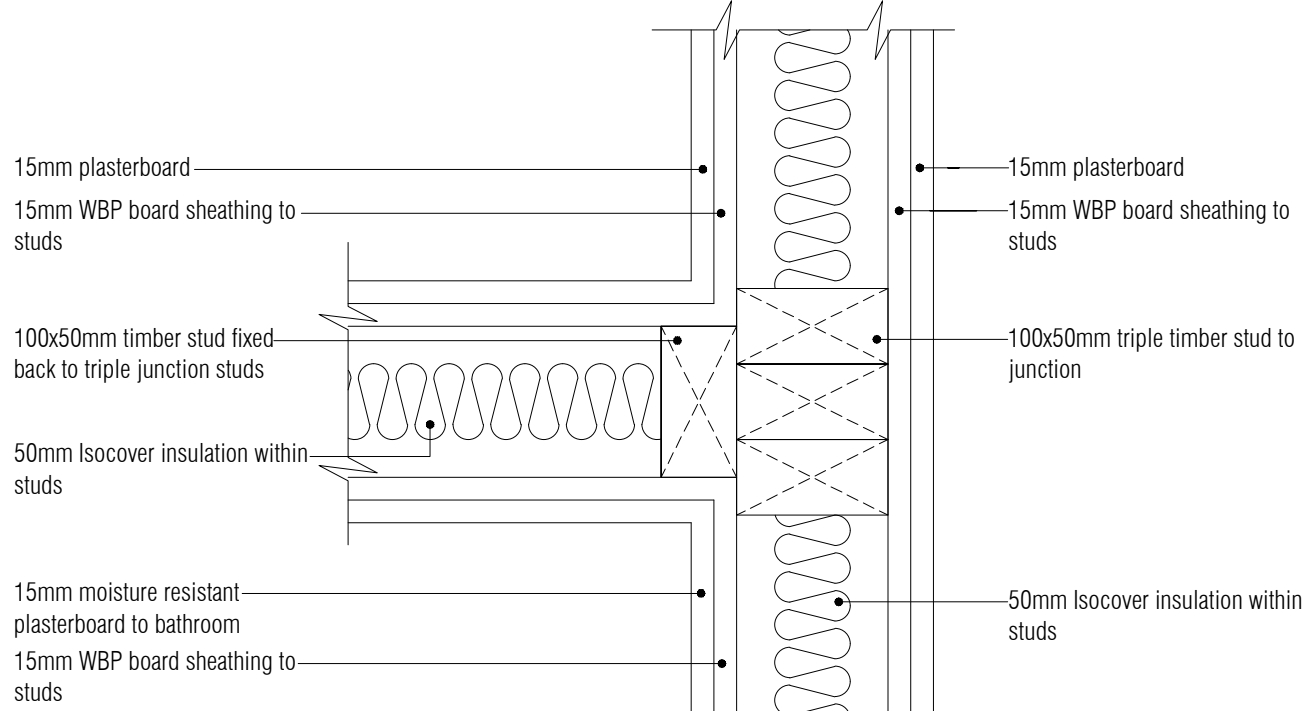


05 New Ground Floor Cavity Masonry / Existing Wall Detail  
121 Scale: 1:5

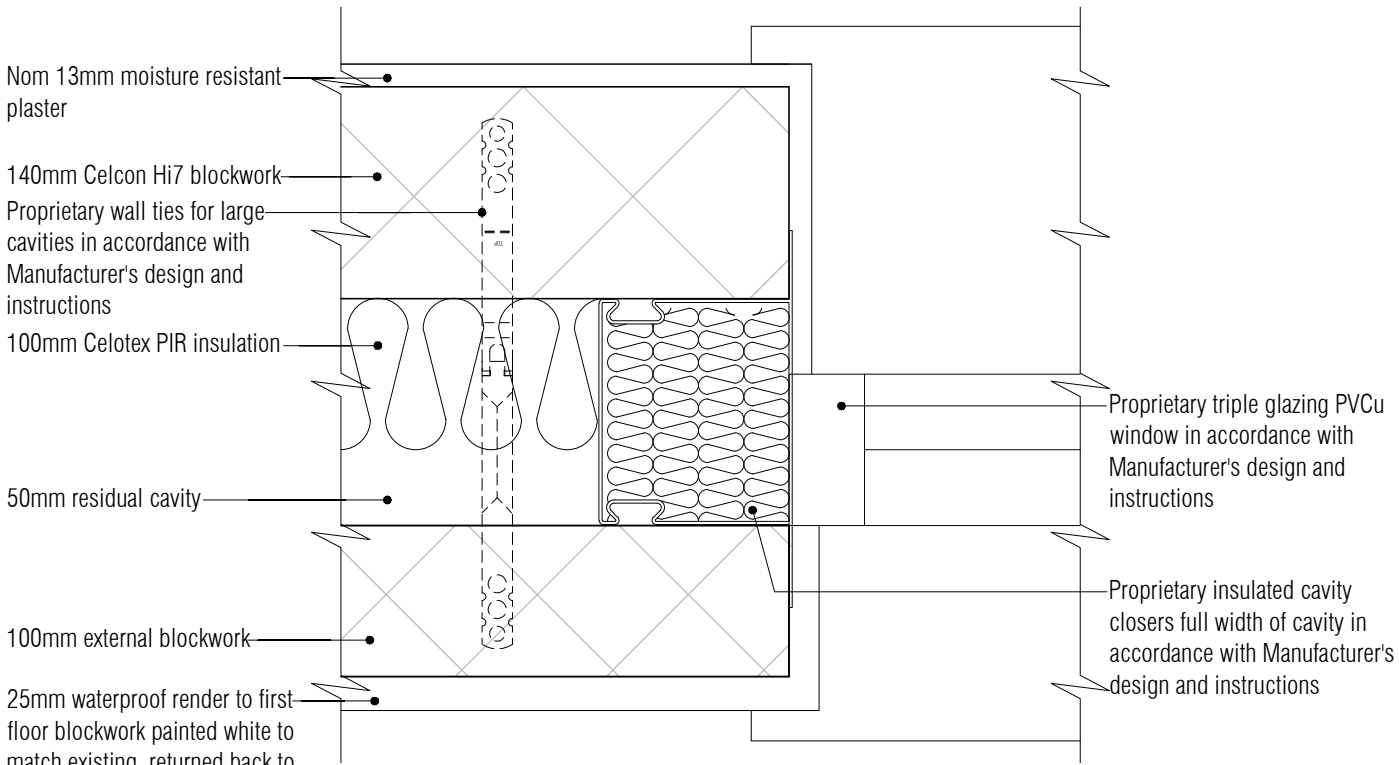


06 New Cavity Masonry / Stud Wall Interface Detail  
122 Scale: 1:5

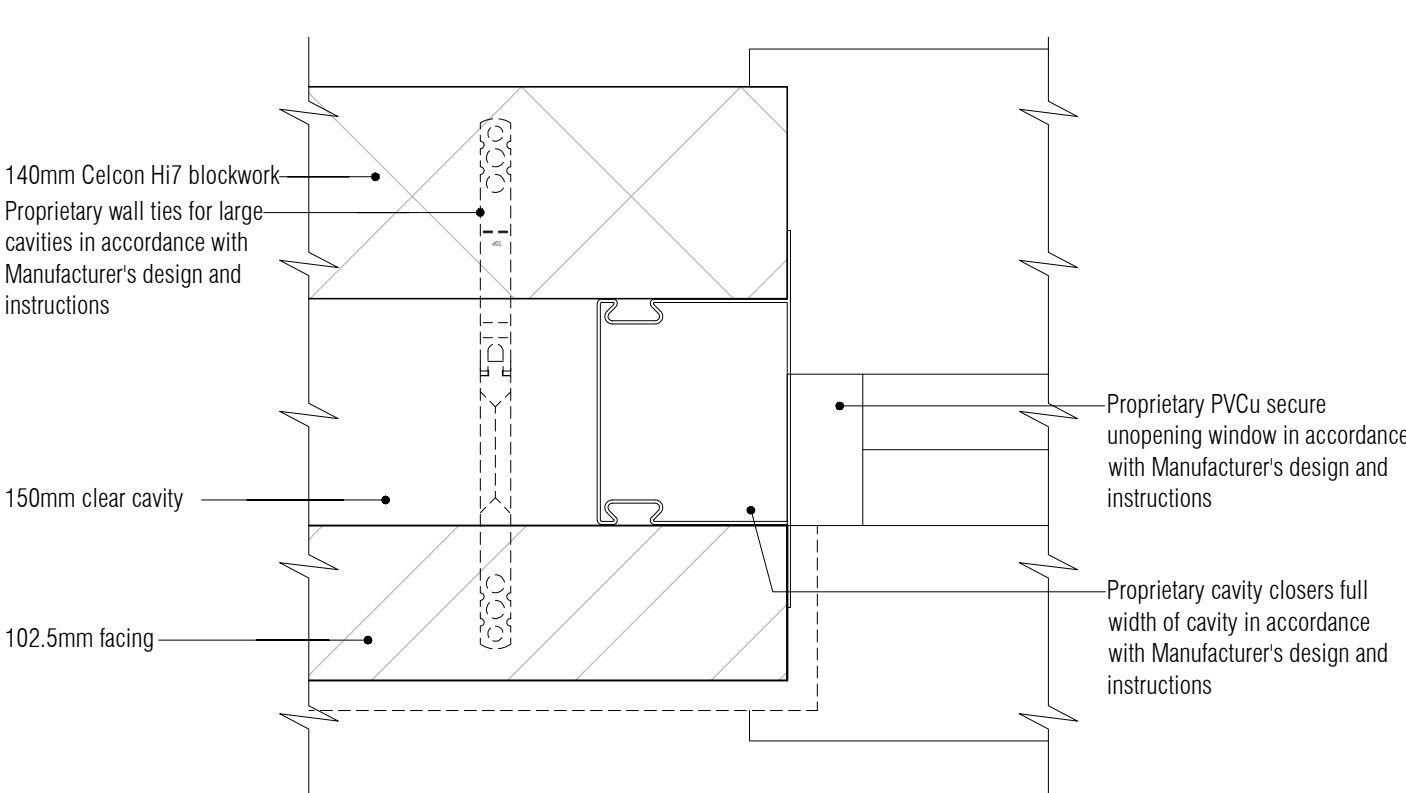
NB: All levels are approximate and are subject to further site investigation prior to construction. All discrepancies to be reported to RKC immediately



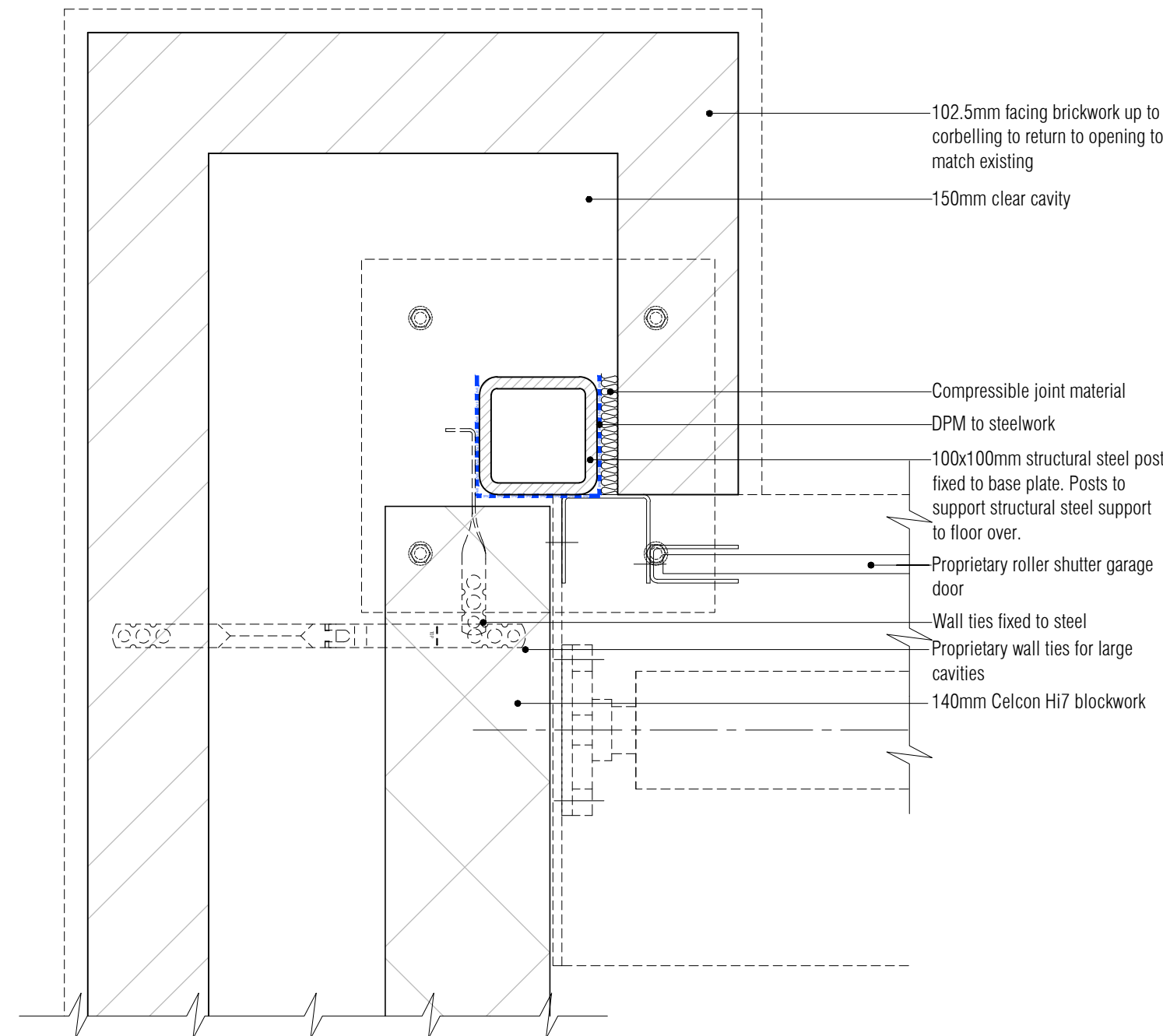
07 Stud Wall Junction Detail  
122 Scale: 1:5



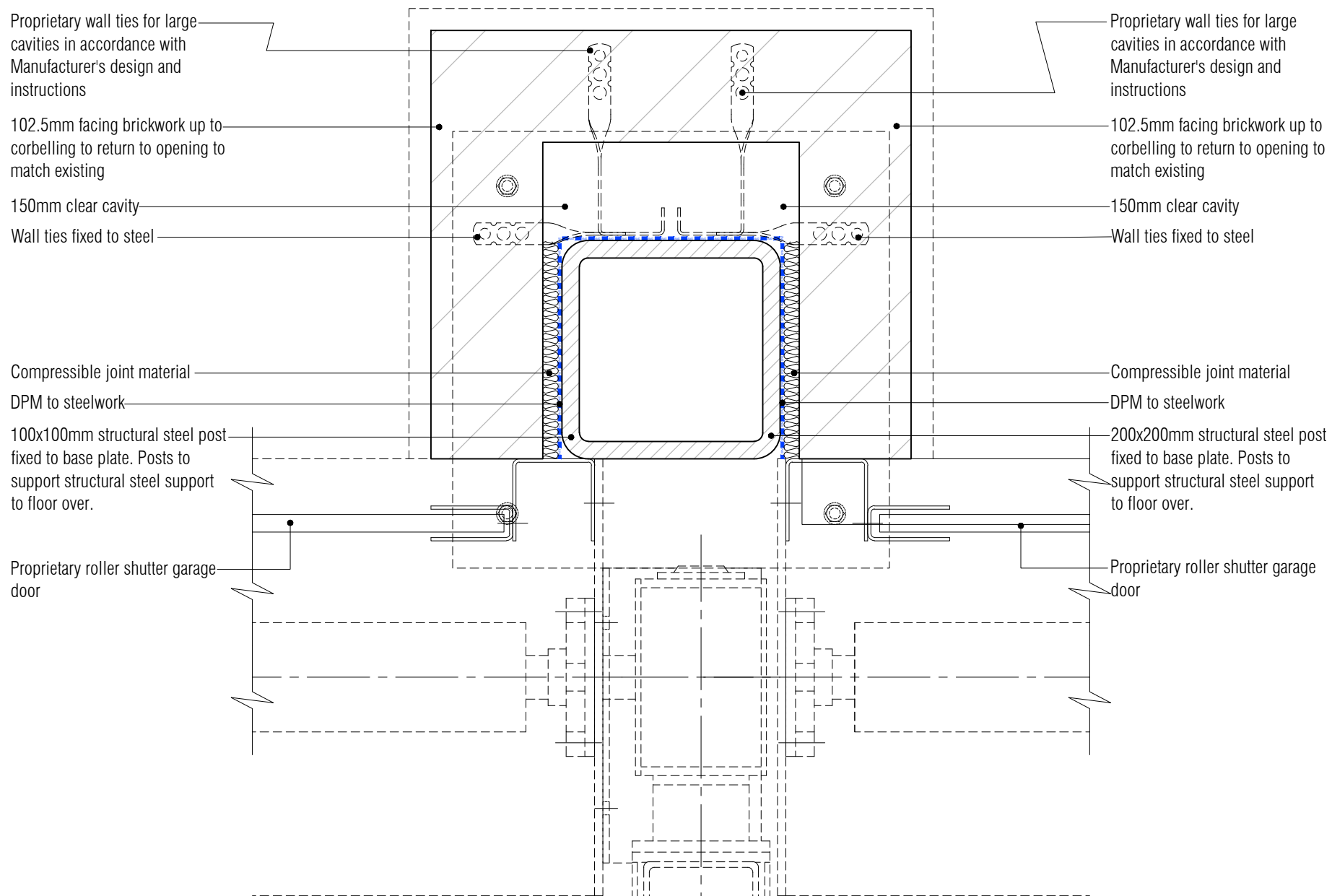
02 First Floor Window Jamb Detail  
122 Scale: 1:5



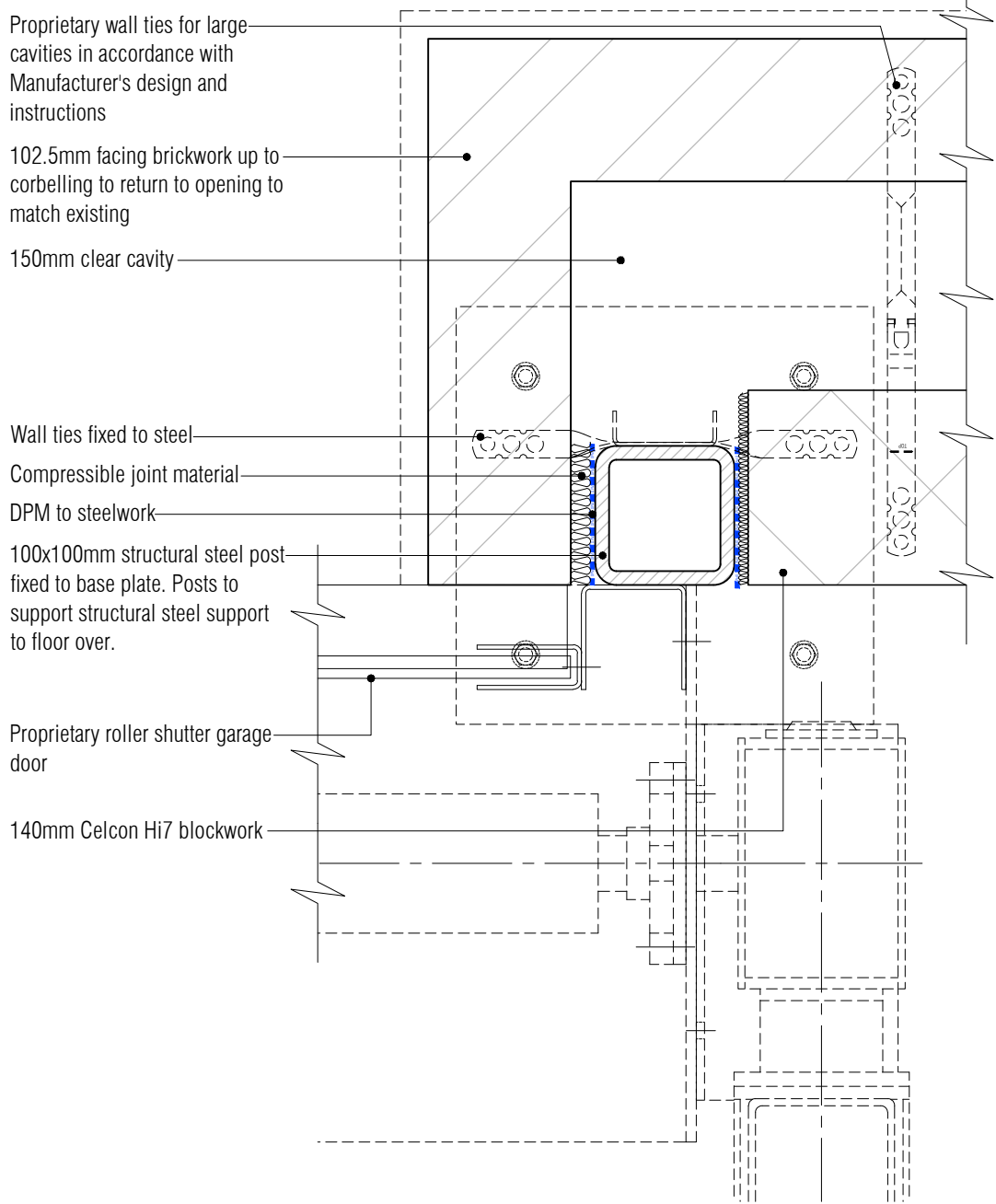
03 Ground Floor Window Jamb Detail  
121 Scale: 1:5



08 Ground Floor Flank Elevation Garage Entry Detail  
121 Scale: 1:5



09 Ground Floor Garage Entry Center Pier Detail  
121 Scale: 1:5



10 Ground Floor Elevation Garage Entry Detail  
121 Scale: 1:5

All Mechanical & Electrical and Structural information shown indicative only  
Please refer to Mechanical & Electrical and Structural documentation

This drawing is for the purposes of legislative and regulatory compliance and is not to be used for construction under any circumstances.

NOTES: Do not scale this drawing. All dimensions to be checked on site prior to commencement or manufacture.  
The New Construction (Design and Management) Regulations 2015 come into force on 6 April 2015. The revised legislation applies to all projects including for the first time domestic jobs:  
• All projects must have a written construction phase plan  
• The role of CDM co-ordinator in the previous CDM Regs 2007 has been removed and replaced with a new role of principal designer.  
• There is a duty to make sure all persons doing the job have the right skills, knowledge, training and experience.  
• Some domestic and non-domestic projects will have to be notified to the Health & Safety Executive by the client.  
It is the responsibility of the Client to manage the Health and Safety of the project or nominate and agree a "Principal Designer".

ISSUED FOR  
TENDER

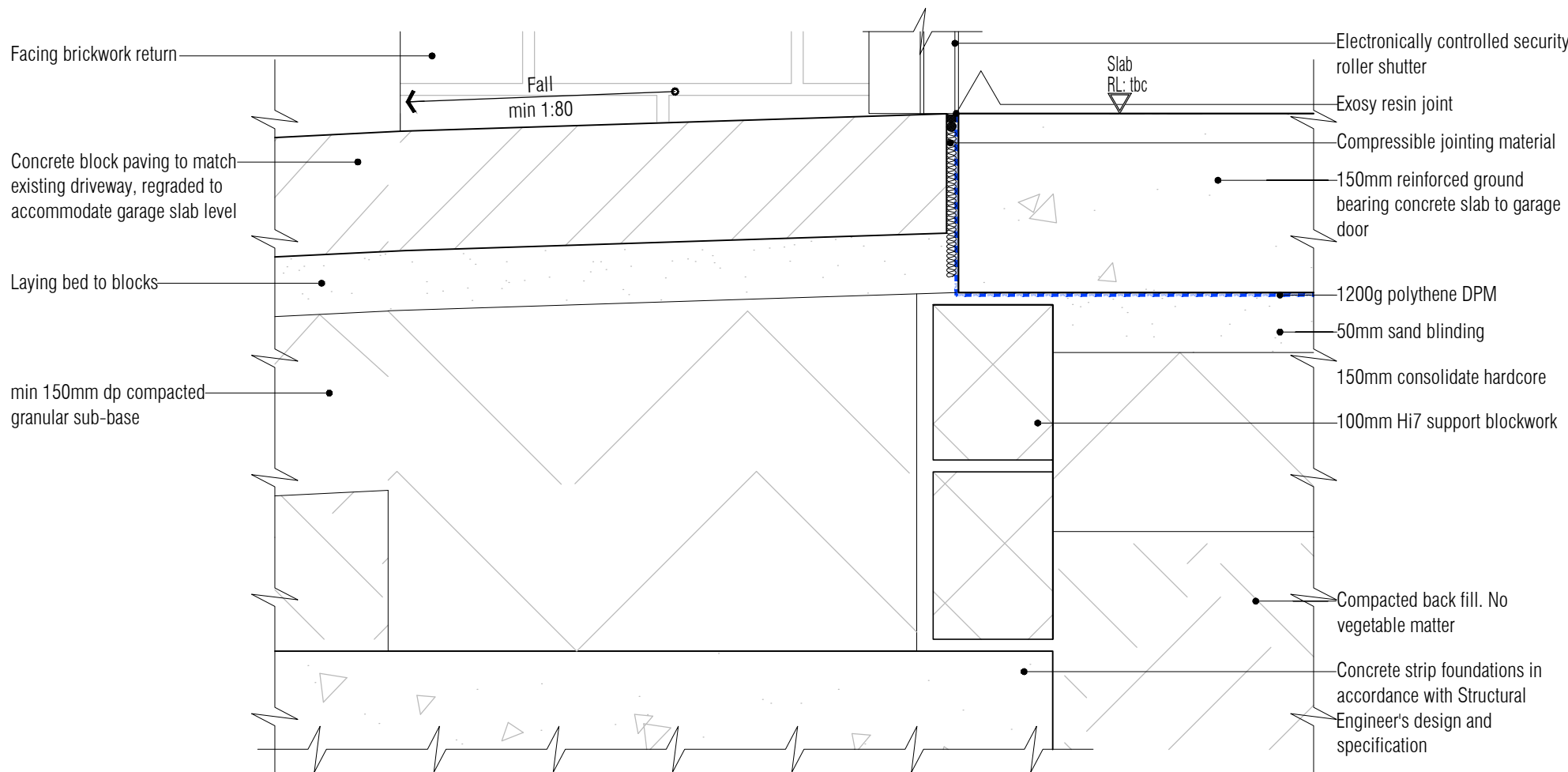
All details referenced in call outs supercede general arrangement or larger depictions.

Rev	Date	By	Chk	Comment
T1	10.06.15	RKC	-	DRAWING ISSUED FOR TENDER

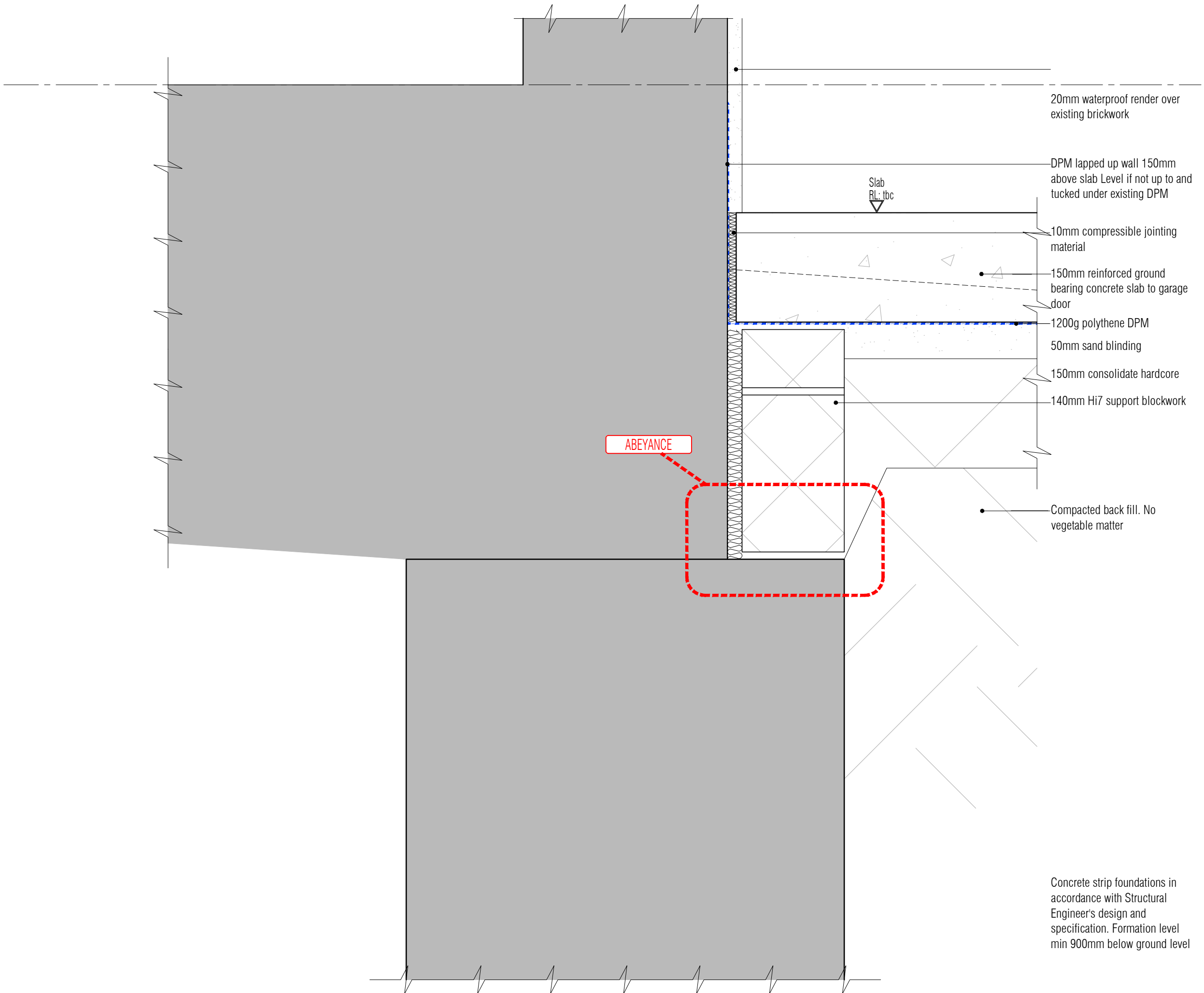
**RAPID KEYSTONE**  
CONSTRUCTION CONSULTANCY LTD  
WWW.RKCCCLTD.CO.UK 077965595488 RKC@RKCCCLTD.CO.UK  
DESIGN ARCHITECTURE ENGINEERING CONSTRUCTION PLANNING  
SCHEDULING PROJECT MANAGEMENT SURVEYING SPECIFICATION  
BUILDING REGULATIONS CONTROLS COSTS QUANTITY SURVEYING CIVIL  
ENGINEERING SITE MANAGEMENT STRUCTURAL ENGINEERING  
ENVIRONMENTAL ENGINEERING SETTING OUT CDM ESTIMATING

Client Penny / Tina Stonebank Darvey		
Project Title Proposed Garage and First Floor Extension 2 Rodmell Avenue Saltdean East Sussex BN2 8LT		
Drawing Title Proposed Plan Details Sheet 1		
Drawn by: RKC	Scale: 1:50@A1	Date: 11.12.14
Designed by: -	Checked by: -	Approved by: -
File Ref.: 307926-A-500 (DWG) - T1		20.09.24.13:27:22
Drawing No. 307926-A-500		Rev. T1

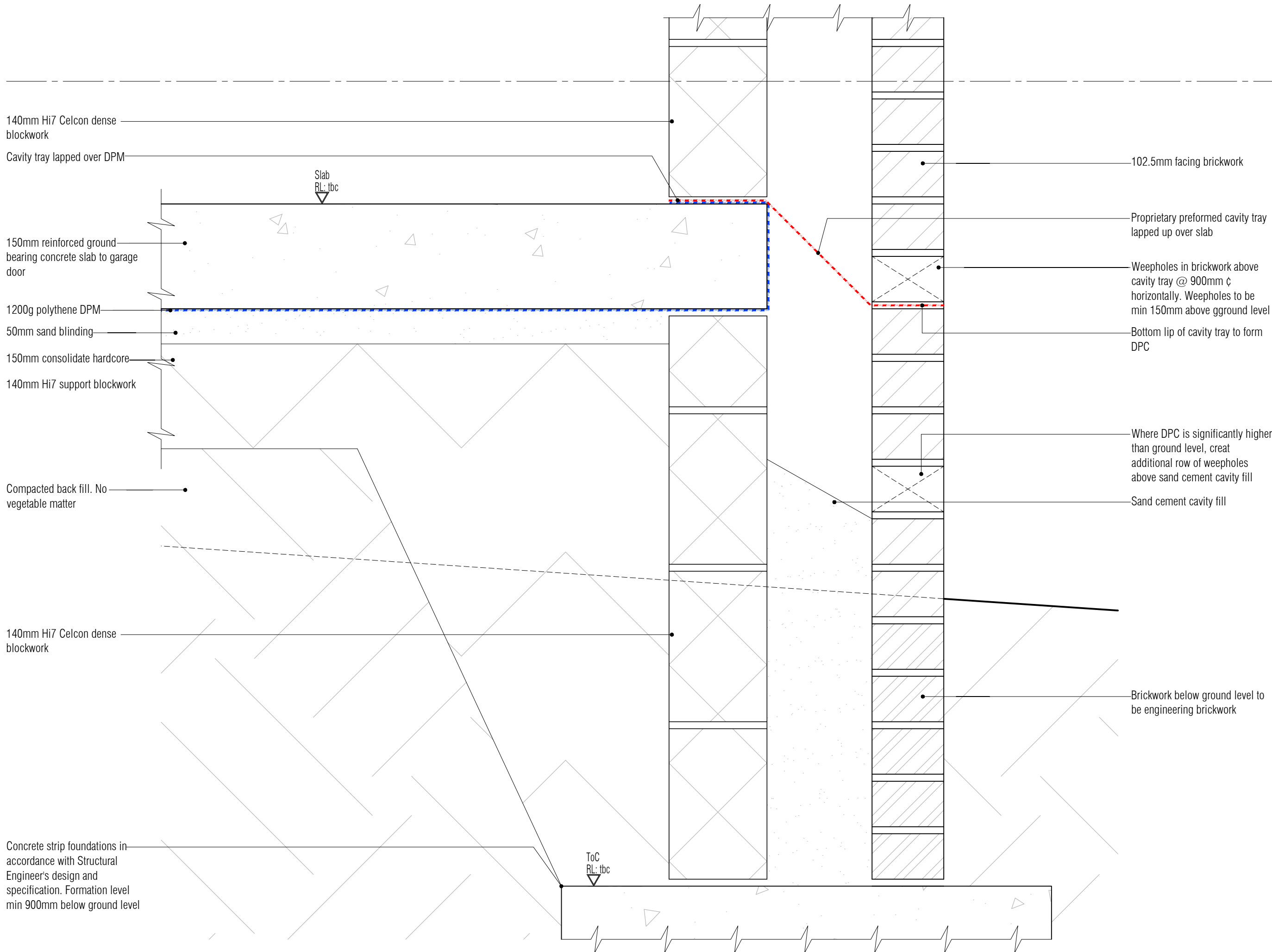




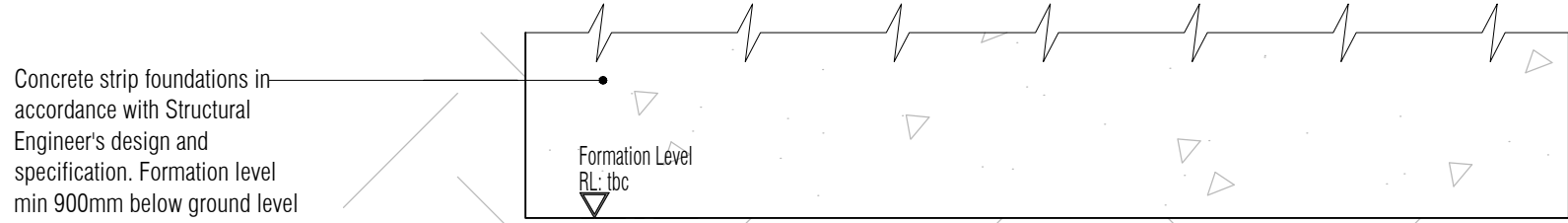
01 New Slab / Existing Driveway Interface Detail  
Scale: 1:5



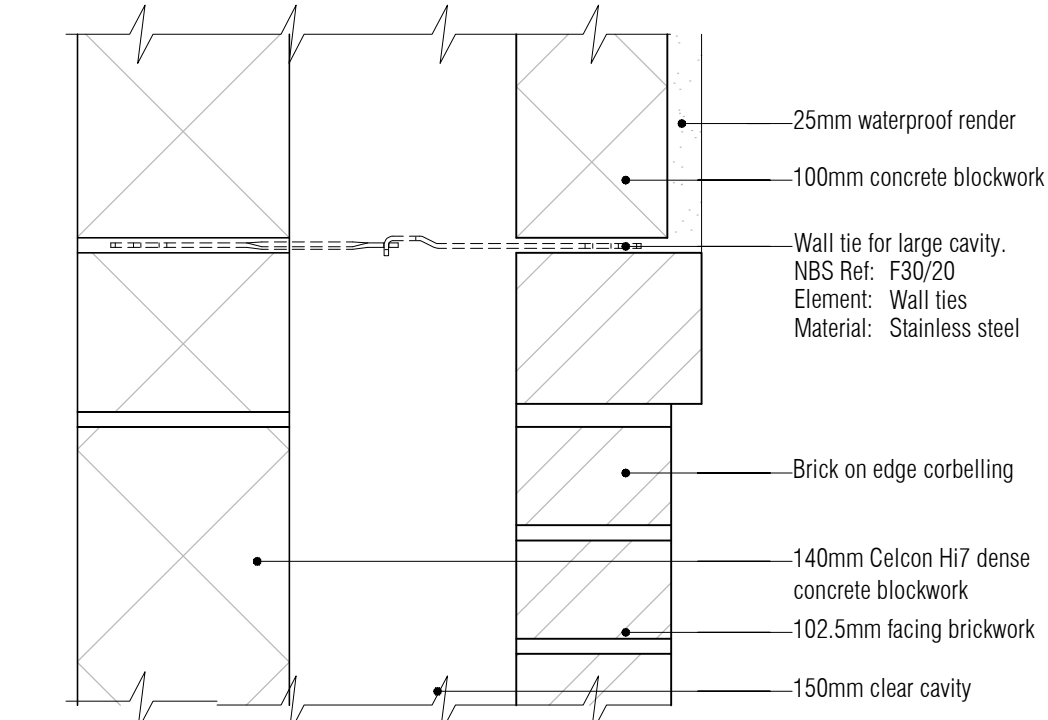
03 New Slab / Existing Footing Interface Detail  
Scale: 1:5



04 New Slab / New Top of Foundation Detail  
Scale: 1:5



05 New Strip Foundation Formation Level Detail  
Scale: 1:5



02 New Brickwork / Corbelling / Rendering Interface Detail  
Scale: 1:5

NB: All levels are approximate and are subject to further site investigation prior to construction. All discrepancies to be reported to RKC immediately

This drawing is for the purposes of legislative and regulatory compliance and is not to be used for construction under any circumstances.

NOTES: Do not scale this drawing. All dimensions to be checked on site prior to commencement or manufacture.  
The New Construction (Design and Management) Regulations 2015 come into force on 6 April 2015. The revised legislation applies to all projects including for the first time domestic jobs:  
• All projects must have a written construction phase plan  
• The role of CDM co-ordinator in the previous CDM Regs 2007 has been removed and replaced with a new role of principal designer.  
• There is a duty to make sure all persons doing the job have the right skills, knowledge, training and experience.  
• Some domestic and non-domestic projects will have to be notified to the Health & Safety Executive by the client.  
It is the responsibility of the Client to manage the Health and Safety of the project or nominate and agree a "Principal Designer".

ISSUED FOR  
TENDER

All details referenced in call outs supersede general arrangement or larger depictions.

Rev	Date	By	Chk	Comment
T1	10.06.15	RKC		DRAWING ISSUED FOR TENDER

**RAPID KEYSTONE**  
CONSTRUCTION CONSULTANCY LTD  
WWW.RKCC LTD.CO.UK 07985595488 RKCC@RKCC LTD.CO.UK  
DESIGN ARCHITECTURE ENGINEERING CONSTRUCTION PLANNING  
SCHEDULING PROJECT MANAGEMENT SURVEYING SPECIFICATION  
BUILDING REGULATIONS CONTROLS COSTS QUANTITY SURVEYING CIVIL  
ENGINEERING SITE MANAGEMENT STRUCTURAL ENGINEERING  
ENVIRONMENTAL ENGINEERING SETTING OUT CDM ESTIMATING

Client Penny / Tina  
Stonebank  
Darvey

Project Title Proposed Garage and First Floor Extension  
2 Rodmell Avenue  
Saltdean  
East Sussex BN2 8LT

Drawing Title Proposed  
Foundation and Ground Floor Slab  
Details  
Sheet 1

Drawn by: RKC	Scale: 1:5@A1	Date: 25.04.15
Designed by: -	Checked by: -	Approved by: -

File Ref.: X:\307926-Rodmell\ARCH\DWG\001 20.09.24\13:27:49

Drawing No.  
307926-A-520 Rev.  
T1

NB: All information based on supplied third party survey information.  
All discrepancies to be reported to RKC immediately upon discovery.

All Mechanical & Electrical and Structural information shown indicative only  
Please refer to Mechanical & Electrical and Structural documentation

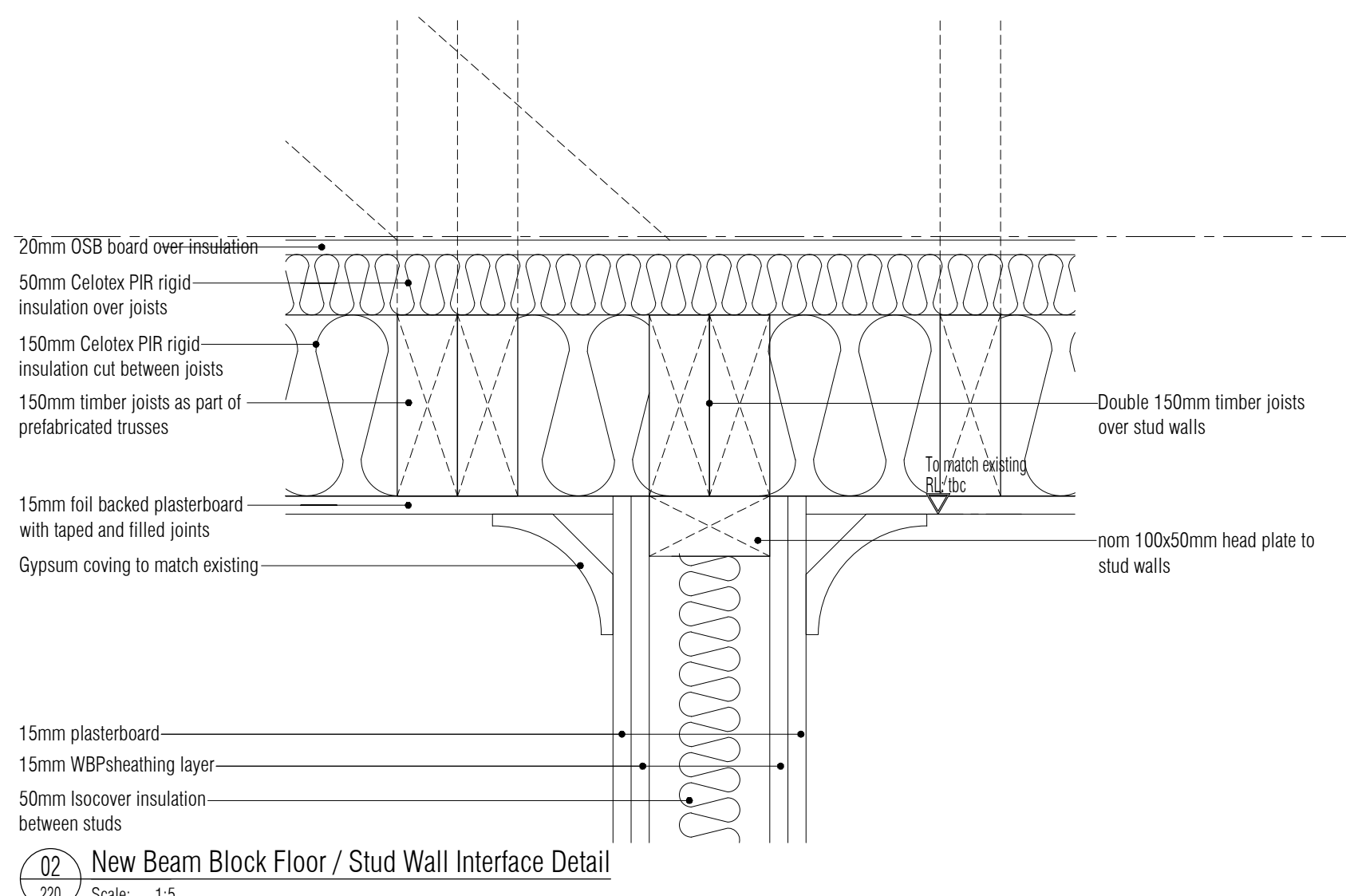
NB: All levels are approximate and are subject to further site investigation prior to construction. All discrepancies to be reported to RKC immediately

This drawing is for the purposes of legislative and regulatory compliance and is not to be used for construction under any circumstances.

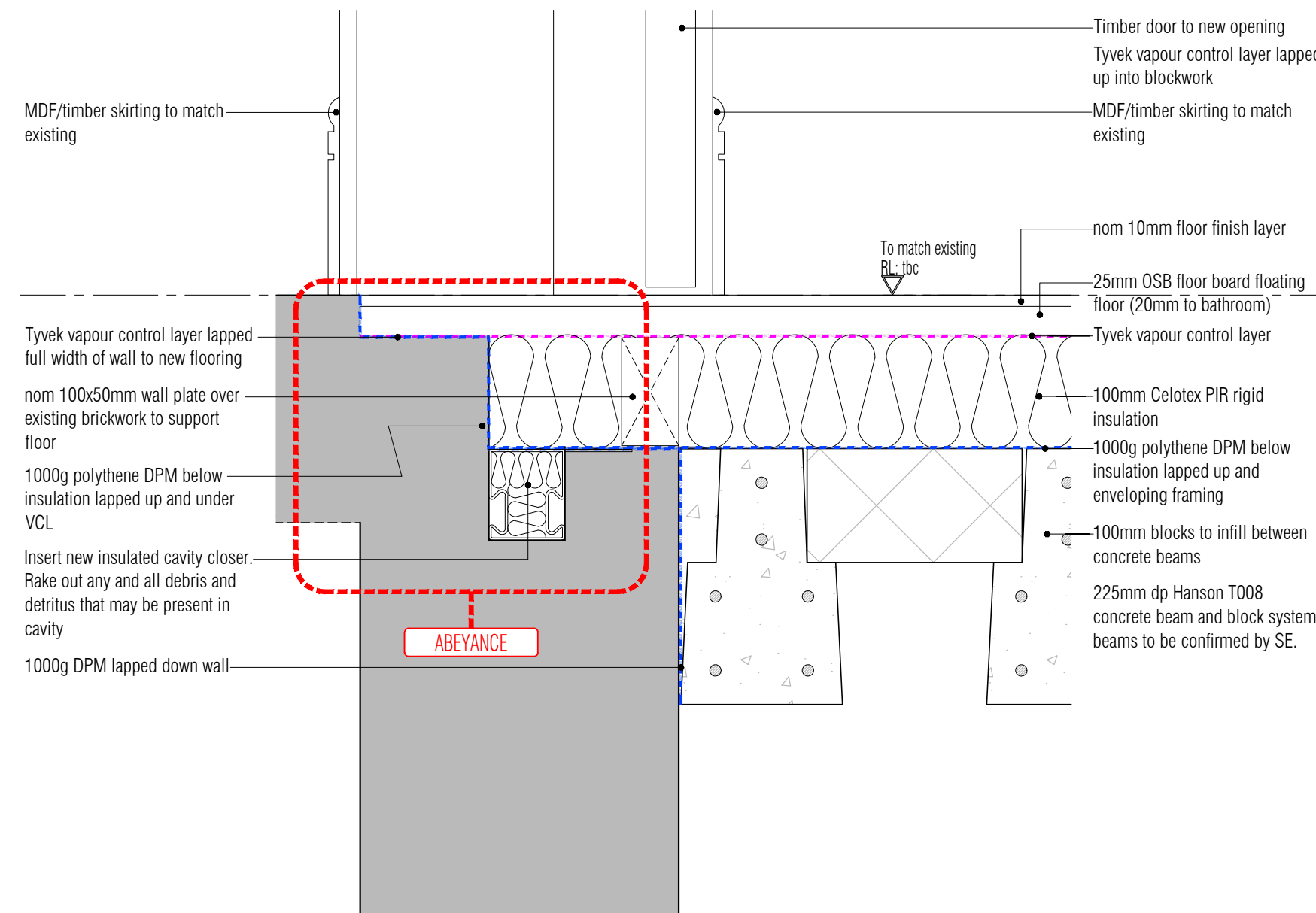
NOTES: Do not scale this drawing. All dimensions to be checked on site prior to commencement or manufacture.

The New Construction (Design and Management) Regulations 2015 come into force on 6 April 2015. The revised legislation applies to all projects including for the first time domestic jobs:

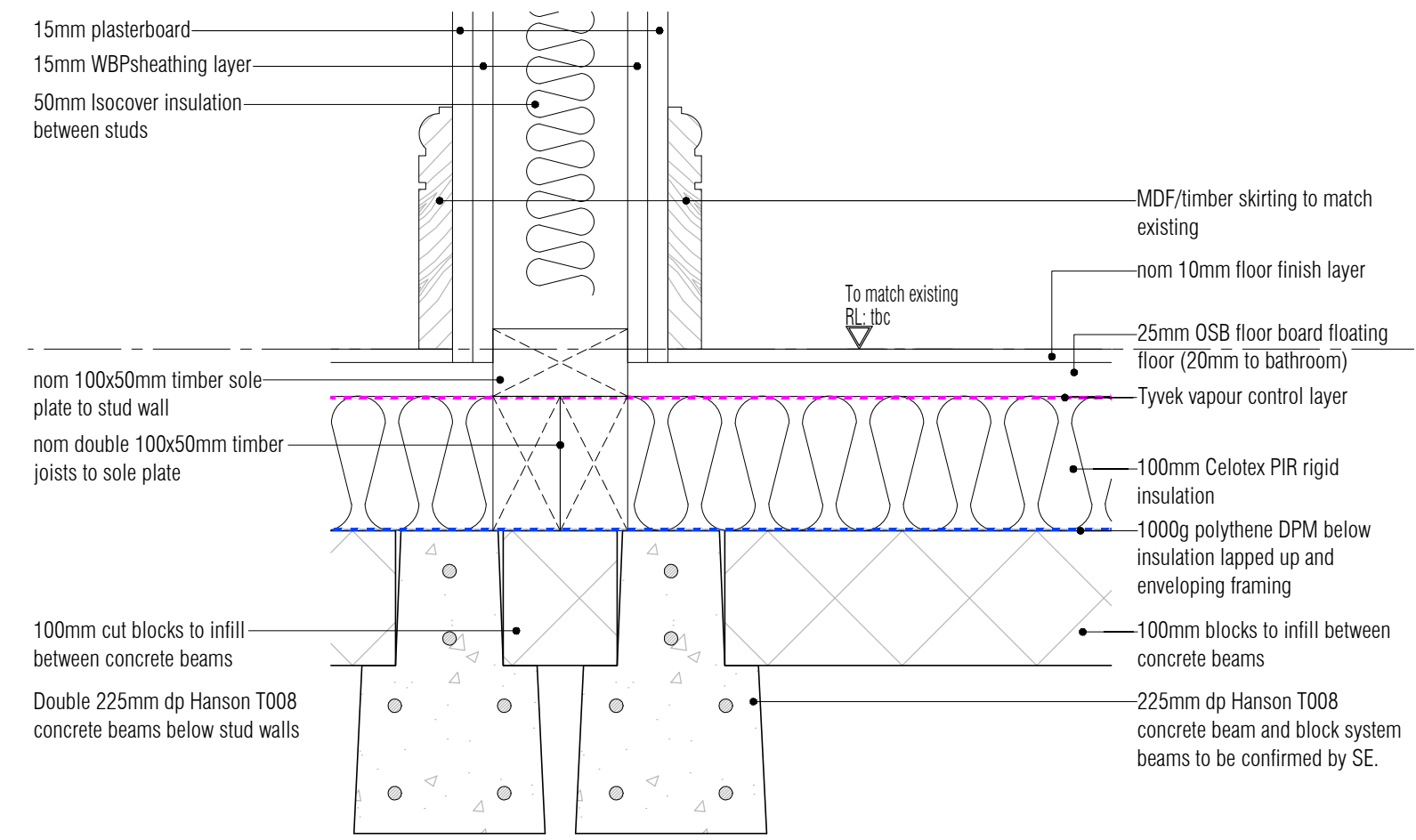
- All projects must have a written construction phase plan
  - The role of CDM co-ordinator in the previous CDM Regs 2007 has been removed and replaced with a new role of principal designer.
  - There is a duty to make sure all persons doing the job have the right skills, knowledge, training and experience.
  - Some domestic and non-domestic projects will have to be notified to the Health & Safety Executive by the client.
- It is the responsibility of the Client to manage the Health and Safety of the project or nominate and agree a "Principal Designer".



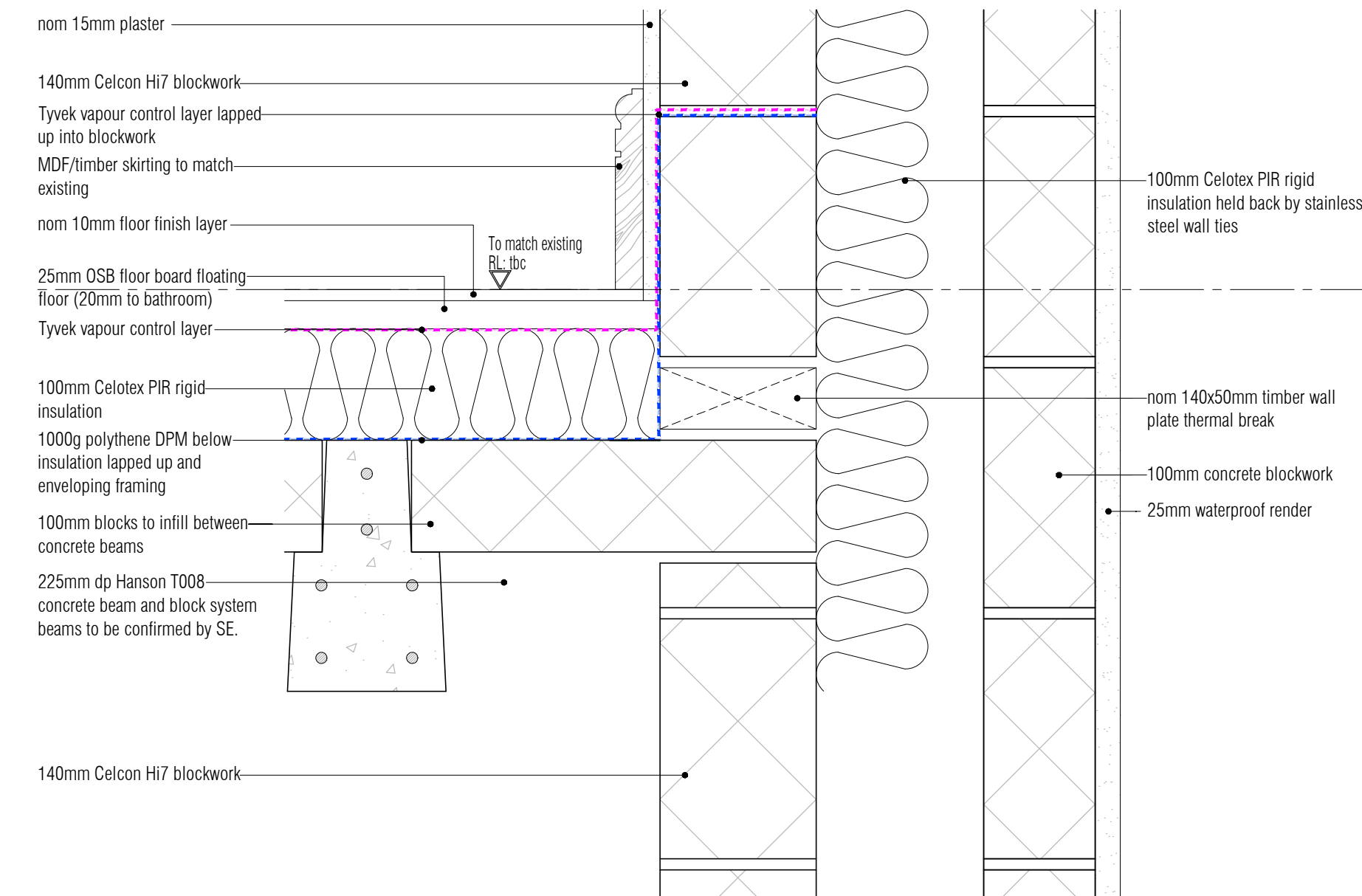
02 New Beam Block Floor / Stud Wall Interface Detail  
220 Scale: 1/5



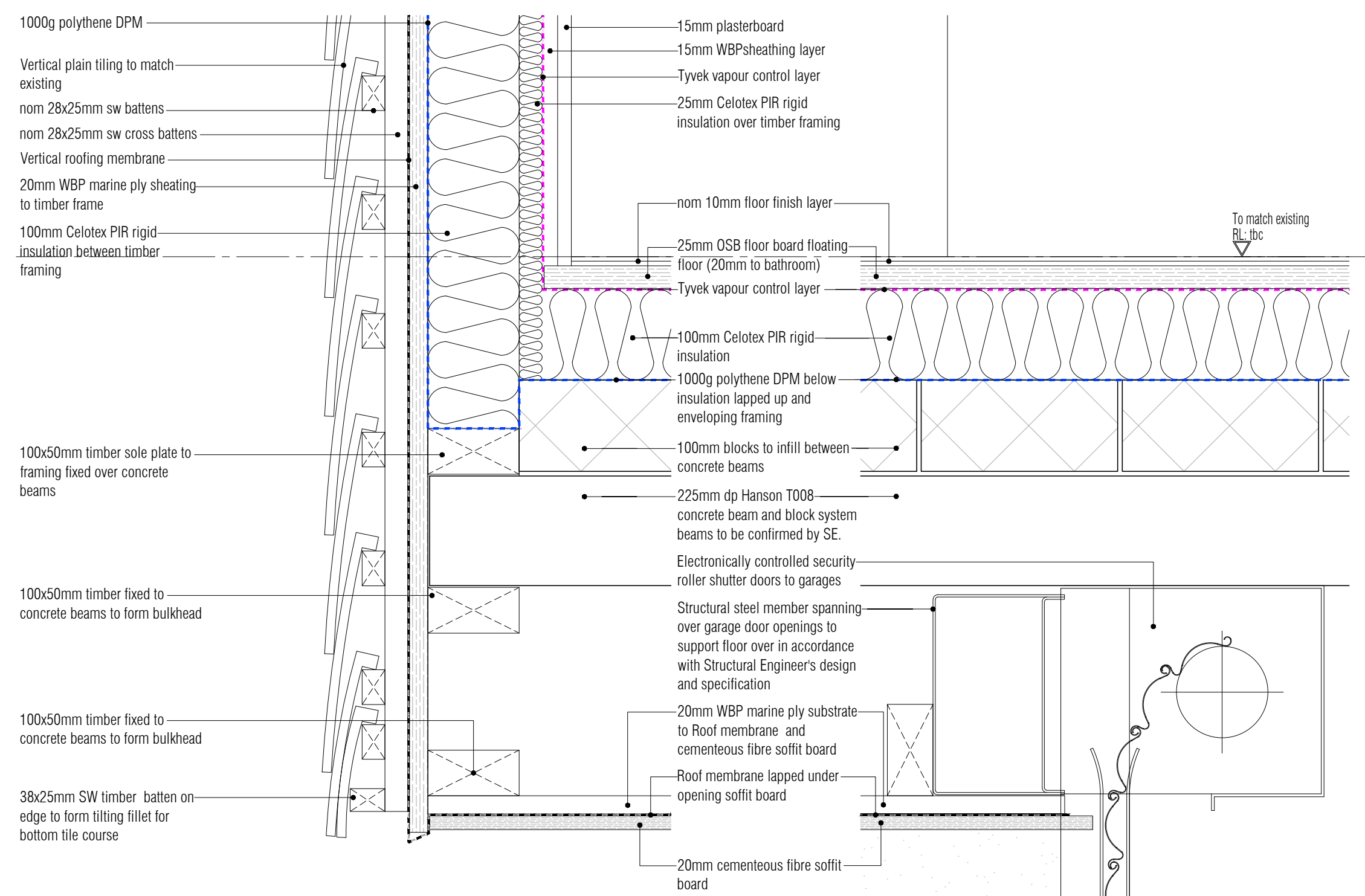
01 New Beam Block / Existing Wall Interface Detail  
220 Scale: 1:5



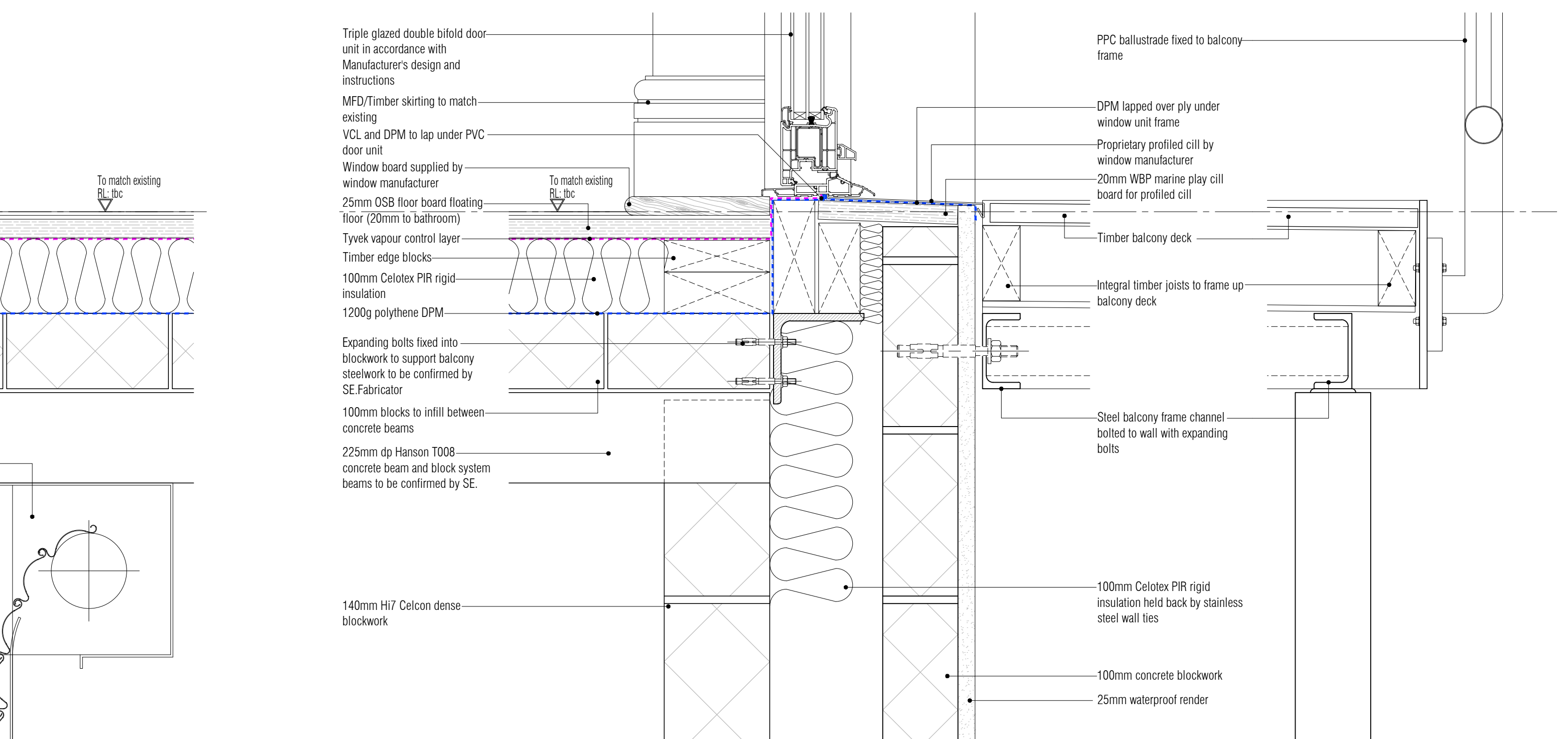
02 New Beam Block Floor / Stud Wall Interface Detail  
220 Scale: 1:5



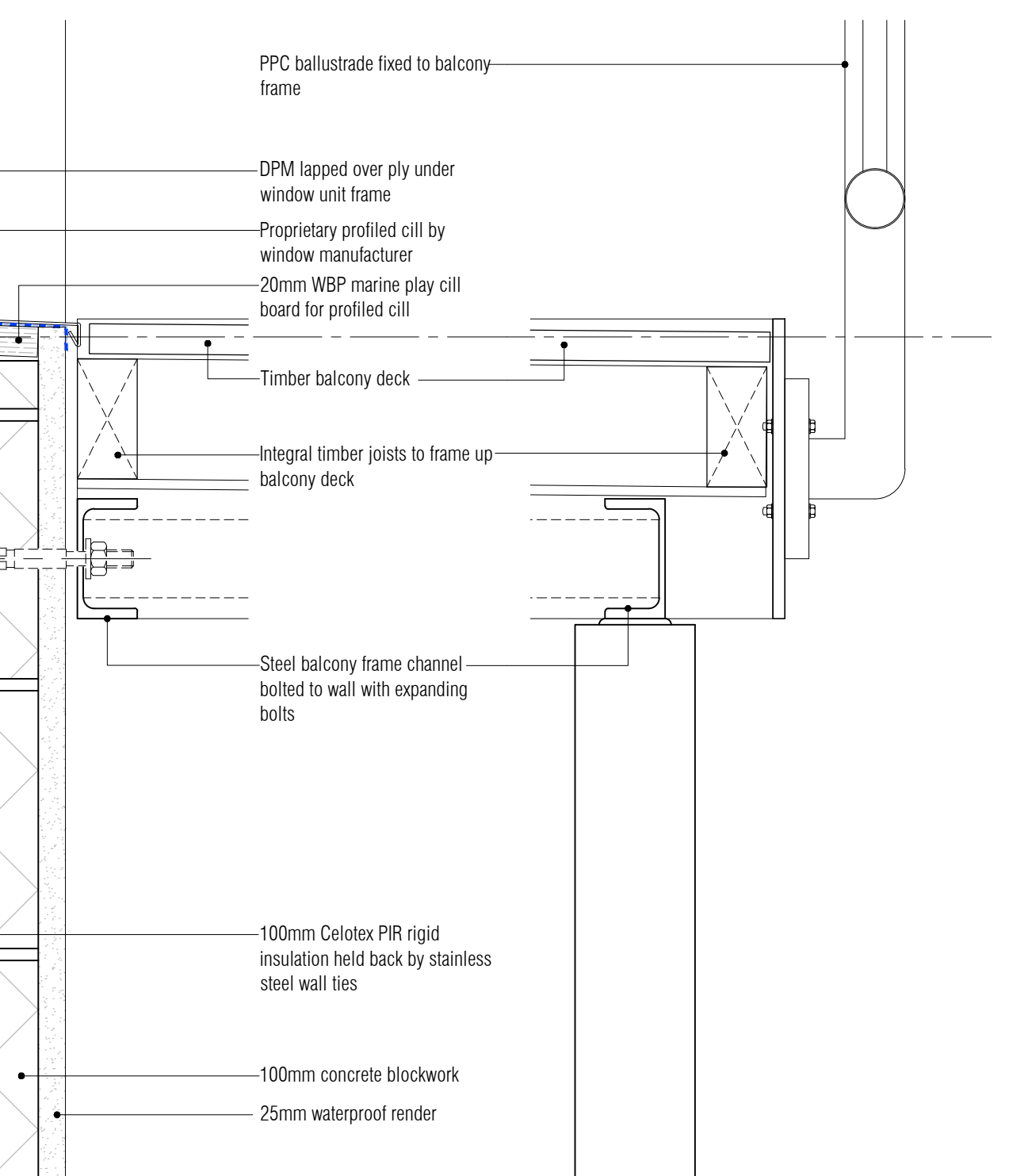
03 New Beam Block / New External Wall Interface Detail  
220 Scale: 1:5



04 New Beam Block / New Bay Wall Interface Detail  
220 Scale: 1:5



06 New Beam Block / Door Cill / Balcony Interface Detail  
550 Scale: 1:5



07 Balcony Edge Detail  
550 Scale: 1:5

NB: All information based on supplied third party survey information.  
All discrepancies to be reported to RKC immediately upon discovery.

All Mechanical & Electrical and Structural information shown indicative only.  
Please refer to Mechanical & Electrical and Structural documentation.

[illegible]

**RAPID KEYSTONE**  
CONSTRUCTION CONSULTANCY LTD

WWW.RKCCCLTD.CO.UK 07965585488 RKCC@RKCCCLTD.CO.UK

DESIGN ARCHITECTURE ENGINEERING CONSTRUCTION PLANNING  
SCHEDULING PROJECT MANAGEMENT SURVEYING SPECIFICATION  
BUILDING REGULATIONS CONTROLS COSTS QUANTITY SURVEYING CM  
ENGINEERING SITE MANAGEMENT STRUCTURAL ENGINEERING  
ENVIRONMENTAL ENGINEERING SETTING OUT CM ESTIMATING

Client  
Penny / Tina  
Stonebank  
Darvey

Project Title  
Proposed Garage and First Floor Extension  
2 Rodmell Avenue  
Saltdean  
East Sussex BN2 8LT

Drawing Title
Proposed
First Floor Beam and Block Floor
Details
Sheet 1

Drawn by: RKC	Scale: 1:5@A1	Date: 25.04.15
Designed by: -	Checked by: -	Approved by: -

File Ref.: X:\307926-RSD\AWR\21500.DET; 307926-A-530.DWG - T1	20:09:24:13:28:33
Drawing No. 307926-A-530	Rev. T1



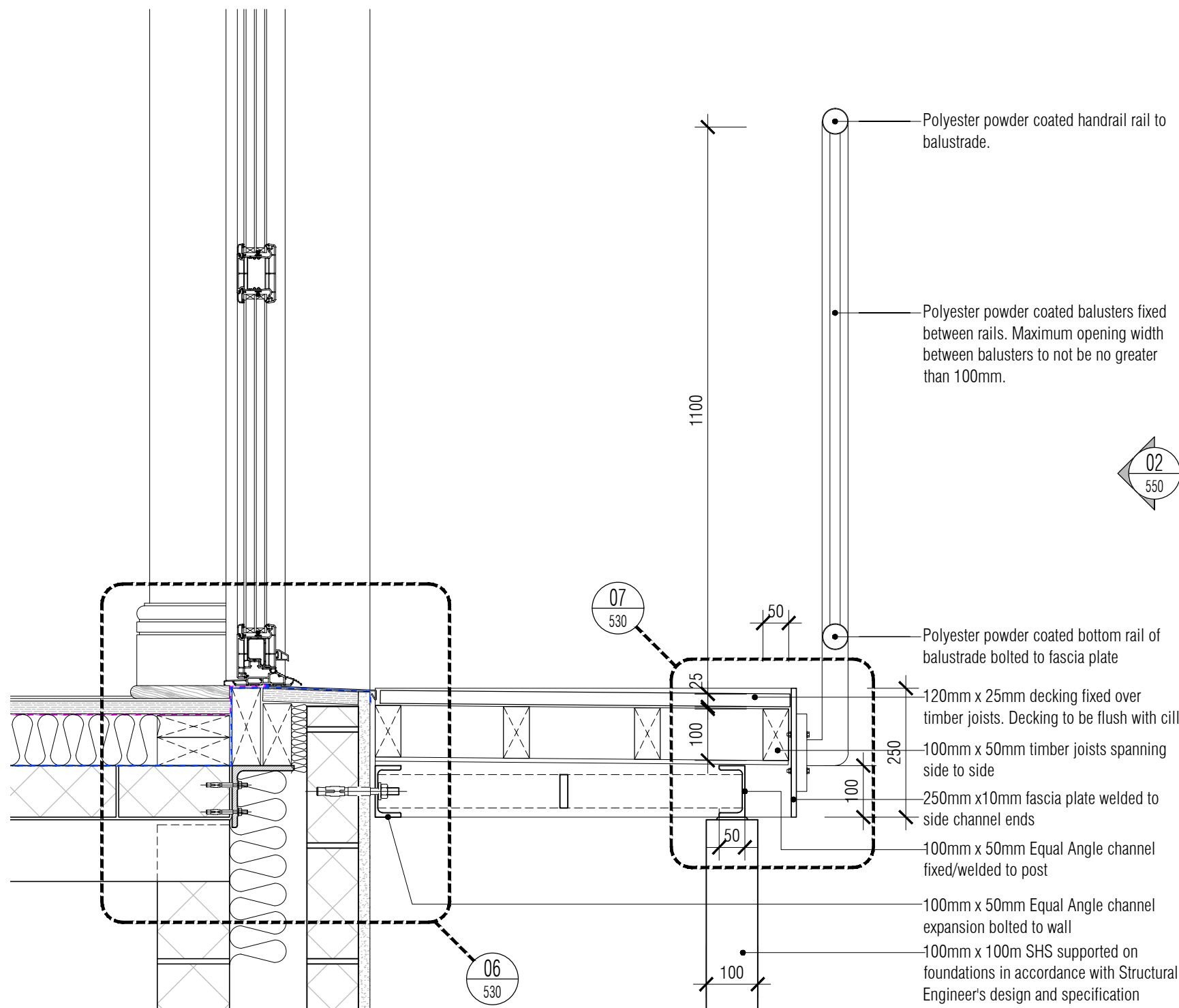
This drawing is for the purposes of legislative and regulatory compliance and is not to be used for construction under any circumstances.

The New Construction (Design and Management) Regulations 2015 come into force on 6 April 2015. The revised legislation applies to all projects including for the first time domestic jobs:

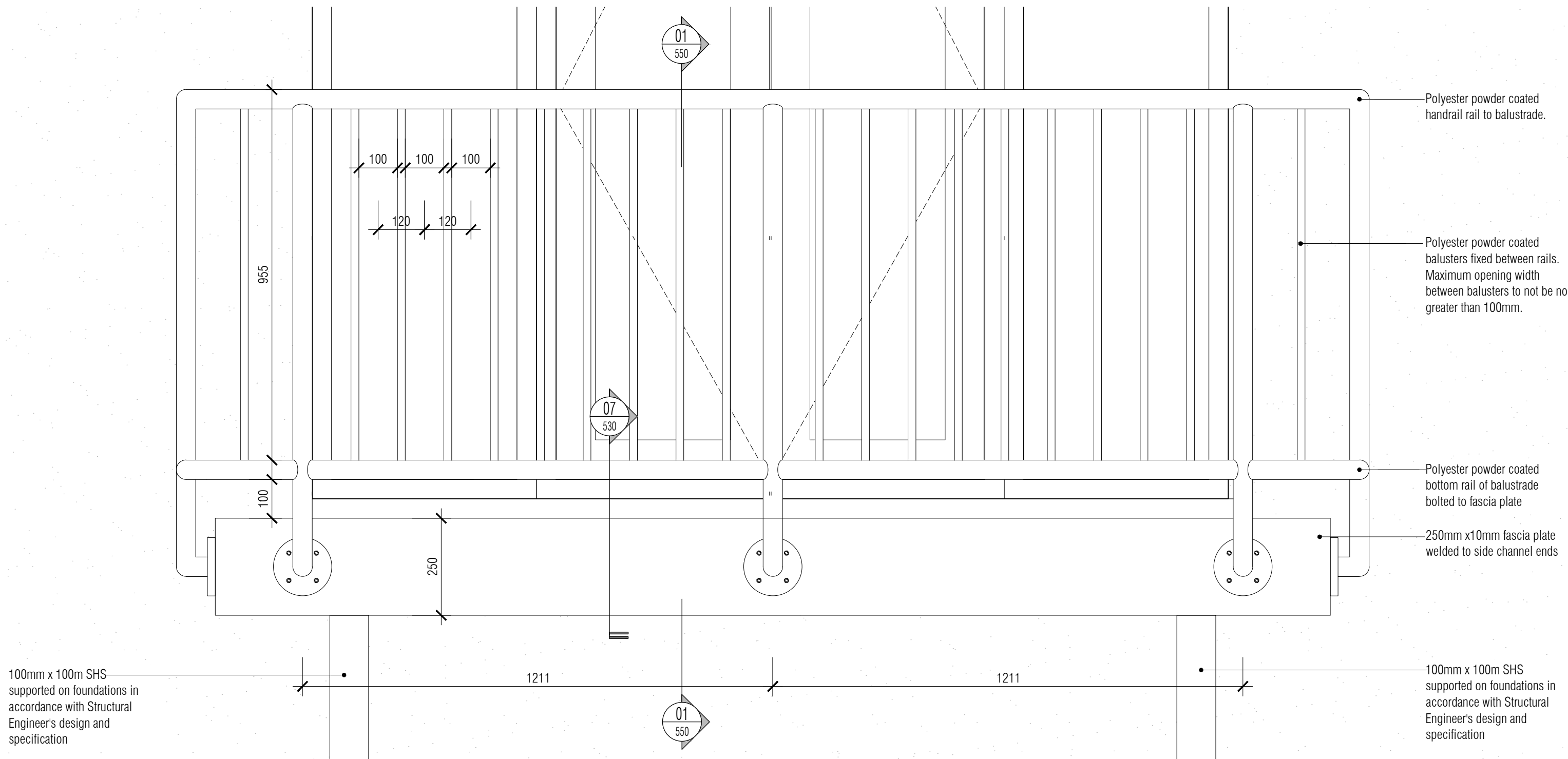




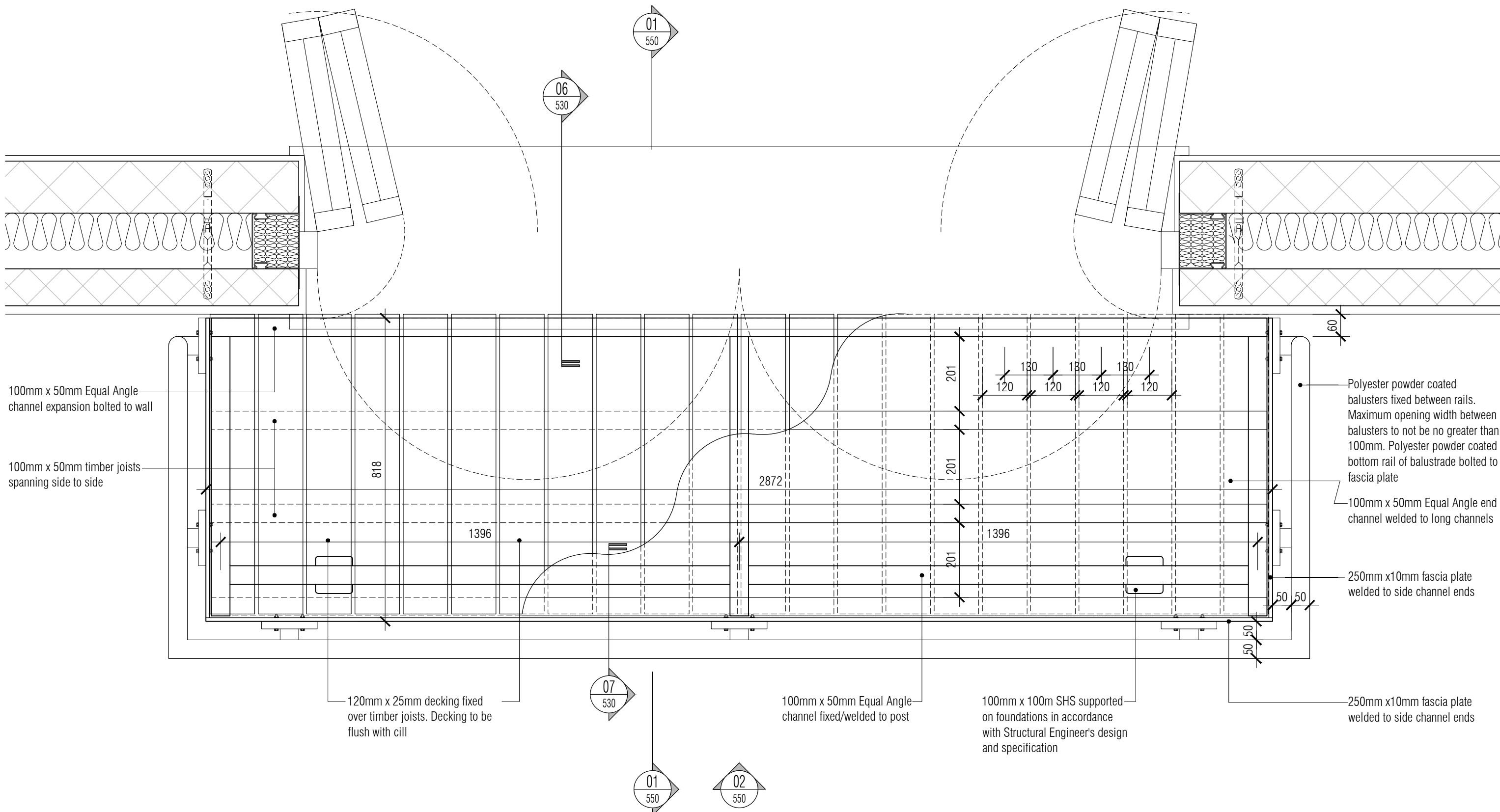




01 Balcony Section  
Scale: 1:10



02 Balcony Elevation  
Scale: 1:10



03 Balcony Plan  
Scale: 1:10

This drawing is for the purposes of legislative and regulatory compliance and is not to be used for construction under any circumstances.

NOTES: Do not scale this drawing. All dimensions to be checked on site prior to commencement or manufacture.  
The New Construction (Design and Management) Regulations 2015 come into force on 6 April 2015. The revised legislation applies to all projects including for the first time domestic jobs:  
• All projects must have a written construction phase plan  
• The role of CDM co-ordinator in the previous CDM Regs 2007 has been removed and replaced with a new role of principal designer.  
• There is a duty to make sure all persons doing the job have the right skills, knowledge, training and experience.  
• Some domestic and non-domestic projects will have to be notified to the Health & Safety Executive by the client.  
It is the responsibility of the Client to manage the Health and Safety of the project or nominate and agree a "Principal Designer".

ISSUED FOR  
TENDER

All details referenced in call outs supersede general arrangement or larger depictions.

Rev	Date	By	Chk	Comment
T1	10.06.15	RKC		DRAWING ISSUED FOR TENDER

**RAPID KEYSTONE**  
CONSTRUCTION CONSULTANCY LTD  
WWW.RKCC LTD.CO.UK 07985595488 RKCC@RKCC LTD.CO.UK  
DESIGN ARCHITECTURE ENGINEERING CONSTRUCTION PLANNING  
SCHEDULING PROJECT MANAGEMENT SURVEYING SPECIFICATION  
BUILDING REGULATIONS CONTROLS COSTS QUANTITY SURVEYING CIVIL  
ENGINEERING SITE MANAGEMENT STRUCTURAL ENGINEERING  
ENVIRONMENTAL ENGINEERING SETTING OUT CDM ESTIMATING

Client  
Penny / Tina  
Stonebank  
Darvey

Project Title  
Proposed Garage and First Floor Extension  
2 Rodmell Avenue  
Saltdan  
East Sussex BN2 8LT

Drawing Title  
Proposed  
Balcony  
Fabrication  
Details

Drawn by: RKC	Scale: 1:50@A1	Date: 04.06.15
Designed by: -	Checked by: -	Approved by: -

File Ref.: X:\307926 RODMELL\ARCH\DWG\001.DWG 307926-A-550.DWG - T1 20.09.24\13:29:22

Drawing No. 307926-A-550	Rev. T1
-----------------------------	------------

NB: All information based on supplied third party survey information.  
All discrepancies to be reported to RKC immediately upon discovery.

All Mechanical & Electrical and Structural information shown indicative only  
Please refer to Mechanical & Electrical and Structural documentation

Door Schedule 307926-A-600



Job N°	307926
Discipline:	Architectural
Client:	Stonebank / Darvey
Tenant:	Client
Status:	TENDER
Rev & date:	T1


[illegible]

**General Notes:**

- [illegible]



307926 - 2 Rodmell Avenue Saltdean																								
Window Schedule 307926-A-601																								
Job N°		307926																						
Discipline:		Architectural																						
Client:		Stonebank / Darvey																						
Tenant:		Client																						
Status:		TENDER																						
Rev & date:		T1																						
window Tag Code	Type	Level	Room N°	Opening N°	Room Name	Structural Opening Size (IMPORTANT: SITE CHECK ALL)			Window Frame Size			Fire Rating (windo w & Frame)	Acoustic Rating Rw(dB)	Finishes		Opening Light		Safety Glass Req'd	Access Control Req'd (Y/N)	Rest rictors Req'd	Assembly Elevation Type	NBS Ref. (L10/___)	Comments	
						Height	Width	Depth	Height	Width	Depth			Frame	Glass	Height	Width							
W-01-06-01	W	01	06	01	Existing Reception	tbc	tbc	300	tbc	tbc	tbc	n/a	n/a	PVCu	PVCu	tbc	tbc	Yes	Yes	n/a	F	L10/L40	Full height triple glazed window	
W-01-12-01	W	01	12	01	New Double Garage	tbc	910	392.5	tbc	tbc	tbc	n/a	n/a	PVCu	PVCu	n/a	n/a	Tough	n/a	n/a	E	L10/L40	Toughened glazed security unopenable window unit	
W-02-07-01	W	02	07	01	New Landing	n/a	600d	n/a	n/a	n/a	25	n/a	n/a	PPC	PVCu	n/a	n/a	n/a	n/a	n/a	G	L10/L40	600mm dia Monodraught Sun Pipe	
W-02-07-02	W	02	07	02	New Landing	n/a	600d	n/a	n/a	n/a	25	n/a	n/a	PPC	PVCu	n/a	n/a	n/a	n/a	n/a	G	L10/L40	600mm dia Monodraught Sun Pipe	
W-02-08-01	W	02	08	01	New Master Bedroom	tbc	2710	392.5	tbc	tbc	tbc	n/a	n/a	PVCU	PVCu	tbc	tbc	n/a	Locks	n/a	A	L10/L40	White PVCu double glazed faux leaded bay unit with opening side lights to match bay existing	
W-02-09-01	W	02	09	01	New Dressing Room	tbc	590	392.5	tbc	tbc	570	n/a	n/a	PVCU	PVCu	tbc	tbc	n/a	Locks	n/a	D	L10/L40	White PVCu double glazed faux leaded unit with fan light to match existing dressing room	
W-02-10-01	W	02	10	01	New En Suite Bathroom	tbc	910	392.5	tbc	tbc	900	n/a	n/a	PVCU	PVCu	tbc	tbc	n/a	Locks	n/a	C	L10/L40	White PVCu double glazed faux leaded unit with opening casement to match existing bathroom	
---																								
---																								
General Notes:																								
1. All structural opening sizes are to be checked on site prior to manufacture of window linings/frames and units. Specialist window supplier is responsible for all handing of window units as shown on the General Arrangement Floor Plans.																								
3. window unit thicknesses to be determined by the specialist window supplier, based on the fire and acoustic requirements provided.																								
4. window sizes to be determined by the specialist window supplier, in accordance with the fire requirements provided.																								
5. Acoustic and fire seals specification to be determined by the specialist window supplier, in accordance with the fire and acoustic requirements provided.																								
6. Final lining details to be determined by the specialist window supplier.																								
7. Refer also to RKC NBS work-sections L10 + L40 generally.																								







2-Rodmell-Ave-Saltdean

TENDER ISSUE

02 June 2015



## Table of Contents

Title	Page
A	JCT 2011 Minor Works Building Contract with Contractor's Design
A10	PROJECT PARTICULARS
A11	TENDER AND CONTRACT DOCUMENTS
A12	THE SITE/ EXISTING BUILDINGS
A13	DESCRIPTION OF THE WORK
A20	JCT MINOR WORKS BUILDING CONTRACT WITH CONTRACTOR'S DESIGN (MWD)
A30	TENDERING/ SUBLETTING/ SUPPLY
A31	PROVISION, CONTENT AND USE OF DOCUMENTS
A32	MANAGEMENT OF THE WORKS
A33	QUALITY STANDARDS/ CONTROL
A34	SECURITY/ SAFETY/ PROTECTION
A35	SPECIFIC LIMITATIONS ON METHOD/ SEQUENCE/ TIMING
A36	FACILITIES/ TEMPORARY WORK/ SERVICES



A

JCT 2011 Minor Works Building Contract with Contractor's Design





A10  
PROJECT PARTICULARS

## A10 PROJECT PARTICULARS

### 110 THE PROJECT

- Name: 2 Rodmell .
- Nature: Domestic Extension.
- Location: 2 Rodmell Avenue, Saltdean.
- Length of contract: 10 weeks.

### 120 EMPLOYER (CLIENT)

- Name: Penny & Tina Stonebank Darvey.
- Address: 2 Rodmell Avenue Saltdean.
- Contact: Penny & Tina Stonebank Darvey.
- Telephone: 01273307926.
- Email: td.tinadiane@yahoo.com, penny.poppy@yahoo.com.

### 130 PRINCIPAL CONTRACTOR (CDM)

- Name: TBC.
- Address: TBC.
- Contact: TBC.
- Telephone: TBC.
- E-mail: TBC.

### 150A PRINCIPLE DESIGNER

- Name: Main Contractor.
- Address: TBC.
- Contact: TBC.
- Telephone: TBC.
- E-mail: TBC.





A11

TENDER AND CONTRACT DOCUMENTS

## A11 TENDER AND CONTRACT DOCUMENTS

### 110 TENDER DRAWINGS

- The tender drawings are: As Drawing Transmittal sheet 30792-A-DTS.

### 120 CONTRACT DRAWINGS

- The Contract Drawings: The same as the tender drawings.

### 160 PRECONSTRUCTION INFORMATION

- Format: The Preconstruction information is described in these preliminaries in Section A34. It refers to information given elsewhere in the preliminaries and other tender documents.

### 180A OTHER DOCUMENTS

- Inspection: Drawings and other documents relating to the Contract but not included in the tender documents may be seen by appointment during arranged hours at the site address 2 Rodmell Avenue, Saltdean.
- The documents include: Construction drawings, Planning Approval, Buildings Regulation drawings..



A12  
THE SITE/ EXISTING BUILDINGS

## A12 THE SITE/ EXISTING BUILDINGS

### 110 THE SITE

- Description: 2 story extension to domestic dwelling consisting of GF double garage with living accommodations above with pitched roof abutting and interfacing with existing side of main building all built with materials and colours to match existing including new drainage connections to existing systems to conform and comply to all UK legislation, regulations and British standards accordingly..

### 120 EXISTING BUILDINGS ON/ ADJACENT TO THE SITE

- Description: 3 bed domestic dwelling.

### 140 EXISTING UTILITIES AND SERVICES

- Drawings: (Information shown is indicative only): Contractor to ascertain extent and effect of existing.
- Other information: Contractor to obtain from Authorities as required..

### 160A SOILS AND GROUND WATER

- Information: Contractor to ascertain.

### 170A SITE INVESTIGATION

- Report: Contractor to ascertain.

### 180A HEALTH AND SAFETY FILE

- Availability for inspection: The Health and Safety File for the site/ building may be seen by appointment during normal office hours at: Contractors site accommodation.

### 200 ACCESS TO THE SITE

- Description: To be determined by Contractor in agreement with Client.
- Limitations: See above.

### 210 PARKING

- Restrictions on parking of the Contractor's and employees' vehicles: Contractor to ensure employees/tradesmen/subcontractors parking does not inconvenience local residence unduly.

### 220A USE OF THE SITE

- General: Do not use the site for any purpose other than carrying out the Works.
- Limitations: None.

### 230 SURROUNDING LAND/ BUILDING USES

- General: Adjacent or nearby uses or activities are as follows:
  - None.



240     HEALTH AND SAFETY HAZARDS

- General: The nature and condition of the site/ building cannot be fully and certainly ascertained before it is opened up. However the following hazards are or may be present:
  - Contractor to ascertain..
- Information: The accuracy and sufficiency of this information is not guaranteed by the Employer or the Employer's representative. Ascertain if any additional information is required to ensure the safety of all persons and the Works.
- Site staff: Draw to the attention of all personnel working on the site the nature of any possible contamination and the need to take appropriate precautionary measures.

250     SITE VISIT

- Assessment: Ascertain the nature of the site, access thereto and all local conditions and restrictions likely to affect the execution of the Works.
- Arrangements for visit: Agree with Client.



A13

DESCRIPTION OF THE WORK



### A13 DESCRIPTION OF THE WORK

110     PREPARATORY WORK BY OTHERS

- Works: Carried out under a separate contract and completed before the start of work on site for this Contract.
- Description: Preparation of drawings and documents representative of the works required for planning, building regulation approval, tendering and construction.

120     THE WORKS

- Description: 2 story extension to domestic dwelling consisting of GF double garage with living accommodations above with pitched roof abutting and interfacing with existing side of main building all built with materials and colours to match existing including new drainage connections to existing systems to conform and comply to all UK legislation, regulations and British standards accordingly.

130     WORK BY OTHERS CONCURRENT WITH THE CONTRACT

- Description: None.

140     COMPLETION WORK BY OTHERS

- Description: None.



A20

JCT MINOR WORKS BUILDING CONTRACT WITH CONTRACTOR'S  
DESIGN (MWD)

## A20 JCT MINOR WORKS BUILDING CONTRACT WITH CONTRACTOR'S DESIGN (MWD)

### JCT MINOR WORKS BUILDING CONTRACT WITH CONTRACTOR'S DESIGN

- The Contract: JCT Minor Works Building Contract with Contractor's Design 2011 Edition.
- Requirement: Allow for the obligations, liabilities and services described.

### THE RECITALS

#### First - THE WORKS AND THE CONTRACT ADMINISTRATOR

- The work comprises: That described in the project description clause A13/120.
- Architect/ Contract Administrator: See clause A10/140.

#### FIRST - THE WORKS AND THE CONTRACT ADMINISTRATOR

- The work comprises: That described in the project description clause A13/120 .3

#### Second - CONTRACTOR'S DESIGNED PORTION

- The Works include the design and construction of:
  - Parts or items necessary to ensure good workmanship and buildability as to conform and comply to all British Regulations and standards and good practice..

#### THIRD - CONTRACT DOCUMENTS

- Contract drawings: As listed in clause A11/120.

#### Fourth - PRICED DOCUMENTS

- Documents to be priced or provided by the Contractor: Contract specification.

### THE ARTICLES

#### 4 AND 5 - CDM COORDINATOR/ PRINCIPAL CONTRACTOR

- Principle Designer: See clause A10/150.
- Principal Contractor: See clause A10/130.

### CONTRACT PARTICULARS

#### Fifth Recital and clause 4.2 - CONSTRUCTION INDUSTRY SCHEME (CIS)

- Employer at base date is not a 'contractor' for the purposes of the CIS.

#### Sixth Recital - CDM REGULATIONS

- The project is notifiable.

#### Seventh Recital - FRAMEWORK AGREEMENT

- Framework agreement: Does not apply.
- Details:
  - Date: N/a.
  - Title: n/a.
  - Parties: n/a.



Clause 2.3 - COMMENCEMENT AND COMPLETION

- Date for Commencement of the Works: TBC.
- Date for Completion: TBC.

Clause 2.9 - LIQUIDATED DAMAGES

- At the rate of TBC per calendar week or pro-rata thereto.

Clause 2.11 - RECTIFICATION PERIOD

- Period: One months from the date of practical completion.

Clause 4.3 - PERCENTAGE OF THE TOTAL VALUE OF THE WORK ETC.

- Percentage: 95 per cent.

Clause 4.4 - PERCENTAGE OF THE TOTAL AMOUNT TO BE PAID TO THE CONTRACTOR

- Percentage: 95%.

Clause 4.8.1 - SUPPLY OF DOCUMENTATION FOR COMPUTATION OF AMOUNT TO BE FINALLY CERTIFIED

- Period: One month from the date of practical completion.

CLAUSE 4.11 AND SCHEDULE 2 - CONTRIBUTION, LEVY AND TAX CHANGES

- Clause 4.11 and Schedule 2 will be deleted.

Clause 5.3.2 - CONTRACTOR'S INSURANCE - INJURY TO PERSONS OR PROPERTY

- Insurance cover (for any one occurrence or series of occurrences arising out of one event): Not less than £10,000,000.

CLAUSES 5.4A, 5.4B AND 5.4C - INSURANCE OF THE WORKS ETC

- Clause 5.4A (Works insurance by Contractor applies.

Clause 7.2 - ADJUDICATION

- The Adjudicator is: TBC.
- Nominating body: Royal Institution of Chartered Surveyors.

Schedule 1 paragraph 2.1 - ARBITRATION

- Appointor of Arbitrator (and of any replacement): President or a Vice president of the: The Royal Institution of Chartered Surveyors.

THE CONDITIONS

JCT PUBLIC SECTOR SUPPLEMENT

- Document: The JCT Public Sector Supplement 2011 - Fair Payment, Transparency and Building Information Modelling.
- Fair Payment provisions Apply.
- Transparency provisions Do not apply.
- Building information modelling provisions Do not apply.
  - The BIM protocol n/a.

EXECUTION

- The Contract: Will be executed as a deed.

CONTRACT GUARANTEE BOND

- Contract Guarantee Bond: Standard Form or Bond conforming to the ABI standards..



A30

TENDERING/ SUBLETTING/ SUPPLY



## A30 TENDERING/ SUBLETTING/ SUPPLY

### MAIN CONTRACT TENDERING

#### 110 SCOPE

- General: These conditions are supplementary to those stated in the Invitation to Tender and on the form of tender.

#### 145A TENDERING PROCEDURE

- General: In accordance with NBS Guide to Tendering for Construction Projects.
- Errors: Alternative 2 is to apply.

#### 160 EXCLUSIONS

- Inability to tender: Immediately inform if any parts of the work as defined in the tender documents cannot be tendered.
- Relevant parts of the work: Define those parts, stating reasons for the inability to tender.

#### 170 ACCEPTANCE OF TENDER

- Acceptance: No guarantee is offered that any tender will be recommended for acceptance or be accepted, or that reasons for non acceptance will be given.
- Costs: No liability is accepted for any cost incurred in the preparation of any tender.

### PRICING/ SUBMISSION OF DOCUMENTS

#### 250 PRICED DOCUMENTS

- Alterations: Do not alter or qualify the priced documents without written consent. Tenders containing unauthorised alterations or qualifications may be rejected.
- Measurements: Where not stated, ascertain from the drawings.
- Deemed included: Costs relating to items, which are not priced, will be deemed to have been included elsewhere in the tender.
- Submit: With tender.

#### 310 TENDER

- General: Tenders must include for all work shown or described in the tender documents as a whole or clearly apparent as being necessary for the complete and proper execution of the Works.

#### 440A SCHEDULE OF RATES

- Schedule of rates (unpriced): Included with the tender documents. The Contractor may insert additional items. All items must be fully priced.
- Fully priced copy: Submit with the tender.

#### 500 TENDER STAGE METHOD STATEMENTS

- Method statements: Prepare, describing how and when the following is to be carried out:
  - RAMS.
- Statements: Submit with the tender.

530     SUBSTITUTE PRODUCTS

- Details: If products of different manufacture to those specified are proposed, submit details with the tender giving reasons for each proposed substitution. Substitutions, which have not been notified at tender stage, may not be considered.
- Compliance: Substitutions accepted will be subject to the verification requirements of clause A31/200.

550     HEALTH AND SAFETY INFORMATION

- Content: Describe the organisation and resources to safeguard the health and safety of operatives, including those of subcontractors, and of any person whom the Works may affect.
- Include:
  - A copy of the contractor's health and safety policy document, including risk assessment procedures.
  - Accident and sickness records for the past five years.
  - Records of previous Health and Safety Executive enforcement action.
  - Records of training and training policy.
  - The number and type of staff responsible for health and safety on this project with details of their qualifications and duties.
- Submit: With the Tender.

570     OUTLINE CONSTRUCTION PHASE HEALTH AND SAFETY PLAN

- Content: Submit the following information within one week of request:
  - Method statements on how risks from hazards identified in the pre-construction information and other hazards identified by the contractor will be addressed.
  - Details of the management structure and responsibilities.
  - Arrangements for issuing health and safety directions.
  - Procedures for informing other contractors and employees of health and safety hazards.
  - Selection procedures for ensuring competency of other contractors, the self-employed and designers.
  - Procedures for communications between the project team, other contractors and site operatives.
  - Arrangements for cooperation and coordination between contractors.
  - Procedures for carrying out risk assessment and for managing and controlling the risk.
  - Emergency procedures including those for fire prevention and escape.
  - Arrangements for ensuring that all accidents, illness and dangerous occurrences are recorded.
  - Arrangements for welfare facilities.
  - Procedures for ensuring that all persons on site have received relevant health and safety information and training.
  - Arrangements for consulting with and taking the views of people on site.
  - Arrangements for preparing site rules and drawing them to the attention of those affected and ensuring their compliance.
  - Monitoring procedures to ensure compliance with site rules, selection and management procedures, health and safety standards and statutory requirements.
  - Review procedures to obtain feedback.

590     SITE WASTE MANAGEMENT PLAN

- Person responsible for developing the Plan: The Contractor.
- Content: Include details of:
  - Principal Contractor for the purposes of the regulations.
  - Location of the site.
  - Description of the project.
  - Estimated project cost.
  - Types and quantities of waste that will be generated.
  - Resource management options for these wastes including proposals for minimization/ reuse/ recycling.
  - The use of appropriate and licensed waste management contractors.
  - Record keeping procedures.
  - Waste auditing protocols.
- Additional requirements: None.
- Submit with tender.

599     FREEDOM OF INFORMATION

- Records: Retain, make available for inspection and supply on request information reasonably required to allow response to requests made under the provisions of the Freedom of Information Act.
- Determination: Submit requests received. Do not supply information outside the project participants without express written permission.
- Confidentiality: Maintain at all times.





## A31 PROVISION, CONTENT AND USE OF DOCUMENTS

### DEFINITIONS AND INTERPRETATIONS

#### 110 DEFINITIONS

- Meaning: Terms, derived terms and synonyms used in the preliminaries/ general conditions and specification are as stated therein or in the appropriate British Standard or British Standard glossary.

#### 120 COMMUNICATION

- Definition: Includes advise, inform, submit, give notice, instruct, agree, confirm, seek or obtain information, consent or instructions, or make arrangements.
- Format: In writing to the person named in clause A10/140 unless specified otherwise.
- Response: Do not proceed until response has been received.

#### 130 PRODUCTS

- Definition: Materials, both manufactured and naturally occurring, and goods, including components, equipment and accessories, intended for the permanent incorporation in the Works.
- Includes: Goods, plant, materials, site materials and things for incorporation into the Works.

#### 135 SITE EQUIPMENT

- Definition: All appliances or things of whatsoever nature required in or about the construction for completion of the Works but not materials or other things intended to form or forming part of the Permanent Works.
- Includes: Construction appliances, vehicles, consumables, tools, temporary works, scaffolding, cabins and other site facilities.

#### 140 DRAWINGS

- Definitions: To BSRIA BG 6 A design framework for building services. Design activities and drawing definitions.
- CAD data: In accordance with BS 1192.

#### 145A CONTRACTOR'S CHOICE

- Meaning: Selection and responsibility delegated to the Contractor but subject to approval by the designer.

#### 150 CONTRACTOR'S DESIGN

- Meaning: Design to be carried out or completed by the Contractor and supported by appropriate contractual arrangements, to correspond with specified requirements.

#### 155 SUBMIT PROPOSALS

- Meaning: Submit information in response to specified requirements.

160     TERMS USED IN SPECIFICATION

- Remove: Disconnect, dismantle as necessary and take out the designated products or work and associated accessories, fixings, supports, linings and bedding materials. Dispose of unwanted materials. Excludes taking out and disposing of associated pipework, wiring, ductwork or other services.
- Fix: Receive, unload, handle, store, protect, place and fasten in position and disposal of waste and surplus packaging including all labour, materials and site equipment for that purpose.
- Supply and fix: As above, but including supply of products to be fixed. All products to be supplied and fixed unless stated otherwise.
- Keep for reuse: Do not damage designated products or work. Clean off bedding and jointing materials. Stack neatly, adequately protect and store until required by the Employer/ Purchaser or for use in the Works as instructed.
- Make good: Execute local remedial work to designated work. Make secure, sound and neat. Excludes redecoration and/ or replacement.
- Replace: Supply and fix new products matching those removed. Execute work to match original new state of that removed.
- Repair: Execute remedial work to designated products. Make secure, sound and neat. Excludes redecoration and/ or replacement.
- Refix: Fix removed products.
- Ease: Adjust moving parts of designated products or work to achieve free movement and good fit in open and closed positions.
- Match existing: Provide products and work of the same appearance and features as the original, excluding ageing and weathering. Make joints between existing and new work as inconspicuous as possible.
- System: Equipment, accessories, controls, supports and ancillary items, including installation, necessary for that section of the work to function.

170     MANUFACTURER AND PRODUCT REFERENCE

- Definition: When used in this combination:
  - Manufacturer: The firm under whose name the particular product is marketed.
  - Product reference: The proprietary brand name and/ or reference by which the particular product is identified.
- Currency: References are to the particular product as specified in the manufacturer's technical literature current on the date of the invitation to tender.

200     SUBSTITUTION OF PRODUCTS

- Products: If an alternative product to that specified is proposed, obtain approval before ordering the product.
- Reasons: Submit reasons for the proposed substitution.
- Documentation: Submit relevant information, including:
  - manufacturer and product reference;
  - cost;
  - availability;
  - relevant standards;
  - performance;
  - function;
  - compatibility of accessories;
  - proposed revisions to drawings and specification;
  - compatibility with adjacent work;
  - appearance;
  - copy of warranty/ guarantee.
- Alterations to adjacent work: If needed, advise scope, nature and cost.
- Manufacturers' guarantees: If substitution is accepted, submit before ordering products.



210     CROSS REFERENCES

- Accuracy: Check remainder of the annotation or item description against the terminology used in the section or clause referred to.
- Related terminology: Where a numerical cross-reference is not given the relevant sections and clauses of the specification will apply.
- Relevant clauses: Clauses in the referred to specification section dealing with general matters, ancillary products and execution also apply.
- Discrepancy or ambiguity: Before proceeding, obtain clarification or instructions.

220     REFERENCED DOCUMENTS

- Conflicts: Specification prevails over referenced documents.

230     EQUIVALENT PRODUCTS

- Inadvertent omission: Wherever products are specified by proprietary name the phrase 'or equivalent' is to be deemed included.

240     SUBSTITUTION OF STANDARDS

- Specification to British Standard or European Standard: Substitution may be proposed complying with a grade or category within a national standard of another Member State of the European Community or an international standard recognised in the UK.
- Before ordering: Submit notification of all such substitutions.
- Documentary evidence: Submit for verification when requested as detailed in clause A31/200. Any submitted foreign language documents must be accompanied by certified translations into English.

250     CURRENCY OF DOCUMENTS

- Currency: References to published documents are to the editions, including amendments and revisions, current on the date of the Invitation to Tender.

260     SIZES

- General dimensions: Products are specified by their co-ordinating sizes.
- Timber: Cross section dimensions shown on drawings are:
  - Target sizes as defined in BS EN 336 for structural softwood and hardwood sections.
  - Finished sizes for non-structural softwood or hardwood sawn and further processed sections.

DOCUMENTS PROVIDED ON BEHALF OF THE EMPLOYER

410A     ADDITIONAL COPIES OF DRAWINGS/ DOCUMENTS

- Additional copies: Issued on request and charged to the Contractor.

440     DIMENSIONS

- Scaled dimensions: Do not rely on.

450     MEASURED QUANTITIES

- Ordering products and constructing the Works: The accuracy and sufficiency of the measured quantities is not guaranteed.
- Precedence: The specification and drawings shall override the measured quantities.

460     THE SPECIFICATION

- Coordination: All sections must be read in conjunction with Main Contract Preliminaries/ General conditions.

DOCUMENTS PROVIDED BY CONTRACTOR/ SUBCONTRACTORS/ SUPPLIERS

620     AS BUILT DRAWINGS AND INFORMATION

- Contractor designed work: Provide drawings/ information:
  - General Arrangement plans, elevations and installations manuals, instructions and warranties. .
- Submit: At least two weeks before date for completion.

640     MAINTENANCE INSTRUCTIONS AND GUARANTEES

- Components and equipment: Obtain or retain copies, register with manufacturer and hand over on or before completion of the Works.
- Information location: In Building Manual.
- Emergency call out services: Provide telephone numbers for use after completion. Extent of cover: office hours only.

650     ENERGY RATING CALCULATION

- Calculation documentation:
  - Number of copies: 1.
  - Deliver to: Energy Performance Certificate Assessor and also lodge in the Building Manual.



A32  
MANAGEMENT OF THE WORKS



## A32 MANAGEMENT OF THE WORKS

### GENERALLY

#### 110 SUPERVISION

- General: Accept responsibility for coordination, supervision and administration of the Works, including subcontracts.
- Coordination: Arrange and monitor a programme with each subcontractor, supplier, local authority and statutory undertaker, and obtain and supply information as necessary for coordination of the work.

#### 115 CONSIDERATE CONSTRUCTORS SCHEME

- Registration: Before starting work, register the site and pay the appropriate fee:
- Contact:
  - Address: Considerate Constructors Scheme Office, PO Box 75, Great Amwell, Ware, Hertfordshire, SG12 0YX.
  - Tel. 01920 485959.
  - Fax. 01920 485958.
  - Free phone 0800 7831423
  - Web. [www.ccscheme.org.uk](http://www.ccscheme.org.uk)
  - E mail. [enquiries@ccscheme.org.uk](mailto:enquiries@ccscheme.org.uk)
- Standard: Comply with the Scheme's Code of Considerate Practice.
  - Minimum compliance level: Compliance.

#### 120 INSURANCE

- Documentary evidence: Before starting work on site submit details, and/ or policies and receipts for the insurances required by the Conditions of Contract.

#### 130 INSURANCE CLAIMS

- Notice: If any event occurs which may give rise to any claim or proceeding in respect of loss or damage to the Works or injury or damage to persons or property arising out of the Works, immediately give notice to the Employer, the person named in clause A10/140 and the Insurers.
- Failure to notify: Indemnify the Employer against any loss, which may be caused by failure to give such notice.

#### 140 CLIMATIC CONDITIONS

- Information: Record accurately and retain:
  - Daily maximum and minimum air temperatures (including overnight).
  - Delays due to adverse weather, including description of the weather, types of work affected and number of hours lost.

#### 150 OWNERSHIP

- Alteration/ clearance work: Materials arising become the property of the Contractor except where otherwise stated. Remove from site as work proceeds.

## PROGRAMME/ PROGRESS

### 210 PROGRAMME

- Master programme: Immediately when requested and before starting work on site submit in an approved form a master programme for the Works, which must include details of:
  - Planning and mobilisation by the Contractor
  - Subcontractor's work.
  - Running in, adjustment, commissioning and testing of all engineering services and installations.
  - Work resulting from instructions issued in regard to the expenditure of provisional sums.
  - Work by others concurrent with the Contract.
- Submit one copy.

### 245 START OF WORK ON SITE

- Notice: Before the proposed date for start of work on site give minimum notice of one week.

### 260 SITE MEETINGS

- General: Site meetings will be held to review progress and other matters arising from administration of the Contract.
- Frequency: Every two weeks.
- Location: Site.
- Accommodation: Ensure availability at the time of such meetings.
- Attendees: Attend meetings and inform subcontractors and suppliers when their presence is required.
- Chairperson (who will also take and distribute minutes): Employer's representative.

### 280 PHOTOGRAPHS

- Number of locations: 6.
- Frequency of intervals: Weekly minimum.
- Image format: JPG.
- Number of images from each location: 2.
- Other requirements: None

### 290 NOTICE OF COMPLETION

- Requirement: Give notice of the anticipated dates of completion of the whole or parts of the Works.
- Associated works: Ensure necessary access, services and facilities are complete.
- Period of notice (minimum): Two weeks.

### 310 EXTENSIONS OF TIME

- Notice: When a notice of the cause of any delay or likely delay in the progress of the works is given under the contract, written notice must also be given of all other causes which apply concurrently.
- Details: As soon as possible submit:
  - Relevant particulars of the expected effects, if appropriate, related to the concurrent causes.
  - An estimate of the extent, if any, of the expected delay in the completion of the Works beyond the date for completion.
  - All other relevant information required.

#### CONTROL OF COST

##### 420 REMOVAL/ REPLACEMENT OF EXISTING WORK

- Extent and location: Agree before commencement.
- Execution: Carry out in ways that minimize the extent of work.

##### 430 PROPOSED INSTRUCTIONS

- Estimates: If a proposed instruction requests an estimate of cost, submit without delay and in any case within seven days.

##### 440 MEASUREMENT

- Covered work: Give notice before covering work required to be measured.

##### 450 DAYWORK VOUCHERS

- Before commencing work: Give reasonable notice to person countersigning daywork vouchers.
- Content: Before delivery each voucher must be:
  - Referenced to the instruction under which the work is authorised.
  - Signed by the Contractor's person in charge as evidence that the operatives' names, the time daily spent by each and the equipment and products employed are correct.
- Submit: By the end of the week in which the work has been executed.

##### 470 PRODUCTS NOT INCORPORATED INTO THE WORKS

- Ownership: At the time of each valuation, supply details of those products not incorporated into the Works which are subject to any reservation of title inconsistent with passing of property as required by the Conditions of Contract, together with their respective values.
- Evidence: When requested, provide evidence of freedom of reservation of title.





A33

QUALITY STANDARDS/ CONTROL

## A33 QUALITY STANDARDS/ CONTROL

### STANDARDS OF PRODUCTS AND EXECUTIONS

#### 110 INCOMPLETE DOCUMENTATION

- General: Where and to the extent that products or work are not fully documented, they are to be:
    - Of a kind and standard appropriate to the nature and character of that part of the Works where they will be used.
    - Suitable for the purposes stated or reasonably to be inferred from the project documents.
- Contract documents: Omissions or errors in description and/ or quantity shall not vitiate the Contract nor release the Contractor from any obligations or liabilities under the Contract.

#### 120 WORKMANSHIP SKILLS

- Operatives: Appropriately skilled and experienced for the type and quality of work.
- Registration: With Construction Skills Certification Scheme.
- Evidence: Operatives must produce evidence of skills/ qualifications when requested.

#### 130 QUALITY OF PRODUCTS

- Generally: New. (Proposals for recycled products may be considered).
- Supply of each product: From the same source or manufacturer.
- Whole quantity of each product required to complete the Works: Consistent kind, size, quality and overall appearance.
- Tolerances: Where critical, measure a sufficient quantity to determine compliance.
- Deterioration: Prevent. Order in suitable quantities to a programme and use in appropriate sequence.

#### 135 QUALITY OF EXECUTION

- Generally: Fix, apply, install or lay products securely, accurately, plumb, neatly and in alignment.
- Colour batching: Do not use different colour batches where they can be seen together.
- Dimensions: Check on-site dimensions.
- Finished work: Without defects, e.g. not damaged, disfigured, dirty, faulty, or out of tolerance.
- Location and fixing of products: Adjust joints open to view so they are even and regular.

#### 140 COMPLIANCE

- Compliance with proprietary specifications: Retain on site evidence that the proprietary product specified has been supplied.
- Compliance with performance specifications: Submit evidence of compliance, including test reports indicating:
  - Properties tested.
  - Pass/ fail criteria.
  - Test methods and procedures.
  - Test results.
  - Identity of testing agency.
  - Test dates and times.
  - Identities of witnesses.
  - Analysis of results.

150     INSPECTIONS

- Products and executions: Inspection or any other action must not be taken as approval unless confirmed in writing referring to:
  - Date of inspection.
  - Part of the work inspected.
  - Respects or characteristics which are approved.
  - Extent and purpose of the approval.
  - Any associated conditions.

160     RELATED WORK

- Details: Provide all trades with necessary details of related types of work. Before starting each new type or section of work ensure previous related work is:
  - Appropriately complete.
  - In accordance with the project documents.
  - To a suitable standard.
  - In a suitable condition to receive the new work.
- Preparatory work: Ensure all necessary preparatory work has been carried out.

170     MANUFACTURER'S RECOMMENDATIONS/ INSTRUCTIONS

- General: Comply with manufacturer's printed recommendations and instructions current on the date of the Invitation to tender.
- Changes to recommendations or instructions: Submit details.
- Ancillary products and accessories: Use those supplied or recommended by main product manufacturer.
- Agrément certified products: Comply with limitations, recommendations and requirements of relevant valid certificates.

180     WATER FOR THE WORKS

- Mains supply: Clean and uncontaminated.
- Other: Do not use until:
  - Evidence of suitability is provided.
  - Tested to BS EN 1008 if instructed.

SAMPLES/ APPROVALS

210     SAMPLES

- Products or executions: Comply with all other specification requirements and in respect of the stated or implied characteristics either:
  - To an express approval.
  - To match a sample expressly approved as a standard for the purpose.

220     APPROVAL OF PRODUCTS

- Submissions, samples, inspections and tests: Undertake or arrange to suit the Works programme.
- Approval: Relates to a sample of the product and not to the product as used in the Works. Do not confirm orders or use the product until approval of the sample has been obtained.
- Complying sample: Retain in good, clean condition on site. Remove when no longer required.



## 230 APPROVAL OF EXECUTION

- Submissions, samples, inspections and tests: Undertake or arrange to suit the Works programme.
- Approval: Relates to the stated characteristics of the sample. (If approval of the finished work as a whole is required this is specified separately). Do not conceal, or proceed with affected work until compliance with requirements is confirmed.
- Complying sample: Retain in good, clean condition on site. Remove when no longer required.

## ACCURACY/ SETTING OUT GENERALLY

### 320 SETTING OUT

- General: Submit details of methods and equipment to be used in setting out the Works.
- Levels and dimensions: Check and record the results on a copy of drawings. Notify discrepancies and obtain instructions before proceeding.
- Inform: When complete and before commencing construction.

### 330 APPEARANCE AND FIT

- Tolerances and dimensions: If likely to be critical to execution or difficult to achieve, as early as possible either:
  - Submit proposals; or
  - Arrange for inspection of appearance of relevant aspects of partially finished work.
- General tolerances (maximum): To BS 5606, tables 1 and 2.

### 340 CRITICAL DIMENSIONS

- Critical dimensions: Set out and construct the Works to ensure compliance with the tolerances stated.
- Location: Detailed on drawings 130-133.

### 350 LEVELS OF STRUCTURAL FLOORS

- Maximum tolerances for designed levels to be:
  - Floors to be self-finished, and floors to receive sheet or tile finishes directly bedded in adhesive: +/- 10 mm.
  - Floors to receive dry board/ panel construction with little or no tolerance on thickness: +/- 10 mm.
  - Floors to receive mastic asphalt flooring/ underlays directly: +/- 10 mm.
  - Floors to receive mastic asphalt flooring/ underlays laid on mastic asphalt levelling coat(s): +/- 15 mm.
  - Floors to receive fully bonded screeds/ toppings/ beds: +/- 15 mm.
  - Floors to receive unbonded or floating screeds/ beds: +/- 20 mm.

### 360 RECORD DRAWINGS

- Site setting out drawing: Record details of all grid lines, setting-out stations, benchmarks and profiles. Retain on site throughout the contract and hand over on completion.

## SERVICES GENERALLY

### 410 SERVICES REGULATIONS

- New or existing services: Comply with the Byelaws or Regulations of the relevant Statutory Authority.

### 420 WATER REGULATIONS/ BYELAWS NOTIFICATION

- Requirements: Notify Water Undertaker of any work carried out to or which affects new or existing services and submit any required plans, diagrams and details.
- Consent: Allow adequate time to receive Undertaker's consent before starting work. Inform immediately if consent is withheld or is granted subject to significant conditions.

430 WATER REGULATIONS/ BYELAWS CONTRACTOR'S CERTIFICATE

- On completion of the work: Submit (copy where also required to the Water Undertaker) a certificate including:
  - The address of the premises.
  - A brief description of the new installation and/ or work carried out to an existing installation.
  - The Contractor's name and address.
  - A statement that the installation complies with the relevant Water Regulations or Byelaws.
  - The name and signature of the individual responsible for checking compliance.
  - The date on which the installation was checked.

435 ELECTRICAL INSTALLATION CERTIFICATE

- Submit: When relevant electrical work is completed.
- Original certificate: To be lodged in the Building Manual.

440 GAS, OIL AND SOLID FUEL APPLIANCE INSTALLATION CERTIFICATE

- Before the completion date stated in the Contract: Submit a certificate stating:
  - The address of the premises.
  - A brief description of the new installation and/ or work carried out to an existing installation.
  - Any special recommendations or instructions for the safe use and operation of appliances and flues.
  - The Contractor's name and address.
  - A statement that the installation complies with the appropriate safety, installation and use regulations.
  - The name, qualification and signature of the competent person responsible for checking compliance.
  - The date on which the installation was checked.
- Certificate location: Health and Safety File.

445 SERVICE RUNS

- General: Provide adequate space and support for services, including unobstructed routes and fixings.
- Ducts, chases and holes: Form during construction rather than cut.
- Coordination with other works: Submit details of locations, types/ methods of fixing of services to fabric and identification of runs and fittings.

450 MECHANICAL AND ELECTRICAL SERVICES

- Final tests and commissioning: Carry out so that services are in full working order at completion of the Works.
- Building Regulations notice: Copy to be lodged in the Building Manual.

SUPERVISION/ INSPECTION/ DEFECTIVE WORK

525 ACCESS

- Extent: Provide at all reasonable times access to the Works and to other places of the Contractor or subcontractors where work is being prepared for the Contract.
- Designate: Contract Administrator.

540A DEFECTS IN EXISTING WORK

- Undocumented defects: When discovered, immediately give notice.  
Text or email image of significant defects to [robcooper2001@gmail.com](mailto:robcooper2001@gmail.com)  
Do not proceed with affected related work until response has been received.
- Documented remedial work: Do not execute work which may:
  - Hinder access to defective products or work; or
  - Be rendered abortive by remedial work.

560     TESTS AND INSPECTIONS

- Timing: Agree and record dates and times of tests and inspections to enable all affected parties to be represented.
- Confirmation: One working day prior to each such test or inspection. If sample or test is not ready, agree a new date and time.
- Records: Submit a copy of test certificates and retain copies on site.

570A    AIR PERMEABILITY

- Testing organization: UKAS Accredited. Registered by the British Institute of Non-destructive Testing.
- Method: Pressure test in accordance with Good Practice Guide 268.
- Permeability:
  - Internal to external pressure difference (maximum): 50Pascals.
  - Air leakage rate (maximum): 10 m<sup>3</sup>/(h.m<sup>2</sup>).
- Results: Submit no later than seven days following final test.
  - Content: Include test results and all supporting data.
  - Format: Hardcopy provided to Client and Building Control as required .

580     CONTINUITY OF THERMAL INSULATION

- Record and report: Confirm that work to new, renovated or upgraded thermal elements has been carried out to conform to specification. Include:
  - The address of the premises.
  - The Contractor's name and address.
  - The name, qualification and signature of the competent person responsible for checking compliance.
  - The date on which the installation was checked.
- Submit: Before completion of the Works.
- Copy: To be lodged in the Building Manual.

595A    ENERGY PERFORMANCE CERTIFICATE

- Assessment: Undertaken by a member of an approved accreditation scheme. Submit details of scheme name and evidence of qualifications when requested.
  - Building Type: Dwelling.
  - Method: Contractor's choice.
- Format:
  - Certificate:  
Submit: Before the date for completion stated in the contract.

610     DEFECTIVE PRODUCTS/ EXECUTIONS

- Proposals: Immediately any work or product is known, or appears, to be not in accordance with the Contract, submit proposals for opening up, inspection, testing, making good, adjustment of the Contract Sum, or removal and re-execution.
- Acceptability: Such proposals may be unacceptable and contrary instructions may be issued.



## WORK AT OR AFTER COMPLETION

### 710 WORK BEFORE COMPLETION

- General: Make good all damage consequent upon the Works.  
Temporary markings, coverings and protective wrappings: Remove unless otherwise instructed.
- Cleaning: Clean the Works thoroughly inside and out, including all accessible ducts and voids. Remove all splashes, deposits, efflorescence, rubbish and surplus materials.
- Cleaning materials and methods: As recommended by manufacturers of products being cleaned, and must not damage or disfigure other materials or construction.
- COSHH dated data sheets: Obtain for all materials used for cleaning and ensure they are used only as recommended by their manufacturers.
- Minor faults: Touch up in newly painted work, carefully matching colour and brushing out edges. Repaint badly marked areas back to suitable breaks or junctions.
- Moving parts of new work: Adjust, ease and lubricate as necessary to ensure easy and efficient operation, including doors, windows, drawers, ironmongery, appliances, valves and controls.

### 720 SECURITY AT COMPLETION

- General: Leave the Works secure with, where appropriate, all accesses closed and locked.
- Keys: Account for and adequately label all keys and hand over to Employer with itemized schedule, retaining duplicate schedule signed by Employer as a receipt.

### 730 MAKING GOOD DEFECTS

- Remedial work: Arrange access with Client.
- Rectification: Give reasonable notice for access to the various parts of the Works.
- Completion: Notify when remedial works have been completed.

A34

SECURITY/ SAFETY/ PROTECTION

## A34 SECURITY/ SAFETY/ PROTECTION

### SECURITY, HEALTH AND SAFETY

#### 120 EXECUTION HAZARDS

- Common hazards: Not listed. Control by good management and site practice.
- Significant hazards: The design of the project includes the following:
  - Hazard: Local site hazards, utilities and hazards.
  - Precautions assumed: All relevant regulations and H&S.
  - Specification reference: None.
  - Drawing reference: None.

#### 150A SECURITY

- Protection: Safeguard the site, the Works, products, materials, and any existing buildings affected by the Works from damage and theft.
- Access: Take all reasonable precautions to prevent unauthorized access to the site, the Works and adjoining property.

#### 160 STABILITY

- Responsibility: Maintain the stability and structural integrity of the Works and adjacent structures during the Contract.
- Design loads: Obtain details, support as necessary and prevent overloading.

#### 170A OCCUPIED PREMISES

- Extent: Existing buildings will be occupied and/ or used during the Contract as follows: Only during specific installations or connections. .
- Works: Carry out without undue inconvenience and nuisance and without danger to occupants and users.

#### 180 ACCESS CONTROL

- Controlled areas: Main house.
- Control type: Clients permission and consideration
- Authorised persons: Submit a list of the names of all persons requiring passes together with any other related information reasonably required.
- Return of control keys: When requested or on completion of the work to which the controlled area relates.

### PROTECT AGAINST THE FOLLOWING

#### 330 NOISE AND VIBRATION

- Standard: Comply with the recommendations of BS 5228-1, in particular clause 7.3, to minimize noise levels during the execution of the Works.
- Noise levels from the Works: Maximum level: 85 dB(A) when measured from 10m.
- Equipment: Fit compressors, percussion tools and vehicles with effective silencers of a type recommended by manufacturers of the compressors, tools or vehicles.
- Restrictions: Do not use:
  - Percussion tools and other noisy appliances without consent during the hours of all times..
  - Radios or other audio equipment or permit employees to use in ways or at times that may cause nuisance.



340     POLLUTION

- Prevention: Protect the site, the Works and the general environment including the atmosphere, land, streams and waterways against pollution.
- Contamination: If pollution occurs inform immediately, including to the appropriate Authorities and provide relevant information.

350B     PESTICIDES

- Use: Only where specified or approved, and then only suitable products listed on [www.pesticides.gov.uk](http://www.pesticides.gov.uk).
- Restrictions: Work near water, drainage ditches or land drains must comply with the 'Guidelines for the use of herbicides on weeds in or near watercourses and lakes'.
- Containers: Comply with manufacturer's disposal recommendations. Remove from site immediately empty or no longer required.
- Competence: Operatives must hold a BASIS Certificate of Competence, or work under supervision of a Certificate holder.

360     NUISANCE

- Duty: Prevent nuisance from smoke, dust, rubbish, vermin and other causes.
- Surface water: Prevent hazardous build-up on site, in excavations and to surrounding areas and roads.

370     ASBESTOS CONTAINING MATERIALS

- Duty: Report immediately any suspected materials discovered during execution of the Works.
  - Do not disturb.
  - Agree methods for safe removal or encapsulation.

371     DANGEROUS OR HAZARDOUS SUBSTANCES

- Duty: Report immediately suspected materials discovered during execution of the Works.
  - Do not disturb.
  - Agree methods for safe removal or remediation.

375A     ANTIQUITIES

- Duty: Report immediately any fossils, antiquities and other objects of interest or value discovered during execution of the Works.
- Preservation: Keep objects in the exact position and condition in which they were found.

380     FIRE PREVENTION

- Duty: Prevent personal injury or death, and damage to the Works or other property from fire.
- Standard: Comply with Joint Code of Practice 'Fire Prevention on Construction Sites', published by the Construction Confederation and The Fire Protection Association (The 'Joint Fire Code').

390     SMOKING ON SITE

- Smoking on site: Not permitted.

400A     BURNING ON SITE

- Burning on site: Not permitted.

410      MOISTURE

- Wetness or dampness: Prevent, where this may cause damage to the Works.
- Drying out: Control humidity and the application of heat to prevent:
  - Blistering and failure of adhesion.
  - Damage due to trapped moisture.
  - Excessive movement.

420      INFECTED TIMBER/ CONTAMINATED MATERIALS

- Removal: Where instructed to remove material affected by fungal/ insect attack from the building, minimize the risk of infecting other parts of the building.
- Testing: carry out and keep records of appropriate tests to demonstrate that hazards presented by concentrations of airborne particles, toxins and other micro organisms are within acceptable levels.

430      WASTE

- Includes: Rubbish, debris, spoil, surplus material, containers and packaging.
- General: Minimize production. Prevent accumulations. Keep the site and Works clean and tidy.
- Handling: Collect and store in suitable containers. Remove frequently and dispose off site in a safe and competent manner:
  - Non-hazardous material: In a manner approved by the Waste Regulation Authority.
  - Hazardous material: As directed by the Waste Regulation Authority and in accordance with relevant regulations.
- Recyclable material: Sort and dispose at a Materials Recycling Facility approved by the Waste Regulation Authority.
- Voids and cavities in the construction: Remove rubbish, dirt and residues before closing in.
- Waste transfer documentation: Retain on site.

440      ELECTROMAGNETIC INTERFERENCE

- Duty: Prevent excessive electromagnetic disturbance to apparatus outside the site.

## PROTECT THE FOLLOWING

### 510 EXISTING SERVICES

- Confirmation: Notify all service authorities, statutory undertakers and/ or adjacent owners of proposed works not less than one week before commencing site operations.
- Identification: Before starting work, check and mark positions of utilities/ services. Where positions are not shown on drawings obtain relevant details from service authorities, statutory undertakers or other owners.
- Work adjacent to services:
  - Comply with service authority's/ statutory undertaker's recommendations.
  - Adequately protect, and prevent damage to services: Do not interfere with their operation without consent of service authorities/ statutory undertakers or other owners.
- Identifying services:
  - Below ground: Use signboards, giving type and depth;
  - Overhead: Use headroom markers.
- Damage to services: If any results from execution of the Works:
  - Immediately give notice and notify appropriate service authority/ statutory undertaker.
  - Make arrangements for the work to be made good without delay to the satisfaction of service authority/ statutory undertaker or other owner as appropriate.
  - Any measures taken to deal with an emergency will not affect the extent of the Contractor's liability.
- Marker tapes or protective covers: Replace, if disturbed during site operations, to service authority's/ statutory undertakers recommendations.

### 520 ROADS AND FOOTPATHS

- Duty: Maintain roads and footpaths within and adjacent to the site and keep clear of mud and debris.
- Damage caused by site traffic or otherwise consequent upon the Works: Make good to the satisfaction of the Employer, Local Authority or other owner.

### 530 EXISTING TOPSOIL/ SUBSOIL

- Duty: Prevent over compaction of existing topsoil and subsoil in those areas which may be damaged by construction traffic, parking of vehicles, temporary site accommodation or storage of materials and which will require reinstatement prior to completion of the Works.
- Protection: Before starting work submit proposals for protective measures.

### 540 RETAINED TREES/ SHRUBS/ GRASSED AREAS

- Protection: Preserve and prevent damage, except those not required.
- Replacement: Mature trees and shrubs if uprooted, destroyed, or damaged beyond reasonable chance of survival in their original shape, as a consequence of the Contractor's negligence, must be replaced with those of a similar type and age at the Contractor's expense.

### 550 RETAINED TREES

- Protected area: Unless agreed otherwise do not:
  - Dump spoil or rubbish, excavate or disturb topsoil, park vehicles or plant, store materials or place temporary accommodation within an area which is the larger of the branch spread of the tree or an area with a radius of half the tree's height, measured from the trunk.
  - Sever roots exceeding 25 mm in diameter. If unintentionally severed give notice and seek advice.
  - Change level of ground within an area 3 m beyond branch spread.



555A    WILDLIFE SPECIES AND HABITATS

- Protected habitats and species: Upon discovery immediately advise. Do not proceed until instruction is received.
- Education: Ensure employees and visitors to the site receive suitable instruction and awareness training.

560A    EXISTING FEATURES

- Protection: Prevent damage to existing buildings, fences, gates, walls, roads, paved areas and other site features, which are to remain in position during execution of the Works.

570    EXISTING WORK

- Protection: Prevent damage to existing work, structures or other property during the course of the work.
- Removal: Minimum amount necessary.
- Replacement work: To match existing.

580    BUILDING INTERIORS

- Protection: Prevent damage from exposure to the environment, including weather, flora, fauna, and other causes of material degradation during the course of the work.

625    ADJOINING PROPERTY RESTRICTIONS

- Precautions:
  - Prevent trespass of workpeople and take precautions to prevent damage to adjoining property.
  - Pay all charges.
  - Remove and make good on completion or when directed.
- Damage: Bear cost of repairing damage arising from execution of the Works.

630    EXISTING STRUCTURES

- Duty: Check proposed methods of work for effects on adjacent structures inside and outside the site boundary.
- Supports: During execution of the Works:
  - Provide and maintain all incidental shoring, strutting, needling and other supports as may be necessary to preserve stability of existing structures on the site or adjoining, that may be endangered or affected by the Works.
  - Do not remove until new work is strong enough to support existing structure.
  - Prevent overstressing of completed work when removing supports.
- Adjacent structures: Monitor and immediately report excessive movement.
- Standard: Comply with BS 5975 and BS EN 12812.

640    MATERIALS FOR RECYCLING/ REUSE

- Duty: Sort and prevent damage to stated products or materials, clean off bedding and jointing materials and other contaminants.
- Storage: Stack neatly and protect until required by the Employer or for use in the Works as instructed.

A35

SPECIFIC LIMITATIONS ON METHOD/ SEQUENCE/ TIMING

### A35 SPECIFIC LIMITATIONS ON METHOD/ SEQUENCE/ TIMING

130     METHOD/ SEQUENCE OF WORK

- Specific Limitations: Include the following in the programme:
  - No loud works outside of usual business hours or when the Client is resting or makes reasonable request.

160     USE OR DISPOSAL OF MATERIALS

- Specific limitations: Recycle or reuse where possible.

170     WORKING HOURS

- Specific limitations: As allowed under local authority or as set out in the planning conditions .



A36

FACILITIES/ TEMPORARY WORK/ SERVICES



## A36 FACILITIES/ TEMPORARY WORK/ SERVICES

### GENERALLY

#### 110 SPOIL HEAPS, TEMPORARY WORKS AND SERVICES

- Location: Give notice and details of intended siting.
- Maintenance: Alter, adapt and move as necessary. Remove when no longer required and make good.

### ACCOMMODATION

#### 210A ROOM FOR MEETINGS

- The Contractor shall be responsible for providing such facilities.

#### 230A TEMPORARY ACCOMMODATION

- The Contractor shall be responsible for providing such facilities including sanitary/ablution requirements.

### TEMPORARY WORKS

### SERVICES AND FACILITIES

#### 410 LIGHTING

- Finishing work and inspection: Provide temporary lighting, the intensity and direction of which closely resembles that delivered by the permanent installation.

#### 420A LIGHTING AND POWER

- Supply: Electricity from the Employer's mains may be used for the Works as follows:
  - Metering: All reasonable efforts to make adequate supply will be made. .
  - Point of supply: TBC.
  - Available capacity: 240v.
  - Frequency: 50 Hz.
  - Phase: Single.
  - Current: Alternating.
- Continuity: The Employer will not be responsible for the consequences of failure or restriction in supply. Contractor to be responsible for 3 phase requirements and shall conform to all regulations and H&S conditions

#### 430 WATER

- Supply: The Employer's mains may be used for the Works as follows:
  - Metering: All reasonable efforts to make adequate supply will be made. .
  - Source: TBC.
  - Location of supply point: TBC.
  - Conditions/ Restrictions: Avoid waste and mess..
- Continuity: The Employer will not be responsible for the consequences of failure or restriction in supply.

510A    TEMPERATURE AND HUMIDITY

- Levels required by the Client: Maintain the following:
  - By means of zoning and separation, all reasonable efforts shall be made by the Contractor to maintain an inhabitable environment for the Client.

520A    USE OF PERMANENT HEATING SYSTEM

- Permanent heating installation: May be used for drying out the Works/ services and controlling temperature and humidity levels after weather and air tightness.
- Installation: If used:
  - Take responsibility for operation, maintenance and remedial work.
  - Arrange supervision by and indemnification of the appropriate Subcontractors.
  - Pay costs arising.

530A    BENEFICIAL USE OF INSTALLED SYSTEMS

- The following permanent systems may be used for the Works: Electrical.
- Details: See 420a.

540    METER READINGS

- Charges for service supplies: Where to be apportioned ensure that:
  - Meter readings are taken by relevant authority at possession and/ or completion as appropriate.
  - Copies of readings are supplied to interested parties.

550    THERMOMETERS

- General: Provide on site and maintain in accurate condition a maximum and minimum thermometer for measuring atmospheric shade temperature, in an approved location.



## 2-Rodmell-Ave-Saltdean

TENDER ISSUE - T1

10 June 2015



## Table of Contents

Title		Page
C	Demolition/ Alteration/ Renovation	6
C20	Demolition	8
C90	Alterations - spot items	11
D	Groundwork	12
D20	Excavating and filling	14
E	In situ concrete/Large precast concrete	17
E10	In situ concrete	19
E20	Formwork for in situ concrete	21
E30	Reinforcement for in situ concrete	23
E41	Worked finishes to in situ concrete	25
E60	Precast concrete floors/ roof decks	27
F	Masonry	29
F10	Brick/ block walling	31
F30	Accessories/ sundry items for brick/ block/ stone walling	35
F31	Precast concrete sills/ lintels/ copings/ features	40
G	Structural/Carcassing metal/timber	42
G10	Structural steel framing	44
G12	Isolated structural metal members	47
G20	Carpentry/ timber framing/ first fixing	49
H	Cladding/Covering	54





H60	Plain roof tiling	56
H71	Lead sheet coverings/ flashings	60
J	Waterproofing	64
J30	Liquid applied damp proofing	66
J40	Flexible sheet waterproofing/ damp proofing	68
K	Linings/Sheathing/Dry partitioning	70
K10	Plasterboard dry linings/ partitions/ ceilings	72
K11	Rigid sheet flooring/ sheathing/ decking/ sarking/ linings/ casings	75
L	Windows/Doors/Stairs	79
L10	Windows/ Rooflights/ Screens/ Louvres	81
L20	Doors/ shutters/ hatches	83
L30	Stairs/ ladders/ walkways/ handrails/ balustrades	86
L40	General glazing	88
M	Surface finishes	89
M20	Plastered/ Rendered/ Roughcast coatings	91
M40	Stone/ Concrete/ Quarry/ Ceramic tiling/ Mosaic	95
M50	Rubber/ plastics/ cork/ lino/ carpet tiling/ sheeting	99
M52	Decorative papers/fabrics	101
M60	Painting/ clear finishing	103
N	Furniture/Equipment	106
N13	Sanitary appliances and fittings	108
P	Building fabric sundries	110
P10	Sundry insulation/ proofing work	112
P20	Unframed isolated trims/ skirtings/ sundry items	115



P21	Door/ window ironmongery	118
P30	Trenches, pipeways and pits for buried engineering services	122
P31	Holes, chases, covers and supports for services	124
Q	Paving/Planting/Fencing/Site furniture	127
Q10	Kerbs/ edgings/ channels/ paving accessories	129
Q20	Granular sub-bases to roads/ pavings	132
Q24	Interlocking brick/ block roads/ pavings	135
Q28	Topsoil and soil ameliorants	137
Q40	Fencing	140
R	Disposal systems	141
R10	Rainwater drainage systems	143
R11	Above ground foul drainage systems	145
R12	Below ground drainage systems	148
S	Piped supply systems	152
S90	Hot and cold water supply systems - domestic	154
T	Mechanical heating/Cooling/Refrigeration systems	162
T90	Heating systems - domestic	164
U	Ventilation/Air conditioning systems	169
U90	General ventilation - domestic	171
V	Electrical supply/power/lighting systems	174
V90	Electrical systems - domestic	176
W	Communications/Security/Control systems	182
W90	Communications and security systems - domestic	184



Z	Building fabric reference specification	188
Z10	Purpose made joinery	190
Z11	Purpose made metalwork	192
Z12	Preservative/ fire retardant treatment	194
Z20	Fixings and adhesives	196
Z21	Mortars	198
Z22	Sealants	201



C

Demolition/ Alteration/ Renovation





C20  
Demolition



## C20 Demolition

### 5 SURVEY

- Scope: Before starting deconstruction/ demolition work, examine available information, and carry out a survey of:
  - the structure or structures to be deconstructed/ demolished,
  - the site on which the structure or structures stand, and
  - the surrounding area.
- Report and method statements: Submit, describing:
  - Form, condition and details of the structure or structures, the site and the surrounding area.  
Extent: As drawings 307926-A-110, 111, 112, 113 .
  - Type, location and condition of features of historical, archaeological, geological or ecological importance.
  - Type, location and condition of adjoining or surrounding premises that might be adversely affected by removal of the structure or structures or by noise, vibration and/ or dust generated during deconstruction/ demolition.
  - Identity and location of services above and below ground, including those required for the Contractor's use, and arrangements for their disconnection and removal.
  - Form and location of flammable, toxic or hazardous materials, including lead-based paint, and proposed methods for their removal and disposal.
  - Form and location of materials identified for reuse or recycling, and proposed methods for removal and temporary storage.
  - Proposed programme of work, including sequence and methods of deconstruction/ demolition.
  - Details of specific pre-weakening required.
  - Arrangements for protection of personnel and the general public, including exclusion of unauthorized persons.
  - Arrangements for control of site transport and traffic.
  - Special requirements: Site waste management plan development and proposals and Structural calculations in support of method statements .

### 10 EXTENT OF DECONSTRUCTION/ DEMOLITION

- General: Subject to retention requirements specified elsewhere, deconstruct/ demolish structures down to levels as shown on drawings  
307926-A-110, 111, 112, 113.

### 15 BENCH MARKS

- Unrecorded bench marks and other survey information: Give notice when found. Do not remove marks or destroy the fabric on which they are found.

### 25 LOCATION OF SERVICES

- Services affected by the Works: Locate and mark positions.
- Mains services marking: Arrange with the appropriate authorities for services to be located and marked.

### 30 SERVICES DISCONNECTION ARRANGED BY CONTRACTOR

- Responsibility: Before starting deconstruction/ demolition arrange with the appropriate authorities for disconnection of services owned by those authorities and removal of associated fittings and equipment.

### 32 DISCONNECTION OF DRAINS

- General: Locate, disconnect and seal disused foul and surface water drains.
- Sealing: Permanent, and within the site.



35      LIVE FOUL AND SURFACE WATER DRAINS

- General: Protect drains and fittings still in use. Keep free of debris and ensure normal flow during deconstruction/ demolition work.
- Damage: Make good damage arising from deconstruction/ demolition work. Leave clean and in working order at completion of deconstruction/ demolition work.

50      WORKMANSHIP

- Standard: Demolish structures in accordance with BS 6187.
- Operatives: Appropriately skilled and experienced for the type of work. Holding, or in training to obtain, relevant CITB Certificates of Competence.
- Site staff responsible for supervision and control of work: Experienced in the assessment of risks involved and methods of deconstruction/ demolition to be used.

71      DANGEROUS OPENINGS

- General: Provide guarding at all times, including outside of working hours. Illuminate during hours of darkness.
- Access: Prevent access by unauthorized persons.

76      ASBESTOS-CONTAINING MATERIALS – UNKNOWN OCCURENCES

- Discovery: Give notice immediately of suspected asbestos-containing materials when discovered during deconstruction/ demolition work. Avoid disturbing such materials.
- Removal: Submit statutory risk assessments and details of proposed methods for safe removal.

78      UNFORESEEN HAZARDS

- Discovery: Give notice immediately when hazards, such as unrecorded voids, tanks, chemicals, are discovered during deconstruction/ demolition.
- Removal: Submit details of proposed methods for filling, removal, etc.

85      SITE CONDITION AT COMPLETION

- Debris: Clear away and leave the site tidy on completion.
- Special requirements: Minimise disruption.

86      SITE LEVELS AT COMPLETION

- Levels: Grade the site to follow the levels of adjacent areas.

95      RECYCLED MATERIALS

- Materials arising from deconstruction/ demolition work: Can be recycled or reused elsewhere in the project, subject to compliance with the appropriate specification and in accordance with any site waste management plan.



C90

Alterations - spot items





## C90 Alterations - spot items

### GENERAL

#### 10 DESCRIPTIONS

- Location of spot item descriptions: Drawings 307926-A-110,111,112,113.

#### 20 EMPLOYER'S PROPERTY

- Components and materials arising from alterations that are to remain the property of the Employer: As drawing 307926-A-110,111,112,113.
  - Protection: Maintain until items listed above are removed by the Employer or reused in the Works, or until the end of the Contract.

#### 30 RECYCLED MATERIALS

- Materials arising from alterations: May be recycled or reused elsewhere in the project, subject to compliance with the appropriate specification.
- Evidence of compliance: Submit full details and supporting documentation.



D  
Groundwork



D20  
Excavating and filling



## D20 Excavating and filling

### 4 SITE INVESTIGATION

- Report: Contractor invited to conduct site investigation prior to commencement. Additional site investigation to be undertaken to be discussed if required. .

### 10A PREPARATORY WORK

- Trees, shrubs and hedges to be removed: Cut down, grub up main roots and fill voids.
- Larger trees: Not applicable.
- Clear site of rubbish and vegetation. Grub up large roots.
- Arisings: Remove from site.

### 20 STRIPPING TOPSOIL

- General: Excavate from areas where there will be re-grading or construction work.
  - Depth of removal: 150 mm.

### 23A EXCAVATIONS AND BACKFILLING

- Prior to commencing excavation: Excavate trial pits adjacent to existing foundations to determine extent and formation levels.
  - Allow for inspection of trial pits.
  - Allow time for amendment of details if required.Time period: 5 working days.
- Requirement: No excavation to be left unprotected or unsafe

### 25 INSPECTING FORMATIONS

- Notice: Make advance arrangements for inspection of formations for
  - foundations and filling;
  - service trenches; and
  - roads and pavings .

### 28A STEPS IN FOUNDATION FORMATIONS

- Depth of formation below ground level (minimum): in accordance with structural engineers design and specification.
- Step dimensions: in accordance with structural engineers design and specification.

### 30 OBSTRUCTIONS

- Recorded foundations, beds, drains, etc: Break out and seal off drain ends. Remove contaminated earth.
- Unrecorded foundations, beds, basements, filling, tanks, service pipes, drains, etc: Give notice.





33 NEW FOUNDATIONS CROSSING OLD FOUNDATIONS OR WALLS

- New foundation/ wall:
  - Break out: The old foundation/ wall.  
Length of breaking out: Width of the new foundation/ wall, plus 100 mm on either side of new foundation.  
Depth of breaking out: As necessary to permit the construction of the new foundation to its design cross section.
- New ground supported slabs:
  - Break out: The old foundation/ wall to a depth below the slab formation level of at least 150 mm.  
Backfill: Obtain instructions if depth of fill will be greater than 600 mm, otherwise backfill with compacted hardcore.

35 EXCESS EXCAVATIONS

- Excavation taken wider than required: Backfill as clause 60 .
- Excavation taken deeper than required: Backfill with well graded granular material .

40 SURPLUS EXCAVATED MATERIAL

- Topsoil: Spread and level on site to planting areas .
- Remaining material: Remove from site.

50 HAZARDOUS, AGGRESSIVE OR UNSTABLE MATERIALS

- Generally: Do not import or use fill materials which would, either in themselves or in combination with other material or ground water, give rise to a health hazard, damage to building structures or instability in the filling.

53 WATER

General: Keep excavations free from water until foundations and below ground constructions are completed.

55 PLACING FILL GENERALLY

- Excavations and areas to be filled: Free from loose soil, rubbish and standing water.
- Freezing conditions: Do not use frozen materials or materials containing ice. Do not place fill on frozen surfaces.
- Fill against structures, membranes or buried services: Place and compact in a sequence and manner which will ensure stability and avoid damage.

60 BACKFILLING AROUND FOUNDATIONS

- Under oversite concrete and pavings: Hardcore.
- Under grassed or landscaped areas: Material excavated from the trench, laid and compacted in 300 mm layers.

62 FROST SUSCEPTIBILITY

- General: Except as allowed below, fill must be non frost-susceptible as defined in Highways Agency 'Specification for Highway Works', clause 801.17.
- Frost-susceptible fill: Use only within the external walls of buildings below spaces that will be heated. Protect from frost during construction.



65      HARDCORE

- Fill: Granular material, free from harmful matter and excessive dust or clay, well graded, all pieces less than 75 mm in any direction, and in any one layer only one of the following:
  - Crushed hard rock or quarry waste.
  - Crushed concrete, brick or tile, free from plaster.
  - Gravel or hoggin.
- Filling: Spread and level both backfilling and general filling in layers not exceeding 150 mm. Thoroughly compact each layer.

75      BLINDING TO HARDCORE

- Surfaces to receive sheet overlays or concrete: Blind with:
  - Concrete where shown on drawings; or
  - Sand, fine gravel, or other approved fine material applied to provide a closed smooth surface.
- Permissible deviation on surface level: +0 -25mm.



E

In situ concrete/Large precast concrete



E10

In situ concrete





## E10 In situ concrete

### 15 SPECIFICATION

- Concrete generally: To BS 8500-2.
- Exchange of information: Provide concrete producer with information required by BS 8500-1, clauses 4 and 5.

### 20 DESIGNATED CONCRETE Ground Floor Slab

- Designation: RC32/40.
- Fibres: Not required.
- Aggregates:
  - Size (maximum): 20 mm.
  - Coarse recycled aggregates: Contractor's choice.
  - Additional aggregate requirements: Rounded coarse aggregate.
- Special requirements for cement/ combinations: None.
- Consistence class: Contractor's choice.
- Chloride class: Normal.
- Admixtures: None.
- Additional mix requirements: None.

### 45 PROPERTIES OF FRESH CONCRETE

- Adjustments to suit construction process: Determine with concrete producer. Maintain conformity to the specification.

### 60 PLACING AND COMPACTING

- Surfaces to receive concrete: Clean, with no debris, tying wire clippings, fastenings or free water.
- Timing: Place as soon as practicable after mixing and while sufficiently plastic for full compaction.
- Temperature limitations for concrete: 30°C (maximum) and 5°C (minimum). Do not place against frozen or frost covered surfaces.
- Compaction: Fully compact to full depth to remove entrapped air especially around reinforcement, cast-in accessories, into corners of formwork and at joints. Continue until air bubbles cease to appear on the top surface.
  - Methods of compaction: To suit consistence class and use of concrete.

### 70 CURING AND PROTECTING

- Evaporation from surfaces of concrete: Prevent throughout curing period.
  - Surfaces covered by formwork: Retain formwork in position and, where necessary to satisfy curing period, cover surfaces immediately after striking.
  - Top surfaces: Cover immediately after placing and compacting. Replace cover immediately after any finishing operations.
- Curing periods:
  - Surfaces which in the finished building will be exposed to the elements, and wearing surfaces of floors and pavements: 10 days (minimum).
  - Other structural concrete surfaces: 5 days (minimum).
- Protection: Protect concrete from shock, indentation and physical damage.



E20

Formwork for in situ concrete



## E20 Formwork for in situ concrete

### 70      FORMWORK

- General: Accurately and robustly constructed to produce finished concrete to the required dimensions.
- Formed surfaces: Free from twist and bow with intersections, lines and angles square, plumb and true.
- Joints between forms and completed work: Prevent loss of grout and formation of steps.
- Holes and chases: Form with inserts or box out as required.



E30

Reinforcement for in situ concrete





### E30 Reinforcement for in situ concrete

- 20      RIBBED BAR REINFORCEMENT in accordance with Structural Engineer's design and specification
- Standard: To BS 4449.
    - Strength grade: B500B.
- 40      CONDITION OF REINFORCEMENT
- At time of placing concrete: Free from corrosive pitting, loose mill scale, loose rust and contaminants which may adversely affect the reinforcement, concrete, or bond between the two.
- 55      LAPS IN REINFORCEMENT
- Laps in bar reinforcement (minimum): in accordance with Structural Engineer's design and specification.
  - Laps in fabric reinforcement (minimum): in accordance with Structural Engineer's design and specification.
- 70      FIXING REINFORCEMENT
- Standard: To BS 7973-1 and -2.
  - Installation: Provide adequate support, tie securely and maintain the specified cover.
    - Tying wire: 16 gauge black annealed. Prevent intrusion into the concrete cover.



E41

Worked finishes to in situ concrete



## E41 Worked finishes to in situ concrete

### 10 FINISHING

- Timing: Carry out at optimum times in relation to setting and hardening of concrete.
- Prohibited treatments to surfaces:
  - Wetting to assist surface working.
  - Sprinkling cement.

### 40 TROWELLED FINISH FOR WEARING SURFACES

- Surface on completion: Uniform and smooth, free from trowel marks and blemishes.



E60

Precast concrete floors/ roof decks





## E60 Precast concrete floors/ roof decks

### 10 PRECAST BEAM AND BLOCK First Floor

- Beams: T008.
  - Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
  - Type: As drawing 307926-A-530.
- Infill blocks:
  - Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
  - Type: Autoclaved aerated concrete to BS EN 771-4.
  - Work size: 440 x 215 x 100 mm.
  - Density: in accordance with Structural Engineer's design and specification .
  - Transverse load capacity (minimum): in accordance with Structural Engineer's design and specification.
- Infilling at beam bearings:
  - Type: Beam manufacturer's proprietary infill blocks.
  - Installation: Infill gaps in walling below built in standard flooring blocks.
- Concrete infill: Designated concrete to BS 8500-2.
  - Designation: RC20/25.
  - Aggregate size (maximum): 20 mm.
- Grouting:
  - Mix: 1:6 cement:sharp sand (1:4 if soft sand or in wet weather).
  - Execution: Brush floor clean, wet thoroughly and brush in grout to fill all joints and surface irregularities.
- In situ concrete topping: Not required.
- Other requirements: None.

### 50 DETAILING

- Installation details: Submit location and assembly drawings showing incorporated components and features, trimming for voids, holes for services, and related work by others.
  - Purpose: To allow checking of compatibility with surrounding structure and coordination of services.
- Method statement and risk assessment for installation: Submit.
- Programme: Submit in advance of construction.

### 70 CONCRETE INFILL

- Preparation: Thoroughly clean and wet surfaces of precast units.
- Placing to troughs, slots and other holes: Avoid segregation and compact thoroughly to eliminate voids.

### 80 LATERAL RESTRAINT STRAPS To floors

- Preparation: Floors/ roof decks must tightly abut walls.
- Type: Galvanized steel.
  - Length: To extend minimum 800 mm from inside face of wall.
  - Form: Both ends cranked 100 mm.
- Position: 1.25 m maximum centres to abutting external cavity walls.
- Build in:
  - External cavity walls: One cranked end in tight contact with cavity face of wall inner leaf, the other cranked end grouted into floor/ roof deck joint.



80A      LATERAL RESTRAINT STRAPS To wall plate/roof

- Preparation: Floors/ roof decks must tightly abut walls.
- Type: Galvanized steel.
  - Length: To extend minimum 800 mm from inside face of wall.
  - Form: Both ends cranked 100 mm.
- Position: 1.25 m maximum centres to abutting external cavity walls.
- Build in:
  - External cavity walls: One cranked end in tight contact with cavity face of wall inner leaf, the other cranked end grouted into floor/ roof deck joint.



## F Masonry



F10

Brick/ block walling



## F10 Brick/ block walling

### 5      FACING BRICKWORK TO EXTERNAL WALLS BETWEEN DPC BRICKWORK AND CORBELLING

- Bricks: To BS EN 771-1.
  - Manufacturer: Contractor's choice to match existing.
  - Product reference: Contractor's choice.
  - Recycled content: None permitted.
  - Special shapes: None.
- Mortar: As section Z21.
  - Standard: To BS EN 998-2.
  - Mix: Mortar to BS EN 998-2: Select from:.
- Bond: To match existing.
- Joints: Approved.

### 5A      FACING BRICKWORK BELOW DPC

- Bricks: To BS EN 771-1.
  - Manufacturer: Contractor's choice to match existing in accordance with Structural Engineer's design and specification.
  - Product reference: Contractor's choice.
  - Recycled content: None permitted.
  - Special shapes: None.
- Mortar: As section Z21.
  - Standard: To BS EN 998-2.
  - Mix: Mortar to BS EN 998-2: Select from:.
- Bond: To match existing.
- Joints: Approved.





18      CONCRETE FACING BLOCKWORK ABOVE CAPPING

- Blocks: To BS EN 771-3.
  - Manufacturer: Contractor's choice in accordance with Structural Engineer's design and specification .
  - Product reference: Contractor's choice.
  - Configuration: Group 1.
  - Compressive strength: in accordance with Structural Engineer's design and specification.
  - Category: II.
  - Freeze/ thaw resistance: Frost resistant.
  - Recycled content: Contractor's choice in accordance with Structural Engineer's design and specification.
  - Work sizes (length x width x height): To match existing in accordance with Structural Engineer's design and specification.
  - Tolerance category: D1.
  - Finish/ colour: As manufactured.
  - Special shapes: None.
  - Additional requirements: in accordance with Structural Engineer's design and specification.
- Mortar: As section Z21.
  - Standard: To BS EN 998-2.
  - Mix: 1:1:6 cement:lime:sand.
- Bond: To match existing.
- Joints: Flush.
- Features: None.

45      ENGINEERING BRICKWORK IN MANHOLES

- Bricks: To BS EN 771-1.
  - Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
  - Type: HD.
  - Mean compressive strength: Greater than or equal to 75 N/mm<sup>2</sup>.
  - Category: I.
  - Water absorption: Equal to or less than 4.5%.
  - Freeze/ thaw category: F2.
  - Active soluble salts content category: S2.
  - Additional requirements: None.
- Mortar: As section Z21.
  - Standard: To BS EN 998-2.
  - Mix: 1:0.25:3 cement:lime:sand.
  - Additional requirements: NONE.
- Bond: To match existing.
- Joints: Flush.



51      BASIC WORKMANSHIP

- Bond where not specified: Half lap stretcher.
- Mortar joints: Fill all vertical joints. Lay bricks, solid and cellular blocks on a full bed.
- AAC block thin mortar adhesive and gypsum block adhesive joints: Fill vertical joints. Lay blocks on a full bed.
- Clay block joints:
  - Thin layer mortar: Lay blocks on a full bed.
  - Interlocking perpend: Butted.
- Quoins and advance work: Rack back.
- Locations for equal levelling of cavity wall leaves:
  - Every course containing vertical twist type ties or other rigid ties.
  - Every third tie course for double triangle/ butterfly ties.
  - Courses in which lintels are to be bedded.
- Lift height (maximum) for walling using cement gauged or hydraulic lime mortar: 1.2 m above any other part of work at any time.
- Daily lift height (maximum) for walling using cement gauged or hydraulic lime mortar: 1.5 m for any one leaf.
- Lift height (maximum) for walling using thin joint mortar glue: 1.3 m above any other part of work at any time.

55      FACEWORK

- Commencement of facework: Not less than 150 mm below finished level of adjoining ground or external works level.
- Brick/ block selection: Do not use units with damaged faces or arrises.
- Cut masonry units: Where cut faces or edges are exposed cut with table masonry saw.
- Coursing brickwork and concrete blockwork: Evenly spaced using gauge rods. To produce satisfactory junctions and joints with built-in elements and components.

60      ALTERATIONS/ EXTENSIONS

- Coursing: Line up with existing work.
- Block bonding new walls to existing: Unless agreed otherwise cut pocket requirements as follows:
  - Width: Full thickness of new wall.
  - Depth (minimum): 100 mm.
  - Vertical spacing: As follows:
    - Brick to brick: 4 courses high at 8 course centres.
    - Block to block: Every other course.
    - Pocket joints: Fully filled with mortar.
- New and existing facework in the same plane: Bonded together at every course to achieve continuity of bond and coursing.
- Support of existing work: Fully consolidate joint above inserted lintel or masonry with semidry mortar to support existing structure.

66      FIRE STOPPING

- Avoidance of fire and smoke penetration: Fit tightly between cavity barriers and masonry. Leave no gaps.



F30

Accessories/ sundry items for brick/ block/ stone walling



## F30 Accessories/ sundry items for brick/ block/ stone walling

### 5 CAVITIES

- Concrete fill to base of cavity:
- Concrete generally: To BS EN 206-1 and BS 8500-2.
  - Designated concrete: GEN1 or Standard mix ST2 with high workability.
  - Extent: Maintain 75 mm between top of fill and external ground level and a minimum of 225 mm between top of fill and ground level dpc.
- Cleanliness: Keep cavity faces, ties and dpcs free from mortar and debris.

### 7 PERPEND JOINT WEEP HOLES

- Form: Open clear perpend joint.
- Locations: Through outer leaf, immediately above base of cavity, at cavity trays, stepped dpcs and over openings. 75 mm above top of cavity fill at base of cavity.
- Provision: At not greater than 1000 mm centres and not less than two over openings.

### 8 PERPEND JOINT PLASTICS WEEP HOLES

- Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
- Locations: Through outer leaf, immediately above base of cavity at cavity trays, stepped dpcs and external openings. 75 mm above top of cavity fill at base of cavity.
- Provision: At not greater than 1000 mm centres and not less than two over openings.

### 12 PARTIAL FILL CAVITY INSULATION

- Insulation: Polyisocyanurate (PIR) foam boards to BS EN 13166.
  - Product certification: British Board of Agrément (BBA) Certificate number ???.
- Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
- Recycled content: Not applicable.
- Face size: Polyisocyanurate (PIR) foam boards: Select from: .
- Thickness (nominal): 100 mm.
- Placement: Secure against face of inner leaf.
- Residual cavity: Clear and unobstructed.
- Joints between boards, at closures and penetrations: No gaps and free from mortar and debris.

### 15 AIR BRICKS IN EXTERNAL WALLING

- Standard: To BS 493, class 1.
- Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
- Apertures: Rectangular hole.
- Work sizes: 215 x 65 mm.
- Material/ colour: Clay.
- Placement: Built in with no gaps at joints.



17      VENTILATION DUCTS IN EXTERNAL WALLING

- Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
- Placement: Across cavity, sloping away from inner leaf. Full mortar joints to seal cavity.

18      CAVITY CLOSERS TO OPENINGS

- Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
- Accessories: To include integral insulation.

18A    CAVITY CLOSERS TO OPENINGS

- Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
- Accessories: To include integral dpc.

20      CAVITY WALL TIES FOR ALL CAVITY WALLS

- Standard: To DD 140-2.
  - Type: 2 (Masonry general purpose) .
- Material/ finish: Stainless steel .
- Sizes: 305 mm .

28      FIXING TIES IN MASONRY CAVITY WALLS

- Embedment in mortar beds (minimum): 50 mm.
- Placement: Sloping slightly downwards towards outer leaf without bending. Drip centred in the cavity and pointing downwards.
- Spacing: Staggered in alternate courses.
  - Horizontal centres: 900 mm .
  - Vertical centres: 450 mm .
- Provision of additional ties: Within 225 mm of reveals of unbonded openings and at the vertical reveals of unsupported masonry at not more than 300 mm centres vertically.

39      WALL STARTERS/ CONNECTORS

- Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
- Material/ finish: Galvanized low carbon steel.
- Sizes: 150mm.
- Sealant to external vertical joint: Adshead Ratcliffe & Co Ltd Arbo Seal .
  - Colour: To match adjacent walling.
  - Joint preparation and sealant application: As section Z22.





- 42      MESHWORK JOINT REINFORCEMENT GENERALLY in accordance with Structural Engineer's design and specification
- Standard: To BS EN 845-3.
  - Manufacturer: Contractor's choice.
    - Product reference: Contractor's choice.
  - Type: Expanded metal.
  - Material: Austenitic stainless steel - material/ coating reference R1 to BS EN 845-3.
  - Width: 40-50 mm less in width than wall or leaf.
  - Placement: Lay on an even bed of mortar in a continuous strip with full laps at angles. Keep back 20 mm from face of external work, 12 mm back from face of internal work and finish joint to normal thickness.
    - Lap length (minimum): 150mm.
- 44      DAMP PROOF COURSE - BITUMEN BASED
- Standard: To BS 6398.
    - Class: A.
  - Manufacturer: Contractor's choice.
    - Product reference: Contractor's choice.
- 46      DAMP PROOF COURSE - POLYETHYLENE
- Standard: To BS 6515.
  - Manufacturer: Contractor's choice.
    - Product reference: Contractor's choice.
- 52      SITE FORMED FLEXIBLE SHEET CAVITY TRAYS
- Manufacturer: Contractor's choice.
    - Product reference: Contractor's choice.
- 56      PREFORMED CAVITY TRAYS
- Manufacturer: Contractor's choice.
    - Product references and locations: Contractor's choice.
- 58      PREFORMED DPC/ CAVITY TRAY JUNCTION CLOAKS/ STOP ENDS
- Manufacturer: Contractor's choice.
    - Product references and locations: Contractor's choice.
  - Placement: Seal all laps with dpcs and/ or cavity trays to provide a free draining and watertight installation.
- 62      SITE FORMED DPC/ CAVITY TRAY JUNCTIONS/ STOP ENDS
- Three dimensional changes in shape: Form to provide a free draining and watertight installation.
  - Alternative use of preformed cloaks/ stop ends: Submit proposals.



66      INSTALLATION OF HORIZONTAL DPCS

- Placement: In continuous lengths on full even bed of fresh mortar, with 100 mm laps at joints and full laps at angles.
- Width: At least full width of masonry leaf. Edges of dpc not covered with mortar or projecting into cavity.
- Overlying construction: Immediately cover with full even bed of mortar to receive next masonry course.
- Overall finished joint thickness: As close to normal as practicable.
- Ground level dpcs joint with damp proof membrane: Continuous and effectively sealed.
- Low level dpcs in external walls: Install not less than 150 mm above adjoining finished ground level.
- Sill dpcs form and placement: In one piece and turned up at the back when the sill is in contact with inner leaf.
- Dpcs crossing cavity: Provide support to prevent sagging.

68      SEALING DPCS GENERALLY

- Overlaps and junctions: Seal with Adhesive recommended by dpc manufacturer .

74      INSTALLATION OF VERTICAL DPCS

- Form: In one piece wherever possible.
  - Joints: Upper part overlapping lower not less than 100 mm.
- Dpcs to jambs of openings: Fully lap behind cavity tray/ lintel at head and over horizontal dpc at sill. Project not less than 25 mm into cavity and maintain full contact with frames.
- Fixing of jamb dpcs to back of built in timber frames: Secure using galvanized clout nails or staples.

76      MOVEMENT JOINTS WITH SEALANT

- Joint preparation and sealant application: As section Z22.
- Filler: Closed cell polyethylene foam .
  - Placement: Build in as work proceeds ensuring no projections into cavities and to correct depth to receive sealant system.
- Sealant: ISO 11600-F-20LM .
  - Colour: To match adjoining brickwork .

83      PRECAST CONCRETE LINTELS

- Standard: To BS EN 845-2.
- Manufacturer: Contractor's choice in accordance with Structural Engineer's design and specification .
  - Product reference: Contractor's choice in accordance with Structural Engineer's design and specification .
- Types: As schedule.
- Sizes: As schedule.
- Placement: Bed on mortar used for adjacent work.
  - Bearing length (minimum): 150 mm.

85      PREFABRICATED STEEL LINTELS

- Standard: To BS EN 845-2.
- Manufacturer: Contractor's choice in accordance with Structural Engineer's design and specification .
  - Product reference: Contractor's choice in accordance with Structural Engineer's design and specification .
- Types: As schedule.
- Material/ finish: in accordance with Structural Engineer's design and specification.
- Sizes: As schedule.
- Placement: Bed on mortar used for adjacent work.
  - Bearing length (minimum): 150 mm.



F31

Precast concrete sills/ lintels/ copings/ features



## F31 Precast concrete sills/ lintels/ copings/ features

### 5 DESIGNATED CONCRETE PRECAST LINTELS

- Concrete: Designated to BS 8500-2: in accordance with Structural Engineer's design and specification .
- Reinforcement: in accordance with Structural Engineer's design and specification .
- Cover to reinforcement (nominal): in accordance with Structural Engineer's design and specification .
- Finish to visible faces: To match existing .
- Other requirements: None .

### 10 CONCEALED PRECAST LINTELS

- Concrete: Designated to BS 8500-2: Minimum RC30
  - Aggregate nominal maximum size: 20 mm.
- Configuration:
  - Clear span up to 900 mm:
    - Section: 140 mm deep x width of wall.
    - Bearing: 150 mm at both ends.
    - Reinforcement: One 12 mm carbon steel bar for each 105 mm of wall thickness.
  - Clear span 900 mm to 1800 mm:
    - Section: 215 mm deep x width of wall.
    - Bearing: 225 mm at both ends.
    - Reinforcement: One 16 mm carbon steel bar for each 105 mm of wall thickness.
- Cover to reinforcement (nominal): 20 mm minimum.

### 25 REINFORCEMENT

- Carbon steel reinforcement: As appropriate to BS 4449, BS 4482 and BS 4483.
  - Cutting and bending: To BS 8666.
- Fixing: Accurate and secure.
  - Method: Wire tying, approved steel clips or tack welding if permitted.
  - Concrete cover: Maintain free of tying wire or clips.
  - Cover spacers on visible faces: Not permitted.

### 30 CASTING AND CURING

- Placement of concrete: Thoroughly compact.
- Immature components: Avoid movement, vibration, overloading, physical shock, rapid cooling and thermal shock.
- Protection from weather: Do not expose panels to direct sunlight and drying winds until at least five days after casting.

### 32 CUTTING

- Cutting of precast concrete components: Not permitted.



40      LAYING

- Mortar for bedding and jointing: As section Z21.
  - Type: Site batched and mixed.
  - Mix: 1:0.5:4-4.5 cement:lime:sand.
- Bedding components: On full bed of mortar.
- Bedding one piece sills/ thresholds: Leave clear of mortar except at end bearings and beneath masonry mullions.
  - On completion: Point with mortar to match adjacent work.

45      SUPPORT OF EXISTING WORK OVER NEW LINTELS

- Joint above lintels: Fully fill and compact with semidry mortar.





G

Structural/Carcassing metal/timber



G10  
Structural steel framing



## G10 Structural steel framing

### 10 DESIGN

- Design standard: The structural steelwork has been designed to BS EN 1993-1-1 in accordance with Structural Engineer's design and specification.
- Completion of design: Detail steelwork and design and detail joints to BS EN 1993-1-8 in accordance with Structural Engineer's design and specification.
  - Loading requirements: As specified or otherwise calculable.
- Fixings to foundations/ walls: in accordance with Structural Engineer's design and specification.

### 17 GENERAL STEEL SECTIONS in accordance with Structural Engineer's design and specification

- Standard: To BS EN 10025-2.
- Grade: in accordance with Structural Engineer's design and specification.
- Source: Obtain steel from a source accredited to a national or internationally accepted quality standard.

### 40 BOLT ASSEMBLIES

- Designation: in accordance with Structural Engineer's design and specification .
  - Threading: in accordance with Structural Engineer's design and specification .
- Nuts and washers: To suit grade of bolt, as NSSS, clause 2.3.2 and NSSS CE Marking version, clause 2.4.3.
- Coating applied by manufacturer: in accordance with Structural Engineer's design and specification .

### 45 PROPRIETARY ANCHORS in accordance with Structural Engineer's design and specification

- Manufacturer: in accordance with Structural Engineer's design and specification .
  - Product reference: in accordance with Structural Engineer's design and specification .
- Anchor type: in accordance with Structural Engineer's design and specification .
- Material: in accordance with Structural Engineer's design and specification .

### 50 COLUMN BASES

- Levels: Adjust using steel shims or folding wedges no larger than necessary, positioned symmetrically around perimeter of base plate. Do not use a single central pack.
- Accuracy of erection: Check, and correct errors before filling and bedding beneath bases and carrying out other adjacent work.

### 55 MORTAR FILLING/ BEDDING OF COLUMN BASES

- Bolt pockets: Completely filled with neat cement slurry.
- Spaces beneath base plates: Completely filled with 1:1 cement:fine aggregate mortar, just fluid enough to pour, tamped well as filling proceeds. Provide temporary shuttering as necessary.
- Cement: Portland cement BS EN 197-1 - CEM I 42.5 or 52.5.
- Fine aggregate: To BS EN 12620, grade 0/4 or 0/2 (MP).

### 60 GALVANIZING

- Use/ location: in accordance with Structural Engineer's design and specification .
- Preparation: Chemical cleaning.
- Galvanizing: To BS EN ISO 1461 .
  - Minimum mean coating thickness: 85 micrometres.



65      SHOP PRIMING FOR External columns

- Use/ location: Columns to balcony.
- Shop preparation: Blast cleaning to BS EN ISO 8501-1, preparation grade Sa 2½.
- Primer: Two pack epoxi.
  - Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
  - Dry film thickness: M60.
- Special requirements: Preparation of welds in exposed steelwork to BS EN ISO 8501-3, grade P3.



G12

Isolated structural metal members





## G12 Isolated structural metal members

### 10 STEEL SECTIONS AND PLATE

- Section properties and dimensions: To BS 4-1, BS EN 10055, BS EN 10056 or BS EN 10210, as appropriate.
  - Steel: To BS EN 10025-2 or BS EN 10210-1, as appropriate.
    - Grade: in accordance with Structural Engineer's design and specification.
  - Surface condition: Free from heavy pitting and rust, burrs, sharp edges and flame cutting dross.
- Cuts and holes: Accurate and neat.
- Welding: Metal arc method to BS EN 1011-2.
  - Welded joints: Fully fused, with mechanical properties not less than those of the parent metal.
  - Site welding: Obtain approval.

### 20 SHOP PRIMING GENERALLY

- Preparation: To BS EN ISO 12944-4. Remove fins, burrs, sharp edges and weld spatter, clean out crevices
  - Surface finish: Manually cleaned to BS EN ISO 8501-1, grade St 2.
  - Prepared surfaces: Keep in a dry atmosphere and apply first coating without delay.
- Priming:
  - Primer: One coat zinc phosphate modified alkyd, minimum dry film thickness 40 micrometres.
  - Application: To BS EN ISO 12944-7.

### 35 BOLT ASSEMBLIES

- Designation: in accordance with Structural Engineer's design and specification .
- Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
- Size: in accordance with Structural Engineer's design and specification .
- Nuts and washers: Material grade and finish to suit bolts.
- Coating applied by manufacturer: Zinc plated.

### 40 INSTALLATION

- Accuracy: Members positioned true to line and level using, if necessary, steel packs of sufficient area to allow full transfer of loads to bearing surfaces.
- Fixing: Use washers under bolt heads and nuts.
  - Tapered washers: Provide under bolt heads and nuts bearing on sloping surfaces. Match taper to slope angle and align correctly.



G20

Carpentry/ timber framing/ first fixing



## G20 Carpentry/ timber framing/ first fixing

### 2      TIMBER PROCUREMENT

- Timber (including timber for wood based products): Obtained from well managed forests/ plantations in accordance with:
  - The laws governing forest management in the producer country or countries.
  - International agreements such as the Convention on International Trade in Endangered Species of wild fauna and flora (CITES).
- Documentation: Provide either:
  - Documentary evidence (which has been or can be independently verified) regarding the provenance of all timber supplied, or
  - Evidence that suppliers have adopted and are implementing a formal environmental purchasing policy for timber and wood based products.

### 5      STRUCTURAL SOFTWOOD FOR STRUCTURAL USE GENERALLY

- Grading standard: To BS 4978, BS EN 14081-1, or other national equivalent and so marked.
  - Timber of a target thickness less than 100 mm and not specified for wet exposure: Graded at an average moisture content not exceeding 20% with no reading being in excess of 24% and clearly marked as 'DRY' or 'KD' (kiln dried).
  - Timber graded undried (green) and specified for installation at higher moisture contents: Clearly marked as 'WET' or 'GRN'.
- Strength class to BS EN 338: C16.
- Treatment: Organic solvent impregnation to NBS section Z12 and Wood Protection Association Commodity Specification C8, Service life: 40 years.

### 10     UNGRADED SOFTWOOD FOR INTERNAL NONSTRUCTURAL USE

- Quality of timber: Free from decay, insect attack (except pinhole borers) and with no knots wider than half the width of the section.
- Surface finish: Regularized.
- Treatment: Organic solvent impregnation to NBS section Z12 and Wood Protection Association Commodity Specification C5, Service life: 40 years.

### 12     WOOD TRIM FOR EAVES FASCIA

- Species: Contractor's choice.
- Standard: To BS 1186-3.
  - Class: 2.
- Treatment: Organic solvent impregnation to NBS section Z12 and Wood Protection Association Commodity Specification C5, Service life: 40 years.
- Fixing: Two 50 mm lost head nails to each support.



15      PLYWOOD FOR GUTTER BOARDS

- Standard: To an approved national standard.
- Service class to BS EN 1995-1-1: Class 3.
- Nominal thickness: 12 mm.
- Appearance class to BS EN 635: III.
- Bonding quality to BS EN 314-2: Class 3.
- Finish: Unsanded.
- Treatment: Organic solvent impregnation to NBS section Z12 and Wood Protection Association Commodity Specification C8, Service life: 40 years..

20      TRUSSED RAFTERS

- Design and fabrication standard: To BS EN 14250.
- Manufacturer: A firm currently registered under a third party quality assurance scheme.
- Truss system: Agrément certified.
- Ancillary components to be supplied by fabricator: Double trusses.
- Treatment: Organic solvent type as section Z12 and Wood Protection Association Commodity Specification C8 .
- Handling and storage: Keep trussed rafters vertical.

30      SELECTION AND USE OF TIMBER

- Timber members damaged, crushed or split beyond the limits permitted by their grading: Do not use.

32      NOTCHES, HOLES AND JOINTS IN TIMBER

- Notches and holes: Position in relation to knots or other defects such that the strength of members will not be reduced.
- Scarf joints, finger joints and splice plates: Do not use without approval.

40      MOISTURE CONTENT

- Moisture content of wood and wood based products at time of installation: Not more than:
  - Covered in generally unheated spaces: 24%.
  - Covered in generally heated spaces: 20%.
  - Internal in continuously heated spaces: 20%.

41      BOLT/ SCREW ASSEMBLIES TO TRUSSES GENERALLY.

- Designation: Hexagon head screws to BS EN ISO 4018, property class 4.6.
- Size: M10.  
Coating applied by manufacturer: Galvanized.
- Nuts and washers: Material grade and finish to suit bolts
- Washer dimensions: Diameter/ side length of washers in contact with timber faces to be minimum 3 times bolt diameter, with a thickness not less than 0.25 times bolt diameter.

43      BOLTED JOINTS

- Bolt spacings (minimum): To BS EN 1995-1-1, section 8.5.
- Holes for bolts: Located accurately and drilled to diameters as close as practical to the nominal bolt diameter and not more than 2 mm larger.
- Washers: Placed under bolt heads and nuts that would otherwise bear directly on timber. Use spring washers in locations which will be hidden or inaccessible.
- Bolt tightening: So that washers just bite the surface of the timber. Ensure that at least one complete thread protrudes from the nut.
  - Checking: At agreed regular intervals. Tighten as necessary.



45      FRAMING ANCHORS

- Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
- Material/ finish: Galvanized low carbon steel.
- Fasteners: Galvanized or sherardized square twist nails.
  - Size: Not less than size recommended by anchor manufacturer.
- Fixing: Secure using not less than the number of nails recommended by anchor manufacturer.

50      ADDITIONAL SUPPORTS

- Provision: Position and fix additional studs, noggings and/ or battens to support edges of sheet materials, and wall/ floor/ ceiling mounted appliances, fixtures, etc. shown on drawings.
- Material properties: Timber to be of adequate size and have the same treatment as adjacent timber supports.

55      JOISTS GENERALLY

- Centres: Equal, and not exceeding designed spacing.
- Bowed joists: Installed with positive camber.
- End joists: Positioned about 50 mm from masonry walls.

60      JOISTS ON HANGERS

- Hangers: Bedded directly on and hard against supporting construction. Do not use packs or bed on mortar.
- Joists: Cut to leave not more than 6 mm gap at each end. Rebated to lie flush with underside of hangers.
- Fixing to hangers: A nail in every hole.

65      JOIST HANGERS DOMESTIC USE.

- Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
- Material/ finish: Hot dip galvanized steel plate.
- Size: To suit joist, design load and crushing strength of supporting construction.

70      TRIMMING OPENINGS

- Trimmers and trimming joists: Not less than 25 mm wider than general joists.

75      TRUSSED RAFTER INSTALLATION

- Erection: To Trussed Rafter Association site installation guide.
- Trusses generally: Do not modify without approval.
- Damaged trusses: Do not use.
- Fixing: With truss clips. Bottom chords of standard trusses and rafters of raised tie trusses bearing fully on wall plates.
- Bottom chords of standard trusses: Do not fix to internal walls until roofing is complete and cisterns are installed and filled.

77      TRUSS CLIPS

- Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
- Material/ finish: Galvanised steel.
- Fasteners: 32 x 3.5 mm galvanized or sherardized square twisted nails in every hole.





80 PERMANENT BRACING OF TRUSSED RAFTERS

- Bracing and binders:
  - Size: to match truss size.
  - Method of fixing: To every rafter, strut or tie with not less than two fasteners.  
Fasteners: 75 x 3.35 mm galvanized round wire nails or in accordance with Manufacturer's design and instructions.
- Lap joints: Extended over and nailed to at least two truss members.

85 VERTICAL RESTRAINT STRAPS

- Type: Flat.
- Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
- Material/ finish: Galvanized steel.
- Size:
  - Cross section: Not less than 30 x 2.5 mm.
  - Length: Overall length 1500 mm; bent at 100 mm and 200 mm; twisted starting at 350 mm. .
- Centres: Not more than 1.2 m.
- Fixing:
  - To timber members with not less than four.
  - To masonry with not less than four screws evenly spaced.
  - At least one screw to be located within 150 mm of the bottom end of each strap.

90 LATERAL RESTRAINT STRAPS

- Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
- Material/ finish: Galvanized steel.
- Size: Not less than 30 x 5 mm cross section, 150 mm cranked end and 1200 mm long.
- Fixing: To top of joists/ rafters/ ties at not more than 1.2 m centres and as shown on drawings.
  - Ensure that cranked end is in tight contact with cavity face of wall inner leaf and is not pointing upwards.
- Straps spanning joists/ rafter/ ties running parallel to wall: Fix noggings and packs tightly beneath straps.
  - Size of noggings and packs: Not less than three quarters of joist/ rafters/ tie depth and not less than 38 mm thick.
  - Notching: Notch joists so that straps fit flush with surface. Do not notch rafters/ ties.
- Fasteners: Not less than four 50 mm x 8 gauge sherardized countersunk screws per strap, evenly spread.

98 EAVES SOFFIT VENTILATION

- Soffit boards: Fixed to leave a continuous ventilation opening not less than 25 mm wide for full length of eaves.
- Insect mesh: 3-4 mm mesh screen fixed across the opening to prevent large insect entry.



99      FASCIAS/ BARGES/ SOFFITS - PVC-U to match existing

- Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
- Material: Cellular PVC-U core with impact modified PVC-U skin and containing no lead or cadmium.
- Finish: Smooth satin.
- Colour: White.
- Nominal depth: Fascias ??? mm, Soffits ??? mm.
- Edge profile: to match existing.
- Accessories/ Other requirements: Joint trims.
- Support: 50 x 38 mm preservative treated softwood at maximum 400 mm centres.
  - Provide additional support at joints.
- Fixings: 35 mm screws with colour matched heads.
- Installer: A contractor approved by the system manufacturer.



## H Cladding/Covering



H60  
Plain roof tiling

## H60 Plain roof tiling

### 5 ROOF TILING WITH COUNTERBATTENS GENERALLY

- Substrate: Trussed rafters at 450 mm centres or as specified by truss manufacturer .
- Pitch: 44 or to match existing .
- Underlay: Contractor's choice .
  - Recycled content: None permitted .
  - Head-lap (minimum): 100 mm.
- Counterbattens:
  - Size: 38 x 25 mm .
  - Fixing: 65 x 3.35 mm galvanized annular ring shank nails .
- Battens:
  - Size: 38 x 25 mm .
  - Fixing: 65 x 3.35 mm galvanized annular ring shank nails .
- Tiles: Clay to BS EN 1304 to match existing .
  - Manufacturer: Contractor's choice .
  - Product reference: Contractor's choice .
  - Pattern: to match existing .
  - Colour: to match existing .
  - Size: to match existing .
  - Recycled content: Not applicable .
  - Head-lap (minimum): 65 mm.
  - Fixing:
    - Fixing of local areas: Two nails per tile in every course .
    - Fixing of general areas: Two nails per tile in every course .

### 10 VERTICAL TILING GENERALLY

- Substrate: Vertical timber cross battens at 450 mm centres over horizontal battens at tile coursing .
- Underlay: Contractor's choice .
  - Recycled content: None permitted.
  - Head-lap (minimum): 100 mm.
- Battens:
  - Size: 38 x 25 mm.
  - Fixing: 65 x 3.35 mm galvanized annular ring shank nails.
- Tiles: Clay to BS EN 1304 to match existing .
  - Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
  - Pattern: to match existing.
  - Colour: to match existing.
  - Size: to match existing.
  - Recycled content: None permitted.
  - Head-lap (minimum): to match existing.
  - Fixing: Two nails each tile.





20A REMOVE EXISTING TILING

- General: Carefully remove tiles, battens, underlay, etc. with minimum disturbance of adjacent retained tiling.
- Undamaged tiles: Set aside for reuse to match existing remove some of the existing tiles from the roof, mix and match with new to improve blending.

25 UNDERLAY

- Laying: Maintain consistent tautness.
- Vertical laps (minimum): 100 mm wide, coinciding with supports.
- Fixing: Galvanized steel, copper or aluminium 20 x 3 mm extra large clout head nails.
- Eaves: Where exposed, underlay must be BS 747, Annex B, type 5U, or equivalent UV durable type.
- Penetrations: Use proprietary underlay seals or cut underlay neatly.

30 BATTENS/ COUNTERBATTENS

- Timber: Sawn softwood.
  - Standard: BS 5534.
  - Moisture content at time of fixing and covering (maximum): 22%.
- Preservative treatment: As section Z12 and Wood Protection Association Commodity Specification C8.
  - Type: Contractor's choice.

32 BATTEN FIXING

- Batten length (minimum): Sufficient to span over three supports.
- Joints in length: Butt centrally on supports. Joints must not occur more than once in any group of four battens on one support.
- Additional battens: Provide where unsupported laps in underlay occur between battens.

35 TILE FIXING

- General: Fix tiling and accessories to make the whole sound and weathertight at earliest opportunity.
- Exposed fittings and accessories: To match tile colour and finish.
- Setting out: To true lines and regular appearance. Lay tiles to a half lap bond with joints slightly open. Align tails.
- Cut tiles: Cut only where necessary, to give straight, clean edges.
- Ends of courses: Use tile and a half tiles to maintain bond and to ensure that cut tiles are as large as possible.
- Top and bottom courses: Use eaves/ tops tiles to maintain gauge.
- Perimeter tiles: Twice nail end tile in every course. Twice nail or clip two courses of tiles at eaves and top edges.
- Fixings: Nails/ clips as recommended by tile manufacturer.

37 LOCAL AND GENERAL FIXING AREAS

- Definitions:
  - Local areas: Bands of tiling around all edges or obstructions of each plane of the roof. Calculate extent of each band in accordance with BS 5534, section 5.
  - General areas: Remaining areas of roof tiling.

40 MORTAR BEDDING/ POINTING

- Mortar: As section Z21, 1:3 cement:sand, with plasticizing admixtures permitted.
  - Bond strength: To BS 5534.
- Weather: Do not use in wet or frosty conditions or when imminent.
- Appearance: Finish neatly and remove residue.



47      EAVES

- Ventilation components:
  - Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
- Underlay support: 12 mm plywood, as section G20 .
  - Continuous to prevent water retaining troughs.
- Gutter: Dress underlay or underlay support tray to form drip into gutter.
- Undercourse and first course tiles: Fix with tails projecting 50 mm over gutter or to centre of gutter.

57      MORTAR BEDDED AND MECHANICALLY FIXED HIPS

- Underlay: Lay courses over hip. Overlap (minimum) 150 mm.
- Hip tile fixing battens: in accordance with manufacture design and specification.
- Roof tiles: Cut and fix closely at hip.
- Hip irons: Galvanized steel to BS 5534, clause 4.16.1. Fix to hip rafter or hip batten with galvanized steel screws.
- Hip tiles:
  - Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
  - Bedding: On mortar, continuous to edges and solid to joints.
  - Fixing: Secure to hip tile fixing battens with self-sealing non-ferrous through fixings.
  - Bottom hip tiles: Shape neatly to align with corner of eaves and fill ends with mortar and slips of tile finished flush.

59      BONNET HIPS

- Underlay: Lay courses over hip. Overlap (minimum) 150 mm.
- Bonnet hip tiles:
  - Product reference: Contractor's choice.
  - Bedding: In mortar, neatly struck back about 13 mm. Course in with roof tiling.
  - Fixing: Secure with nails.
  - Bottom hip tiles: Fill ends with mortar and tile slips finished flush.

67      CURVED PLAIN TILE VALLEYS

- Underlay: Lay strips not less than 600 mm wide centred on valleys. Overlap with general roof underlay.
- Curved valley tiles:
  - Product reference: Contractor's choice to match existing.
- Roof tiles: Cut adjacent tiles to fit neatly.

77      MORTAR BEDDED AND MECHANICALLY FIXED RIDGES

- Underlay: Lay courses over ridge. Overlap (minimum) 100 mm.
- Ridge tile fixing battens: in accordance with manufactureres design and specification.
- Ridge tiles:
  - Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice to match existing.
  - Bedding: On mortar, continuous to edges and solid to joints.
  - Fixing: Secure to ridge tile fixing battens with self-sealing non-ferrous fixings.
  - Gable end ridge tiles: Fill ends with mortar and slips of tiles finished flush.
- Ridge terminals: To match existing.



H71

Lead sheet coverings/ flashings



## H71 Lead sheet coverings/ flashings

### 2 ROOFING

- Underlay: Contractor's choice.
- Lead:
  - Thickness: 2.00 or 2.24 mm (Code 5).
- Joints in direction of fall: Welled seams.
  - Spacing: 600 mm.
- Cross joints: 150 mm laps with copper clips at bay centres.
  - Spacing: Determined by Contractor.
- Intermediate fixings: Brass cup and screw with lead cap.
- Accessories: Not required.

### 20 WEATHERING TO SHALLOW BAY WINDOWS

- Underlay: Waterproof building paper.
- Lead:
  - Thickness: 2.00 or 2.24 mm (Code 5).
- Joints: Welled.
  - Spacing: 300 mm.
- Edge details: Welled drip at front, upstand at rear with tuck in.
- Fixing: Lead clips at 500 centres.

### 27 SOAKERS FOR MITRED HIPPS TO SLATE/ PLAIN TILE ROOFS

- Lead:
  - Thickness: 1.25 or 1.32 mm (Code 3).
- Dimensions:
  - Length: Slate/ tile gauge + lap + 25 mm.
  - Underlap: Not less than 150 mm.

### 35 COVER FLASHINGS

- Lead:
  - Thickness: 1.75 or 1.80 mm (Code 4).
- Dimensions:
  - Lengths: Not more than 1500 mm.
  - End to end joints: Laps of not less than 100 mm.
  - Cover: Overlap to upstand not less than 75 mm.
- Fixing:
  - Top edge: Lead wedges into bed joint.
  - Bottom edge: Clips.

Material: Lead.  
Spacing: 300.



45      STEP AND COVER FLASHINGS GENERALLY

- Lead:
  - Thickness: 1.75 or 1.80 mm (Code 4).
- Dimensions:
  - Lengths: Not more than 1500 mm.
  - End to end joints: Laps not less than 100 mm.
  - Upstand: Not less than 85 mm.
  - Cover to roof: Not less than 150 mm.
- Fixing:
  - Top edge: Lead wedges at every course.
  - Bottom edge: Clips.

Material: Lead.  
Spacing: 300.

50      FLASHINGS GENERALLY

- Lead:
  - Thickness: 2.00 or 2.24 mm (Code 5).
- Dimensions:
  - Lengths: Not more than 1500 mm.
- Fixing: Nail top edge at 150 mm centres and welt edge. Clip bottom edge at laps and 500 mm centres. .

60      MATERIALS AND WORKMANSHIP GENERALLY

- Lead production method:
  - Rolled, to BS EN 12588.
  - Machine cast: BBA certified.
- Identification: Colour marked for thickness/ code, weight and type.
- Workmanship standard: To BS 6915 and latest editions of 'Rolled lead sheet. The complete manual' published by the Lead Sheet Association.
- Fabrication and fixing: To provide a secure, free draining and weathertight installation.
- Marking out: Do not use scribers or other sharp instruments to mark out lead without approval.
- Solder: Use only where specified.
- Finished leadwork: Fully supported, adequately fixed to resist wind uplift but also able to accommodate thermal movement without distortion or stress.
- Patination oil: Apply smear coating to all visible lead, evenly in one direction and in dry conditions.

75      TIMBER FOR USE WITH LEADWORK

- Quality: Planed, free from wane, pitch pockets, decay and insect attack (ambrosia beetle excepted).
- Moisture content: Not more than 22% at time of fixing and covering. Give notice if greater than 16%.
- Preservative treatment: Organic solvent as section Z12 and Wood Protection Association Commodity Specification C8.

76      UNDERLAY

- Handling: Prevent tears and punctures.
- Laying: Butt or overlap jointed onto a dry substrate.
  - Fixing edges: With copper or stainless steel staples or clout nails.
  - Do not lay over roof edges.
  - Turn up at abutments.
- Wood core rolls: Fixed over underlay.
- Protection: Keep dry and cover with lead at the earliest opportunity.





78      FIXING LEAD SHEET

- Top edge: Secured with two rows of fixings, 25 and 50 mm from edge.
- Fixings:
  - Nails to timber substrates: Copper clout nails to BS1202-2 , or stainless steel (austenitic) clout nails to BS 1202-1.  
Shank type: Annular ringed, helical threaded or serrated.  
Length: Not less than 20 mm or equal to substrate thickness.
  - Screws to concrete or masonry substrates: Brass or stainless steel to BS 1210.  
Diameter: Not less than 3.35 mm.  
Length: Not less than 19 mm.  
Washers and plastics plugs: Compatible with screws.

80      CLIPS

- Material:
  - Lead clips: Cut from sheets of the same thickness/ code as sheet being secured.
  - Copper clips: Cut from 0.70 mm thick sheet to BS EN 1172, temper R220 (soft) or R240 (half hard) depending on position, dipped in solder if exposed to view.
  - Stainless steel: Cut from 0.38 mm sheet to BS EN 10088, grade 1.4301(304), terne coated if exposed to view.
- Dimensions:
  - Width: 50 mm where not continuous.
  - Length: To suit detail.
- Fixing clips: Secure each to substrate with either two screw or three nail fixings not more than 50 mm from edge of lead sheet. Use additional fixings where lead downstands exceed 75 mm.
- Fixing lead sheet: Welt clips around edges and turn over 25 mm.

83      WEDGE FIXING INTO JOINTS/ CHASES

- Joint/ chase: Rake out to a depth of not less than 25 mm.
- Lead: Dress into joint/ chase.
  - Fixing: Lead wedges at not more than 450 mm centres, at every change of direction and with at least two for each piece of lead.
- Sealant: Contractor's choice.
  - Application: As section Z22.

85      WEDGE FIXING INTO DAMP PROOF COURSE JOINTS

- Joint: Rake/ cut out under damp proof course to a depth of not less than 25 mm.
- Lead: Dress into joint.
  - Fixing: Lead wedges at not more than 450 mm centres, at every change of direction and with at least two for each piece of lead.
- Sealant: Contractor's choice.
  - Application: As section Z22.

94      DRIPS WITH SPLASH LAPS

- Underlap: Dress into rebate along top edge of drip.
  - Fixing: One row of nails on centre line of rebate.
- Overlap: Dress over drip and form a 40 mm splash lap.



98      WELTED JOINTS

- Joint allowance: 50 mm overlap, 25 mm underlap.
- Copper or stainless steel clips: Fix to substrate at 450 mm centres.
- Overlap: Welt around underlap and clips and lightly dress down.

230      VALLEY GUTTER LINING TO TILE ROOFS:

Underlay: Not required

Type of lead: Rolled to BS EN 12588

- Thickness: Code 5 2.00 or 2.24 mm

Pretreatment: [Not required

Laying: Over and beyond tilting fillets.

Lengths: Not more than 1500mm

- Cross joints: Lapped not less than 150mm

Fixing: Welt edges. Nail top edge of each sheet. Dress bottom end neatly into eaves gutter.



J  
Waterproofing



J30

Liquid applied damp proofing



## J30 Liquid applied damp proofing

### 10 COLD APPLIED DAMP PROOFING GENERALLY

- Substrate: Existing brickwork and concrete.
- Primer: As coating manufacturer's recommendations.
- Coating: Bituminous.
  - Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
  - Application: As coating manufacturer's recommendations.
- Reinforcement: Not required.
- Blinding: As coating manufacturer's recommendations.

### 50 WORKMANSHIP

- Substrates generally: Smooth, even textured, clean, dry and frost free.
- Curing period for concrete substrates (minimum): 7 days.
- Moisture content and stability of substrate: Must not impair integrity of finished tanking/ damp proofing.
- Preliminary work: Complete.
- Adjacent surfaces exposed to view in finished work: Protect.
- Primer application: Uniform, continuous coverage.
- Coatings:
  - Apply in dry atmospheric conditions when primer is tacky.
  - Uniform, continuous coverage. Do not allow to pool in hollows.
  - Firmly adhered to substrate and free from imperfections.
  - Prevent damage to finished coating.
- Penetrations: Impervious.
- Final covering: Apply as soon as possible after coating has hardened.

### 60 JUNCTIONS WITH DPCS

- Dpcs: Clean, all edges fully exposed.
- Application: Fully coat dpc and overlap adjacent surfaces by (minimum) 75 mm .

### 70 BLINDING

- Coatings: Blind whilst tacky .
- Surplus material: Remove when coatings are completely dry.

### 80 PROTECTION OF COATINGS

- Coated surface: Clean and free from contaminants.
- Board manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
  - Thickness: 8 mm.
- Placement: Bond protection board to coating with double-sided tape .
  - Edges: Butt jointed and taped.
  - Perimeter treatment: Not required.
- Contact with coating: Secure and continuous.

### 90 BACKFILLING TO EXTERNAL COATINGS

- Timing: Carry out as soon as possible after tanking and protection are complete.





J40

Flexible sheet waterproofing/ damp proofing



## J40 Flexible sheet waterproofing/ damp proofing

### 10 SOFT BLINDING TO HARDCORE BEDS

- Material: Soft sand.
  - Thickness (minimum): 50 mm.
  - Finish on completion: Smooth, consolidated bed free of sharp projections.

### 20 LOOSE LAID POLYETHYLENE DAMP PROOFING

- Substrate: As drawing 520.
- Membrane:
  - Manufacturer: Contractor's choice .
  - Product reference: Contractor's choice .
- Thickness/ Gauge: 300 micrometres (1200 gauge).
- Recycled content: Contractor's choice.
- Joints:
  - Surfaces to be joined: Clean and dry beyond full width of joint.
  - Laps (minimum): End and side, 150 mm.
  - Sealing: Continuous mastic strip between overlaps, edge of top sheet sealed with jointing tape.

### 50 WORKMANSHIP GENERALLY

- Condition of substrate:
  - Clean and even textured, free from voids and sharp protrusions.
  - Moisture content: Compatible with damp proofing/ tanking.
- Air and surface temperature: Do not apply sheets if below minimum recommended by membrane manufacturer.
- Condition of membrane at completion:
  - Neat, smooth and fully supported, dressed well into abutments and around intrusions.
  - Completely impervious and continuous.
  - Undamaged. Prevent puncturing during following work.
- Permanent overlying construction: Cover membrane as soon as possible.

### 60 JUNCTIONS WITH PROJECTING DPCS/ CAVITY TRAYS

- Adjoining surfaces: Clean and dry.
- Dpcs/ cavity trays: Lap and fully bond/ seal with sheeting.
  - Laps (minimum): 150 mm.
  - Bonding/ Sealing: Bonding compound.

### 65 JUNCTIONS WITH FLUSH DPCS/ CAVITY TRAYS

- Adjoining surfaces: Clean and dry.
- Dpcs/ Cavity trays:
  - Expose edge where concealed.
  - Lap and fully bond/ seal sheeting to wall.
  - Dressing of sheeting beyond dpc/ cavity tray (minimum): 50 mm.
  - Bonding/ Sealing: Bonding compound.



70      PROTECTION BOARDS FOR DAMP PROOFING/ TANKING

- Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
- Thickness: 12 mm.
- Application:
  - Membrane surface: Clean and free from contaminants.
  - Bonding: Not required.
  - Board joints: Butted.
- Board contact with membrane: Secure and continuous.
- Backfilling: Carry out when tanking, loading and protection are complete.



K

Linings/Sheathing/Dry partitioning



K10

Plasterboard dry linings/ partitions/ ceilings

## K10 Plasterboard dry linings/ partitions/ ceilings

### 15 LINING ON TIMBER STUD PARTITIONS TO BATHROOMS

- Substrate: Battens at 400 mm centres.
- Linings: Two layers 15 mm plasterboard each side of stud.
  - Recycled content: Submit proposals.
- Fixing: Screws at 300 mm centres.
- Finishing: Skim coat plaster.
  - Primer/ Sealer: As recommended by board manufacturer for improved moisture resistance.
  - Accessories: Metal beads/ stops recommended by board manufacturer.

### 15A LINING ON TIMBER STUD PARTITIONS GENERALLY

- Substrate: Studs at 400 mm centres.
- Linings: Two layers 15 mm plasterboard each side of stud.
  - Recycled content: Submit proposals.
- Fixing: Screws at 300 mm centres.
- Finishing: Skim coat plaster.
  - Primer/ Sealer: As recommended by board manufacturer for a paint finish.
  - Accessories: Metal beads/ stops recommended by board manufacturer.

### 15B LINING ON TIMBER STUD EXTERNAL WALLS

- Substrate: Battens at 400 mm centres.
- Linings: Two layers 15 mm plasterboard internally.
  - Recycled content: Not applicable.
- Fixing: Screws at 300 mm centres.
- Finishing: Skim coat plaster.
  - Primer/ Sealer: As recommended by board manufacturer for improved moisture resistance.
  - Accessories: Metal beads/ stops recommended by board manufacturer.

### 65 DRY LINING GENERALLY

- General: Use fixing, jointing, sealing and finishing materials, components and installation methods recommended by board manufacturer.
- Plasterboards: To BS EN 520.
- Cutting plasterboards: Neatly and accurately without damaging core or tearing paper facing. Minimize cut edges.
- Two layer boarding: Stagger joints between layers.
- Finishing: Neatly to give flush, smooth, flat surfaces free from bowing and abrupt changes of level.

### 67 SKIM COAT PLASTER FINISH

- Plaster type: As recommended by board manufacturer.
  - Thickness: 2-3 mm.
- Joints: Fill and tape except where coincident with metal beads.
- Finish: Tight, matt, smooth surface with no hollows, abrupt changes of level or trowel marks.





69      INSTALLING BEADS/ STOPS

- Cutting: Neatly using mitres at return angles.
- Fixing: Securely using longest possible lengths, plumb, square and true to line and level, ensuring full contact of wings with substrate.
- Finishing: After joint compounds/ plasters have been applied, remove surplus material while still wet from surfaces of beads exposed to view.

70      ADDITIONAL SUPPORTS

- Framing: Accurately position and securely fix to give full support to:
  - Partition heads running parallel with, but offset from main structural supports.
  - Fixtures, fittings and services.
  - Board edges and lining perimeters.

75      NEW WET LAID BASES

- Dpcs: Install under full width of partitions/ freestanding wall linings.

85      MINERAL WOOL INSULATION

- Fitting insulation: Closely butted joints and no gaps. Prevent slumping.
- Electrical cables overlaid by insulation: Size accordingly.

87      SEALING GAPS AND AIR PATHS

- Sealing: Apply sealant to perimeter abutments and around openings as a continuous bead with no gaps.
  - Gaps between floor and underside of plasterboard: After sealing, fill with joint compound.

90      SEAMLESS JOINTING

- Filling and taping: Fill joints, gaps and internal angles with jointing compound and cover with continuous lengths of tape, fully bedded.
- Finishing: Feather out jointing compound to give a flush, smooth, seamless surface.
- Nail/ screw depressions and minor indents: Fill to give a flush surface.



K11

Rigid sheet flooring/ sheathing/ decking/ sarking/ linings/ casings



## K11 Rigid sheet flooring/ sheathing/ decking/ sarking/ linings/ casings

### 20 BATTENED PARTICLEBOARD FLOATING FLOOR TO BATHROOM

- Substrate: New beam and block floor.
- Resilient layer: 100mm Celotex in accordance with detail 307926-A-530.
  - Recycled content: Contractor's choice.
- Loose laid battens: 100x50 timber flush to top of insulation.
  - Additional battens: not required unless 100x50 does not extend high enough.
- Thermal insulation between battens: Low density rigid polyisocyanurate foam boards, 100 mm thick in accordance with 307926-A-530.
  - Recycled content: Contractor's choice.
- Vapour control layer: Aluminium foil taped joints to foil backed insulation.
- Floating substrate: not required.
- Flooring: Particleboard to BS EN 312, Type P5.
  - Thickness: 20 mm.
  - Edges: Tongued and grooved all edges.
  - Recycled content: Contractor's choice.
- Installation:
  - Floors with no vapour control layer: Floating layer adhesive fixed to each batten.
  - Setting out of floating substrate (where specified): Long edges running across battens. End joints central over battens and staggered.
  - Flooring over floating substrate: Spot bonded to floating substrate. All joints glued. Joints must not coincide.
  - Setting out of flooring (no floating substrate): Long edges running across battens. End joints central over battens and staggered.
  - Bonding/ Jointing adhesive: PVA to BS EN 204, class D3.
- Fixing flooring to each batten:
  - Fasteners: 50 mm x 8 gauge wood screws into pilot holes.
  - Fixing centres (maximum): 200 mm around floor perimeter and along short edges of each board; 400 mm along intermediate supports.
- Expansion provision: 10 mm clear expansion gap around perimeter of floor area and any upstands.



#### 25A     PARTICLEBOARD FLOATING FLOOR GENERALLY

- Substrate: New beam and block floor.
- Subfloor: Particleboard to BS EN 312, Type P5.
  - Thickness: 25 mm.
  - Edges: Tongued and grooved all edges.
  - Recycled content: Contractor's choice.
  - Setting out: Long edges running across joists. End joints central over joists and staggered.
  - Fixing to joists:
    - Fasteners: 50 mm x 3.35 mm annular ringed shank nails.
    - Fixing centres (maximum): 200 mm around floor perimeter and along short edges of each board; 400 mm along intermediate supports.
- Resilient layer/ Insulation: 100mm Celotex in accordance with detail 307926-A-530.
  - Recycled content: Contractor's choice.
- Vapour control layer: Aluminium foil/ kraft paper laminate taped joints to foil backed insulation.
- Floating substrate: Not required.
- Flooring: Particleboard to BS EN 312, Type P5.
  - Thickness: 25 mm.
  - Recycled content: Contractor's choice.
  - Edges: Tongued and grooved all edges.
  - Installation:
    - Floating substrate (where specified): Loose laid on resilient layer with close butted joints.
    - Flooring: Loose laid on resilient layer or spot bonded to floating substrate (where specified) with end joints staggered. All joints glued. Joints in flooring and floating substrate must not coincide.
    - Bonding/ Jointing adhesive: PVA to BS EN 204, class D3.
- Board edges at openings: Supported on loose laid battens.
- Expansion provision: 10 mm clear expansion gap around perimeter of floor area and any upstands.

#### 40     PLYWOOD WALL SHEATHING

- Substrate: Softwood studs as section G20 at 400 mm centres.
  - Additional supports: Double studs at corners, mid height noggins, head and sole plates all fixed to adjacent structure.
- Plywood: Manufactured to the relevant standards and quality control procedures specified in BS EN 636, and so marked.
  - Type: Finnish birch plywood.
  - Grade: II.
  - Nominal thickness/ number of plies: 25mm.
  - Edges: Square.
- Setting out: Long edges running across supports. End joints central over supports and staggered.
- Fixing to supports:
  - Fasteners: 50 mm x 8 gauge wood screws into pilot holes.
  - Fixing centres (maximum): 150 mm along all supported edges; 150 mm along intermediate supports.



40A     PLYWOOD ROOF SHEATHING

- Substrate: Roof trusses.
  - Additional supports: Noggins where required.
- Plywood: Manufactured to the relevant standards and quality control procedures specified in BS EN 636, and so marked.
  - Type: Finnish birch plywood.
  - Grade: II.
  - Nominal thickness/ number of plies: 25mm.
  - Edges: Square.
- Setting out: Long edges running across supports. End joints central over supports and staggered.
- Fixing to supports:
  - Fasteners: 50 mm x 8 gauge wood screws into pilot holes.
  - Fixing centres (maximum): 150 mm along all supported edges; 600 mm along intermediate supports.

65     BATTENS FOR FLOATING FLOORS

- Timber quality: Free from decay, insect attack (except ambrosia beetle damage) and with no knots wider than half the width of the section.
- Preservative treatment: As section Z12 and Wood Protection Association Commodity Specification C8.
  - Type/ Desired service life: Organic solvent Type FN/ 30 years.
- Moisture content at time of laying (maximum): 16%.

67     ADDITIONAL SUPPORTS

- Additional studs, noggings/ dwangs (Scot) and battens:
  - Provision: In accordance with board manufacturer's recommendations and as follows:
    - Tongue and groove jointed rigid board areas: To all unsupported perimeter edges.
    - Butt jointed rigid board areas: To all unsupported edges.
  - Size: Not less than 50 mm wide and of adequate thickness.
  - Treatment (where required): As for adjacent timber supports.

72     BOARD MOISTURE CONTENT AND CONDITIONING

- Moisture content of boards at time of fixing: Appropriate to end use.
- Conditioning regime: Submit proposals.

75     DRYNESS OF CONCRETE/ SCREED SUBSTRATES FOR FLOATING FLOORS

- Relative humidity above substrate when tested with a hygrometer to BS 8201, Appendix A (maximum): 75%.
  - Test points: All corners, around perimeter, and random points over area being tested.

78A     VAPOUR CONTROL LAYER IN FLOATING FLOOR CONSTRUCTION

- Location: Immediately below floating layer.
- Installation: Joints overlapped 150 mm and sealed. Membrane turned up and sealed to top face of flooring. Excess material trimmed off neatly.

78B     MOISTURE CONTROL LAYER IN FLOATING FLOOR CONSTRUCTION

- Location: Immediately below insulation layer
- Installation: Joints overlapped 150 mm and sealed. Membrane turned up and sealed to top face of flooring. Excess material trimmed off neatly.



85      FIXING GENERALLY

- Timing: Building to be weathertight before fixing boards internally.
- Moisture content of timber supports (maximum): 18%.
- Fasteners: Evenly spaced in straight lines and in pairs across joints.
  - Distance from edge of board: Sufficient to prevent damage.

90      OPEN JOINTS

- Perimeter joints and joints between boards: Free from plaster, mortar droppings and other debris.
- Temporary wedges/ packings: Remove on completion of board fixing.





L  
Windows/Doors/Stairs



L10

Windows/ Rooflights/ Screens/ Louvres



## L10 Windows/ Rooflights/ Screens/ Louvres

### 30 PVC-U WINDOWS

- Manufacturer: TRIPLE GLAZED - Submit proposals.
  - Product reference: TRIPLE GLAZED - Submit proposals.
  - Colour/ Texture: White.
- Glazing details: Insulating glass units incorporating low emissivity glass, air filled.
  - Beading: Internal.
- Ironmongery/ Accessories:
  - Casement stay;
  - Extension sill;
  - Handle;
  - Locking handle;
  - Restrictor;
  - Trickle ventilator;
  - Adhesive glazing tape;
  - Security glazing clips; or
  - Security glazing packers.
- Fixing: Through frame fixing.
  - Fastener spacing: When not predrilled or specified otherwise, position fasteners 150-250 mm from ends of each jamb, adjacent to each hanging point of opening lights, but no closer than 150 mm to a transom or mullion centre line, and at maximum 600 mm centres.

### 52 DAYLIGHT PIPE TO HALL

- Manufacturer: Monodraught.
  - Product reference: Diamond Dome SUNPIPE.
- Components: 530mm package with extensions to tubes.
  - Pipe: Aluminium, silvered internally.  
Diameter: 530 mm.  
Length: approx 7 feet.
  - Bends: 30°.
  - Roof terminal: Polycarbonate dome (UV protected).
  - Ceiling terminal: Double glazed diffuser if available.
- Accessories: Roof flashing to suit plain tiling.
- Fixing: In accordance with manufacturer's instructions.

### 75 SEALANT JOINTS

- Sealant:
  - Manufacturer: Contractor's choice.  
Product reference: Contractor's choice.
  - Colour: white.
  - Application: As section Z22 to prepared joints. Finish triangular fillets to a flat or slightly convex profile.

### 80 IRONMONGERY

- Fixing: Assemble and fix carefully and accurately using fasteners with matching finish supplied by ironmongery manufacturer. Do not damage ironmongery and adjacent surfaces.
- Checking/ adjusting/ lubricating: Carry out at completion and ensure correct functioning.



L20

Doors/ shutters/ hatches



## L20 Doors/ shutters/ hatches

### 10      TIMBER PROCUREMENT

- Timber (including timber for wood-based products): Obtained from well-managed forests and/ or plantations in accordance with:
  - The laws governing forest management in the producer country or countries.
  - International agreements such as the Convention on International Trade in Endangered Species of wild fauna and flora (CITES).
- Documentation: Provide either:
  - Documentary evidence (which has been or can be independently verified) regarding the provenance of all timber supplied.
  - Evidence that suppliers have adopted and are implementing a formal environmental purchasing policy for timber and wood-based products.

### 25      WOOD PANELLED DOORS INTERNAL

- Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
- Wood species: all doors/frames/ironmongery/sets to match existing.
- Preservative treatment: all doors/frames/ironmongery/sets to match existing.
- Finish as delivered: all doors/frames/ironmongery/sets to match existing.
- Glazing/ Infill details: all doors/frames/ironmongery/sets to match existing.
  - Manifestation: Not required.
  - Beading: Not required.
- Other requirements: all doors/frames/ironmongery/sets to match existing.

### 45A      DOORS EXTERNAL PVC-U

- Manufacturer: Submit proposals.
  - Product reference: Submit proposals.
- Finish as delivered: Polyester powder coated, colour WHITE.
- Glazing/ Infill details: Opaque double glazing.
  - Manifestation: Not required.
  - Beading: Internal.
- Ironmongery: As ironmongery schedule.
- Other requirements: Lockable.

### 45B      DOORS GARAGE ROLLER SHUTTER DOORS

- Manufacturer: Submit proposals.
  - Product reference: Submit proposals.
- Finish as delivered: Polyester powder coated, colour WHITE.
- Glazing/ Infill details: Not applicable.
  - Manifestation: Not required.
  - Beading: Not required.
- Ironmongery: As ironmongery schedule remote control electric secure.
- Other requirements: Lockable, remote control electric secure.



50      WOOD DOOR FRAMES AND ARCHITRAVES

- Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
- Species: all doors/frames/ironmongery/sets to match existing.
- Preservative treatment: all doors/frames/ironmongery/sets to match existing.
- Finish as delivered: all doors/frames/ironmongery/sets to match existing.
- Perimeter seals: all doors/frames/ironmongery/sets to match existing.
- Fixing: all doors/frames/ironmongery/sets to match existing.
  - Spacing of fixings (frames not predrilled): Maximum 150 mm from ends of each jamb, adjacent to each hanging point and at 600 mm maximum centres.

80      SEALANT JOINTS

- Sealant:
  - Manufacturer: Contractor's choice .  
Product reference: Contractor's choice .
  - Colour: White .
  - Application: As section Z22 to prepared joints. Triangular fillets finished to a flat or slightly convex profile.

85      FIXING IRONMONGERY GENERALLY

- Fasteners: Supplied by ironmongery manufacturer.
  - Finish/ Corrosion resistance: To match ironmongery.
- Holes for components: No larger than required for satisfactory fit/ operation.
- Adjacent surfaces: Undamaged.
- Moving parts: Adjusted, lubricated and functioning correctly at completion.





L30

Stairs/ ladders/ walkways/ handrails/ balustrades



### L30 Stairs/ ladders/ walkways/ handrails/ balustrades

#### 50      PURPOSE MADE BALUSTRADES TO BALCONY

- Component material, grade and finish as delivered:
  - Guarding: Stainless steel - satin polished.
  - Handrails: Stainless steel - satin polished.
- Workmanship:
  - Joinery: As section Z10.
  - Metalwork: As section Z11.
- Other requirements: None.
- Fixing: Welded off site.
  - Centres: AS DRAWING.

#### 65      PURPOSE MADE HANDRAILS TO BALCONY

- Component material, grade and finish as delivered:
  - Handrails: Stainless steel - satin polished.
  - Brackets: Stainless steel - satin polished.
- Workmanship:
  - Joinery: As section Z10.
  - Metalwork: As section Z11.
- Other requirements: None.
- Fixing: Welded off site.
  - Centres: As drawings.

#### 80      INSTALLATION GENERALLY

- Fasteners and methods of fixing: To Section Z20.
- Structural members: Do not modify, cut, notch or make holes in structural members, except as indicated on drawings.
- Temporary support: Do not use stairs, walkways or balustrades as temporary support or strutting for other work.
- Applied features (finishes, inserts, nosings, etc): Substrates to be even, dry, sound and free from contaminants. Make good substrate surfaces and prepare/ prime as applied feature manufacturer's recommendations before application.



L40  
General glazing



## L40 General glazing

### 10 WORKMANSHIP GENERALLY

- Glazing:
  - Generally: To BS 6262.
  - Integrity: Wind and watertight under all conditions. Make full allowance for deflections and other movements.
- Glass:
  - Standards: Generally to BS 952 and to the relevant parts of:
    - BS EN 572 for basic soda lime silicate glass.
    - BS EN 1096 for coated glass.
    - BS EN 12150 for thermally toughened soda lime silicate glass.
    - BS EN ISO 12543 for laminated glass.
  - Quality: Free from scratches, bubbles and other defects.
  - Dimensional tolerances: Panes/ sheets to be accurately sized.
- Material compatibility: Glass/ plastics, surround materials, sealers primers and paints/ clear finishes to be compatible. Comply with glazing/ sealant manufacturers' recommendations.

### 20 REMOVAL OF GLASS/ PLASTICS FOR REUSE

- Existing glass/ plastics, glazing compound, beads, etc.: Remove carefully, avoiding damage to frame, to leave clean, smooth rebates free from obstructions and debris. Clean glazing, beads and other components that are to be reused.
- Deterioration of frame/ surround: Submit report on defects revealed by removal of glazing.
  - Affected areas: Do not reglaze until instructed.

### 30 PREPARATION

- Surrounds, rebates, grooves and beads: Clean and prepare before installing glazing.



M

Surface finishes



M20

Plastered/ Rendered/ Roughcast coatings





## M20 Plastered/ Rendered/ Roughcast coatings

### 19A RENDER SYSTEM

- Manufacturer: Knauf UK.
  - Web: [www.knauf.co.uk/marmorit](http://www.knauf.co.uk/marmorit).
  - Email: [orders@knauf.co.uk](mailto:orders@knauf.co.uk).
  - Product reference: Render system
- Substrate: Concrete blockwork.
- Undercoat:
  - Type: SM700.
  - Thickness: 25mm.
  - Reinforcing mesh: 5 x 5 mm polymer coated glass fibre mesh.
- Final coat:
  - Render: Conni S.
  - Colour: White.
- Masonry paint: Autol, colour.

### 25 GYPSUM PLASTER ON CEMENT GAUGED UNDERCOATS FIRST FLOOR

- Substrate: Concrete blockwork .
  - Preparation: Apply bonding coat.
- Undercoats:
  - Sand: To BS EN 13139.
    - Grading: 0/2 or 0/4 (CP or MP); category 2 fines.
  - Mix: 1:5-6 sulfate resisting cement:sand (air entrained).
  - Thickness (excluding dubbing out and keys): 12mm.
- Final coat: Gypsum plaster to BS EN 13279-1, class B.
  - Manufacturer: Contractor's choice.
    - Product reference: Contractor's choice.
  - Thickness: 2-3 mm.
  - Finish: Plain.

### 50 GYPSUM PLASTER SKIM COAT ON PLASTERBOARD

- Plasterboard manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
- Plaster: Board finish plaster to BS EN 13279-1, class B.
  - Manufacturer: Contractor's choice.
    - Product reference: Contractor's choice.
  - Thickness: 2-5 mm.
  - Finish: Smooth.

#### 60 CEMENTS FOR MORTARS

- Cement: To BS EN 197-1.
  - Types: Portland cement, CEM I.  
Portland slag cement, CEM II.  
Portland fly ash cement, CEM II.
  - Strength class: 32.5, 42.5 or 52.5.
- Sulfate resisting cement: To BS EN 197-1.
  - Strength class: 42.5.
- Masonry cement: To BS EN 998-1 and Kitemarked
  - Class: MC 12.5 (with air entraining agent).

#### 62 ADMIXTURES FOR CEMENT GAUGED MORTARS

- Air entraining (plasticizing) admixtures: To BS EN 934-2 and compatible with other mortar constituents.
- Other admixtures: Submit proposals.
- Prohibited admixtures: Calcium chloride and admixtures containing calcium chloride.

#### 65 MIXING

- Render mortars (site-made):
  - Batching: By volume using gauge boxes or buckets.
  - Mix proportions: Based on damp sand. Adjust for dry sand.
- Mixes: Of uniform consistence and free from lumps.

#### 67 COLD WEATHER

- Internal work: Take precautions to prevent damage to internal coatings when air temperature is below 3°C.
- External work: Avoid when air temperature is at or below 5°C and falling or below 3°C and rising.

#### 71 SUITABILITY OF SUBSTRATES

- General: Suitable to receive coatings. Sound, free from contamination and loose areas.

#### 80 PLASTERBOARD BACKINGS

- Additional framing supports:
  - Fixtures, fittings and service outlets: Accurately position to suit fasteners.
  - Board edges and perimeters: To suit type and performance of board.
- Joints:
  - Joint widths (maximum): 3 mm.
  - End joints: Stagger between rows.
  - Two layer boarding: Stagger joints between layers.
- Joint reinforcement tape: Apply to joints and angles except where coincident with metal beads.

#### 82 BEADS/ STOPS

- Location: External angles and stop ends.
- Materials:
  - External render: Stainless steel.
  - Internal plaster/ render: Galvanized steel.
- Fixing: Secure and true to line and level.
  - Beads/ stops to external render: Fix mechanically.



87      APPLICATION OF COATINGS

- General: Apply coatings firmly and achieve good adhesion.
- Appearance of finished surfaces: Even and consistent. Free from rippling, hollows, ridges, cracks and crazing.
  - Accuracy: Finish to a true plane with walls and reveals plumb and square.
- Drying out: Prevent excessively rapid or localized drying out.
- Keying undercoats: Cross scratch (plaster coatings) and comb (render coatings). Do not penetrate undercoat.

93      CURING AND DRYING OF RENDER COATINGS

- Curing: Keep each coat damp by covering with polyethylene sheet and/ or spraying with water
  - Curing period (minimum): As recommended by render manufacturer..
- Drying: Allow each coat to dry thoroughly, with shrinkage substantially complete before applying next coat.

99      RENDER FINAL COAT - PLAIN FLOATED FINISH

- Finish: Even, open texture free from laitance.



M40

Stone/ Concrete/ Quarry/ Ceramic tiling/ Mosaic

## M40 Stone/ Concrete/ Quarry/ Ceramic tiling/ Mosaic

### 5 TILING TO

- Tiles: BATHROOM WALLS.
  - Manufacturer/ Supplier: Submit proposals.
  - Product reference: Submit proposals.
  - Colour: TBC.
  - Size: ??? x ??? mm.
  - Recycled content: Submit proposals.
  - Other requirements: None.
- Background/ Base: New plaster.
  - Preparation: None.
- Intermediate substrate: Not required.
- Bedding: Adhesive bed notched trowel method, as clause 50.
  - Adhesive: In accordance with manufacturers recommendations ref clause 30.
- Joint width: As spacer lugs.
- Grout: BS EN 13888 CG1 for normal cementitious grout .
  - Type/ classification: CG1.
- Movement joints: As clause 75.
  - Location: At perimeter of all rooms.
- Accessories: None.

### 5A TILING TO

- Tiles: BATHROOM FLOORS.
  - Manufacturer/ Supplier: Submit proposals.
  - Product reference: Submit proposals.
  - Colour: TBC.
  - Size: ??? x ??? mm.
  - Recycled content: Submit proposals.
  - Other requirements: Dry/ wet slip resistance (SRV) (minimum) 35/ 25.
- Background/ Base: Boarding.
  - Preparation: None.
- Intermediate substrate: Not required.
- Bedding: Adhesive bed notched trowel method, as clause 50.
  - Adhesive: In accordance with manufacturers recommendations ref clause 30.
- Joint width: As spacer lugs.
- Grout: BS EN 13888 CG1 for normal cementitious grout .
  - Type/ classification: CG1.
- Movement joints: As clause 75.
  - Location: At perimeter of all rooms.
- Accessories: None.



15      NEW BACKGROUNDS/BASES

- Background drying times (minimum):
  - Brick/block walls: 6 weeks.
  - Rendering: 2 weeks.
  - Gypsum plaster: 4 weeks.
- Base drying times (minimum):
  - Concrete slabs: 6 weeks.
  - Cement:sand screeds: 3 weeks.

20      EXISTING BACKGROUNDS/BASES GENERALLY

- Efflorescence, laitance, dirt, loose and defective material: Remove and make good defective areas with materials compatible with background/base and bedding.
- Deposits of oil, grease and other materials incompatible with the bedding: Remove.
- Tile, paint and other nonporous surfaces: Clean.
- Wet backgrounds: Dry before tiling.
- Paint with unsatisfactory adhesion: Remove so as not to impair bedding adhesion.

25      NEW PLASTER

- Plaster primer: Apply if recommended by adhesive manufacturer.

30      FIXING GENERALLY

- Colour/ shade: Avoid unintended variations within tiles for use in each area/ room.
  - Variegated tiles: Mix thoroughly.
- Adhesive: Compatible with background/ base.
- Cut tiles: Neat and accurate.
- Fixing: Provide adhesion over entire background/ base and tile backs.
- Final appearance: Before bedding material sets, make adjustments necessary to give true, regular appearance to tiles and joints.
- Deviation of surface: Measure from underside of a 2 m straightedge with 3 mm thick feet placed anywhere on surface. The straightedge should not be obstructed by the tiles/ mosaics and no gap should be greater than 6 mm, i.e. a tolerance of  $\pm 3$  mm.
- Surplus bedding material: Clean from joints and face of tiles/ mosaics.

35      SETTING OUT

- Joints: True to line, continuous and without steps.
  - Joints on walls: Horizontal, vertical and aligned round corners.
  - Joints in floors: Parallel to main axis of space or specified features.
- Cut tiles: Minimise number, maximise size and locate unobtrusively.
- Joints in adjoining floors and walls: Align.
- Joints in adjoining floors and skirtings: Align.

40      TILE SKIRTINGS

- Bedding: Solid to wall on Cement based adhesive.

50      ADHESIVE BED - NOTCHED TROWEL METHOD TO WALLS

- Application: By 3 mm floated coat of adhesive to dry background. Comb surface.
- Tiling: Press tiles firmly onto float coat.





57      ADHESIVE BED - BUTTERING METHOD

- Tiling: Apply even coat of adhesive to backs of dry tiles. Fill any ribbed, deep keyed or button profiles.
- Finished adhesive thickness:
  - Walls: 3 mm or within the range allowed by the adhesive manufacturer.
  - Floors: Within the range allowed by the adhesive manufacturer.

60      ADHESIVE BED - NOTCHED TROWEL AND BUTTERING METHOD TO FLOORS

- Application: Floated coat of adhesive to dry base and comb surface.
- Tiling: Apply coat of adhesive to backs of dry tiles. Fill any profiles. Press tiles firmly onto float coat.
- Finished adhesive thickness: Within range allowed by manufacturer.

70      GROUTING

- Sequence: Grout when bed/adhesive has set sufficient to prevent disturbance of tiles.
- Joints: 6 mm deep (or depth of tile if less). Free from dust and debris.
- Grouting: Fill joints completely, tool to profile, clean off surface. Leave free from blemishes.
- Polishing: When grout is hard, polish tiling with dry cloth.

75      SEALANT MOVEMENT JOINTS IN TILING TO WALLS

- Joints: Extend through tiles and bedding to base/ background. Centre over joints in base/ background.
  - Width: 6 mm .
- Sealant: Two part polysulfide to approval .
  - Colour: To match grout .
  - Preparation and application: As section Z22.

75A      SEALANT MOVEMENT JOINTS IN TILING TO FLOORS

- Joints: Extend through tiles and bedding to base/ background. Centre over joints in base/ background.
  - Width: 6 mm .
- Sealant: Two part polysulfide to approval .
  - Colour: To match grout .
  - Preparation and application: As section Z22.



M50

Rubber/ plastics/ cork/ lino/ carpet tiling/ sheeting



## M50 Rubber/ plastics/ cork/ lino/ carpet tiling/ sheeting

### 25      CARPETING GENERALLY

- Base: Boarding.
  - Preparation: None.
- Fabricated underlay: Hardboard as clause 50.
- Carpet underlay: TBC.
  - Manufacturer: Submit proposals.  
Product reference: Not applicable.
  - Recycled content: Submit proposals.
- Underlay adhesive (and primer if recommended by manufacturer): as recommended by manufacturer.
- Carpet: TBC.
  - Manufacturer: Not applicable.  
Product reference: Not applicable.
  - Recycled content: Submit proposals.
  - Width: TBC.
  - Colour/ pattern: TBC.
- Carpet adhesive (and primer if recommended by manufacturer): as recommended by manufacturer.

### 65      LAYING COVERINGS

- Base/ substrate condition: Rigid, dry, smooth, free from grease, dirt and other contaminants.
- Use a primer where recommended by adhesive manufacturer. Allow to dry thoroughly.
- Adhesive: As specified, as recommended by covering manufacturer or, as approved.
- Conditioning of materials prior to laying: As recommended by manufacturer.
- Environment: Before, during and after laying, provide adequate ventilation and maintain temperature and humidity approximately at levels which will prevail after building is occupied.
- Finished coverings: Accurately fitted, tightly jointed, securely bonded, smooth and free from air bubbles, rippling, adhesive marks, stains, trowel ridges and high spots.

### 80      SKIRTINGS

- Types: Timber/MDF to match existing .
- Manufacturer: Contractor's choice .
  - Product reference: Contractor's choice .
- Fixing: Securely bond with mitred corners.

### 85      WASTE

- Spare covering material: Retain suitable material for patching. On completion submit pieces for selection. Hand over selected pieces to Employer.



M52

Decorative papers/fabrics



## M52 Decorative papers/fabrics

### 10 COVERING FOR GENERALLY

- Substrate: New sealed plaster.
  - Preparation: Not required.
  - Treatment: Not required.
- Adhesive: To BS 3046, Type 1.
- Lining: As covering manufacturer's recommendations.
- Covering: If required, TBC.
  - Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
  - Colour/ pattern: TBC
  - Other requirements: None.

### 21 PREPARATION OF SUBSTRATES GENERALLY

- Substrates: Sufficiently dry in depth to suit covering to be hung.
- Efflorescence salts, dirt, grease and oil: Remove.
- Organic growths and infected coatings/ decorations: Remove and dispose of. Apply treatment biocide to assist removal and residual effect biocide to inhibit regrowth.
- Substrate irregularities: Fill cracks, joints, holes and other depressions with stoppers/ fillers. Abrade to a smooth finish.
- Dust, particles and residues from abrasion: Remove.

### 60 HANGING GENERALLY

- Completed coverings: Securely adhered, smooth and free of air bubbles, wrinkles, gaps, tears, adhesive marks and stains. Joints truly vertical/horizontal and straight.

### 70 LININGS

- Type and weight: To suit coverings and substrates.
- Hang lengths: With neat butt joints; do not overlap.
- Drying period: Leave for 24 hours before hanging coverings.

### 80 COVERINGS

- Colour consistency: Check before hanging each length and after hanging first three lengths.
- Hanging lengths:
  - Wall coverings: Vertical.
  - Ceiling coverings: Parallel to main window wall.
- Butt joints: Hang lengths with neat butt joints generally.
- Overlap joints: Permitted only where recommended by covering manufacturer. Cut through joints when stable to a true straight edge.
- Cross joints: Permitted only where single lengths are impractical.



M60

Painting/ clear finishing



## M60 Painting/ clear finishing

- 10      EMULSION PAINT TO INTERNAL PLASTERED SURFACES
- Manufacturer: Contractor's choice.
    - Product reference: Contractor's choice.
  - Surfaces: internal.
    - Preparation: Tape and fill joints and Wash down all surfaces.
  - Initial coats: As recommended by manufacturer.
    - Number of coats: As recommended by manufacturer.
  - Undercoats: As recommended by manufacturer.
    - Number of coats: As recommended by manufacturer.
  - Finishing coats: TBC.
    - Number of coats: As recommended by manufacturer.
- 10A      EMULSION PAINT TO INTERNAL CEILINGS AND COVINGS
- Manufacturer: Contractor's choice.
    - Product reference: Contractor's choice.
  - Surfaces: internal.
    - Preparation: Tape and fill joints and Wash down all surfaces.
  - Initial coats: As recommended by manufacturer.
    - Number of coats: As recommended by manufacturer.
  - Undercoats: As recommended by manufacturer.
    - Number of coats: As recommended by manufacturer.
  - Finishing coats: TBC.
    - Number of coats: As recommended by manufacturer.
- 12      GLOSS PAINT TO INTERNAL EXPOSED SOFTWOOD
- Manufacturer: Contractor's choice.
    - Product reference: Contractor's choice.
  - Surfaces: Preprimed and sealed.
    - Preparation: Degrease and provide key.
  - Initial coats: As recommended by manufacturer.
    - Number of coats: As recommended by manufacturer.
  - Undercoats: As recommended by manufacturer.
    - Number of coats: As recommended by manufacturer.
  - Finishing coats: Full gloss.
    - Number of coats: As recommended by manufacturer.
- 25      SURFACES NOT TO BE COATED
- Radiator valves and stop valves .



30      PREPARATION GENERALLY

- Standard: In accordance with BS 6150.
- Risk assessment and method statement for hazardous materials: Prepare for operations, disposal of waste, containment and reoccupation, and obtain approval before commencing work.
- Preparation materials: Types recommended by their manufacturers and the coating manufacturer for the situation and surfaces being prepared.
- Substrates: Sufficiently dry in depth to suit coating.
- Efflorescence salts, dirt, grease and oil: Remove.
- Surface irregularities: Provide smooth finish.
- Organic growths and infected coatings:
  - Remove with assistance of biocidal solution.
  - Apply residual effect biocidal solution to inhibit regrowth.
- Joints, cracks, holes and other depressions: Fill with stoppers/ fillers. Provide smooth finish.
- Dust, particles and residues from preparation: Remove and dispose of safely.
- Doors, opening windows and other moving parts:
  - Ease, if necessary, before coating.
  - Prime resulting bare areas.

37      WOOD PREPARATION

- General: Provide smooth, even finish with lightly rounded arrises.
- Degraded or weathered surface wood: Take back surface to provide suitable substrate.
- Degraded substrate wood: Repair with sound material of same species.
- Heads of fasteners: Countersink sufficient to hold stoppers/ fillers.
- Resinous areas and knots: Apply two coats of knotting.
- Defective primer: Take back to bare wood and reprime.

43      PLASTER PREPARATION

- Nibs, trowel marks and plaster splashes: Scrape off.
- Overtrowelled 'polished' areas: Provide suitable key.

52      SEALING OF INTERNAL MOVEMENT JOINTS

- General: To junctions of walls and ceilings with architraves, skirtings and other trims.
- Sealant: Water based acrylic.
  - Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
  - Preparation and application: As section Z22.

55      EXISTING GUTTERS

- Dirt and debris: Remove from inside of gutters.
- Defective joints: Clean and seal with suitable jointing material.
- Suspected hazardous materials: submit method statement.



61      COATING GENERALLY

- Application standard: In accordance with BS 6150, clause 9.
- Conditions: Maintain suitable temperature, humidity and air quality.
- Surfaces: Clean and dry at time of application.
- Thinning and intermixing: Not permitted unless recommended by manufacturer.
- Priming coats: Apply as soon as possible on same day as preparation is completed.
- Finish:
  - Even, smooth and of uniform colour.
  - Free from brush marks, sags, runs and other defects.
  - Cut in neatly.
- Doors, opening windows and other moving parts: Ease before coating and between coats.



N  
Furniture/Equipment



N13

Sanitary appliances and fittings



## N13 Sanitary appliances and fittings

### 10 WC PANS AND FLUSHING ARRANGEMENTS

- Standard: To Defra WC suite performance specification or equivalent approved by the relevant water company.
- Type: Close coupled cistern.
- Pan: TBC.
  - Seat: To BS 1254 and Kitemarked, colour to match pan.
  - Pan connector: To BS 5627, colour to match pan.
- Flushing arrangement: Cistern with plastics diaphragm type valve to BS 1212-3 and float to BS 2456.
- Accessories: Tag for equipotential earth bonding.

### 30 WASH BASINS

- Type: TBC.
- Taps: TBC.
  - Water supply temperature (maximum): TBC.
- Wastes: TBC..
- Traps: TBC.
- Accessories: TBC.

### 35 BATHS

- Type: TBC.
- Taps: TBC.
  - Water supply temperature (maximum): TBC.
- Wastes: TBC.
- Traps: TBC.
- Accessories: TBC.

### 40 SHOWER UNITS

- Tray: TBC.
- Shower fittings: TBC.
  - Water supply temperature (maximum): TBC.
- Wastes: TBC.
- Traps: TBC.
- Enclosure: TBC.

### 68 SEALANT FOR POINTING

- Standard: To BS EN ISO 11600.
  - Class: F20 HM.
- Type: Mastic.
  - Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
- Colour: To match surround.





70      INSTALLATION GENERALLY

- Assembly and fixing: Fix appliances securely to structure, without taking support from pipelines, level and plumb and so that surfaces designed to fall drain as intended.
- Jointing and bedding compounds: Recommended by manufacturers of appliances, accessories and pipes, to form watertight joints between appliances and backgrounds (except cisterns) and between appliances and discharge pipes.

75      CISTERNS

- Cistern operating components: Obtain from cistern manufacturer.
  - Float operated valve: Matched to pressure of water supply.
- Overflow pipe: Fixed to falls, and located to give visible warning of discharge. Agree position.



P  
Building fabric sundries



P10

Sundry insulation/ proofing work



## P10 Sundry insulation/ proofing work

### 15A INSULATION FITTED BETWEEN CEILING / RAFTER JOISTS

- Manufacturer: Celotex.
  - Product reference: XR3150.
- Material: Polyisocyanurate rigid insulation.
- Recycled content: Not applicable.
- Thickness: 150mm.
- Installation requirements:
  - Joints: Butted, no gaps.
  - Fasteners: Used where necessary to prevent slumping.
  - Air space above insulation: Not required.
  - Eaves ventilation: Unobstructed.
  - All insulation to maintain a lapped and sealed VCL to the warm side of the insulation

### 15B INSULATION FITTED OVER CEILING / RAFTER JOISTS

- Manufacturer: Celotex.
  - Product reference: GA3050.
- Material: Polyisocyanurate rigid insulation.
- Recycled content: Not applicable.
- Thickness: 50mm.
- Installation requirements:
  - Joints: Butted, no gaps.
  - Fasteners: Used where necessary to prevent slumping.
  - Air space above insulation: Not required.
  - Eaves ventilation: Unobstructed.

### 40A INSULATION FITTED BETWEEN STUDS TO INTERNAL WALLS

- Manufacturer: British Gypsum.
  - Product reference: Isocover 1200.
- Recycled content: Not applicable.
- Thickness: 25mm.
- Installation requirements:
  - Joints: Butted, no gaps.
  - Fasteners: Used to prevent slumping.

### 40B INSULATION FITTED BETWEEN STUDS TO BAY WINDOW

- Manufacturer: Celotex.
  - Product reference: GA3100.
- Recycled content: Not applicable.
- Thickness: 100mm.
- Installation requirements:
  - Joints: Butted, no gaps.
  - Fasteners: Used to prevent slumping.



40C INSULATION FITTED OVER STUDS TO BAY WINDOW

- Manufacturer: Celotex.
  - Product reference: CW3025.
- Recycled content: Not applicable.
- Thickness: 25mm.
- Installation requirements:
  - Joints: Butted, no gaps.
  - Fasteners: Used to prevent slumping.
  - All insulation to maintain a lapped and sealed VCL to the warm side of the insulation

45A INSULATION LAID OVER BEAM AND BLOCK FLOOR

- Manufacturer: Celotex.
  - Product reference: GA3100.
- Recycled content: Not applicable.
- Thickness: 100mm.
- Installation requirements:
  - Joints: Butted, no gaps.
  - Service openings: Sealed.
  - Electric cables overlaid by insulation: Sized accordingly.
  - All insulation to maintain a lapped and sealed VCL to the warm side of the insulation

60 VAPOUR CONTROL LAYER FIXED TO STUDS/ JOISTS/ FRAMING

- Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
- Material: 1000 gauge virgin polyethylene.
- Moisture content of timber at time of fixing (maximum): 20%.
- Installation requirements:
  - Setting out: Joints minimized.
  - Fixing: Staples at 250 mm centres maximum along all supports. Membrane not sagging.
  - Joints: At supports only, lapped 150 mm minimum.
  - Openings: Membrane fixed to reveals.
  - Joints and edges: Sealed with double sided tape.
  - Penetrations: Sealed.

65 BREATHER MEMBRANE

- Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
- Installation requirements:
  - Set out: Joints minimized. Membrane to form a continuous barrier to prevent water, snow and wind blown dust reaching the substrate.
  - Joints: Lapped 100 mm minimum horizontally and 150 mm minimum vertically.
  - Fixings: Galvanized, sherardized or stainless steel large head nails or stainless steel staples.
  - Bottom edges: Membrane lapped over flashings, sills, etc. to allow free drainage to the exterior.
  - Penetrations: Sealed.



P20

Unframed isolated trims/ skirtings/ sundry items



## P20 Unframed isolated trims/ skirtings/ sundry items

### 10      SOFTWOOD ARCHITRAVES

- Quality of wood and fixing: To BS 1186-3.
  - Species: Contractor's choice.
  - Class: 2.
- Moisture content at time of fixing: 12-19%.
- Preservative treatment: Water-based microemulsion as section Z12, service life 30 years.
- Fire rating: Not applicable.
- Profile: To match existing.
  - Finished size: 13 x 45 mm.
- Finish as delivered: Prepared and primed as section M60.
- Fixing: Plugged, and screwed at 450 centres.

### 20A    HARDWOOD SKIRTINGS GENERALLY

- Quality of wood and fixing: To BS 1186-3.
  - Species: Contractor's choice.
  - Class: 2.
- Moisture content at time of fixing: 12-19% .
- Preservative treatment: Water-based microemulsion as section Z12, service life 30 years.
- Profile: To match existing.
  - Finished size: To match existing.
- Finish as delivered: Prepared and primed as M60/???
- Fixing: Plugged, screwed and pelleted at 450mm centres.

### 20B    HARDWOOD WINDOW BOARDS

- Quality of wood and fixing: To BS 1186-3.
  - Species: Contractor's choice.
  - Class: 2.
- Moisture content at time of fixing: 12-19% .
- Preservative treatment: Water-based microemulsion as section Z12, service life 30 years.
- Profile: To match existing.
  - Finished size: To match existing.
- Finish as delivered: Prepared and primed as M60/???
- Fixing: Plugged, screwed and pelleted at 450mm centres.

### 40A    PLYWOOD TO INTERNAL FACE OF BAY AND INTERNALLY TO STUD WALLS WHERE INDICATED ON DRAWINGS

- Face ply species: Selected by contractor.
- Appearance class to BS EN 635: Class I/II.
- Bond quality to BS EN 314-2: Class 2.
- Thickness: 15 mm.
- Edges: Square.
- Support/ Fixing: flush screwed.





55A     PROPRIETARY OSB TO BATHROOM FLOOR

- Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
- Type: Moisture resistant.
- Thickness: 20mm.
- Finish: As supplied.
- Support/ Fixing: As manufacturer's recommendations.
- Other requirements: None.

55B     PROPRIETARY OSB GENERALLY

- Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
- Type: General.
- Thickness: 25mm.
- Finish: As supplied.
- Support/ Fixing: As manufacturer's recommendations.
- Other requirements: None.

80        INSTALLATION GENERALLY

- Joinery workmanship: As section Z10.
- Metal workmanship: As section Z11.
- Methods of fixing and fasteners: As section Z20.
- Straight runs: To be in one piece, or in long lengths with as few joints as possible.
- Running joints: Location and method of forming to be agreed where not detailed.
- Joints at angles: Mitre, unless shown otherwise.
- Position and level: To be agreed where not detailed.



P21

Door/ window ironmongery



## P21 Door/ window ironmongery

### 2 QUANTITIES AND LOCATIONS

- Quantities and locations of ironmongery are in the ironmongery schedule .
- Fixing: As sections L10 and L20.

### 6 SINGLE AXIS DOOR HINGES GENERALLY

- Standard: To BS EN 1935.
  - Hinges to doors on escape routes and fire/ smoke control doors: CE marked.
- Manufacturer: Contractor's choice .
  - Product reference: Contractor's choice .
- Type: To match existing .
- Size: To match existing .
- Material/ finish: To match existing .
- Hinge grade: To match existing .
- Other requirements: To match existing .

### 22 THIEF RESISTANT DOOR LOCKS TO EXTERNAL DOOR

- Standard: To BS 3621 and Kitemarked.
- Manufacturer: Contractor's choice .
  - Product reference: Contractor's choice .
- Type: Multipoint supplied by door manufacturer .
- Backset: supplied by door manufacturer .
- Material/ finish: supplied by door manufacturer .
- Keying: supplied by door manufacturer .

### 24 DOOR LOCKS TBC

- Standard: To BS EN 12209.
- Manufacturer: Contractor's choice .
  - Product reference: Contractor's choice
- Type: to match existing .
- Backset: to match existing .
- Material/ finish: to match existing .
- Keying: to match existing .

### 28 DOOR LATCHES to match existing

- Standard: To BS EN 12209.
- Manufacturer: Contractor's choice .
  - Product reference: Contractor's choice .
- Type: to match existing .
- Backset: to match existing .
- Material/ finish: to match existing .
- Latch spring strength: Select to prevent unsprung lever handles drooping.



- 34      DOOR BOLTS Supplied by Door manufacturer
- Standard: To BS EN 12051.
  - Manufacturer: Supplied by Door manufacturer .
    - Product reference: Supplied by Door manufacturer .
  - Type: Supplied by Door manufacturer .
  - Size: Supplied by Door manufacturer .
  - Material/ finish: Supplied by Door manufacturer .
- 38      LEVER HANDLES INTERNALLY - To match existing
- Standard: To BS EN 1906.
  - Manufacturer: Contractor's choice .
    - Product reference: Contractor's choice .
  - Style: To match existing .
  - Size: To match existing .
  - Material/ finish: To match existing .
  - Mounting: To match existing .
- 44      PUSH PLATES INTERNALLY To match existing
- Manufacturer: Contractor's choice .
    - Product reference: Contractor's choice .
  - Size: To match existing .
  - Material/ finish: To match existing .
  - Mounting: To match existing .
- 46      KICK PLATES INTERNALLY To match existing
- Manufacturer: Contractor's choice .
    - Product reference: Contractor's choice .
  - Size: To match existing .
  - Material/ finish: To match existing .
  - Mounting: To match existing .
- 48      ESCUTCHEONS INTERNALLY To match existing
- Manufacturer: Contractor's choice .
    - Product reference: Contractor's choice .
  - Material/ finish: To match existing .
  - Keyhole type: To match existing .
- 50      DOOR STOPS INTERNALLY To match existing
- Manufacturer: Contractor's choice .
    - Product reference: Contractor's choice .
  - Type: To match existing .
- 60      THRESHOLD WEATHERSTRIP EXTERNALLY supplied by door manufacturer
- Manufacturer: Contractor's choice .
    - Product reference: Contractor's choice .
  - Type: supplied by door manufacturer .
  - Size: supplied by door manufacturer
  - Material/ finish: To match existing .



62      WEATHERSTRIP TO DOOR HEAD AND JAMBS EXTERNALLY supplied by door manufacturer

- Manufacturer: Contractor's choice .
  - Product reference: Contractor's choice .
- Type: supplied by door manufacturer .
- Size: supplied by door manufacturer .
- Material/ finish: To match existing .

72      WINDOW HINGES supplied by door manufacturer

- Manufacturer: Contractor's choice .
  - Product reference: Contractor's choice .
- Type: supplied by door manufacturer .
- Size: supplied by door manufacturer .
- Material/ finish: To match existing .

92      WEATHERSTRIP TO WINDOWS EXTERNALLY supplied by door manufacturer

- Manufacturer: Contractor's choice .
  - Product reference: Contractor's choice .
- Type: supplied by door manufacturer .
- Size: supplied by door manufacturer .
- Material/ finish: To match existing .



P30

Trenches, pipeways and pits for buried engineering services



## P30 Trenches, pipeways and pits for buried engineering services

### 10 ROUTES OF SERVICES BELOW GROUND

- Locations of new service runs: Submit proposals.
- Temporary marking: Indicate service runs with marker posts.

### 20 TRENCHES

- Width: As small as practicable.
- Trench sides: Vertical.
- Trench bottoms: Remove mud, rock projections, boulders and hard spots. Trim level.
- Give notice: To inspect trench for each section of the work.

### 30 PIPEDUCTS

- Types, colour and sizes: As recommended by the service undertaker.
- General: Lay pipes straight to line, true to gradient or level on an even, continuous bed.
- Bedding thickness: 100 mm minimum.
- Clearance between pipe ducts where they cross (minimum): 50 mm.
- Drawlines: During laying, thread through pipeducts.
  - Material, strength and length: As specified by service undertaker.
- Protection: Protect from ingress of debris. During construction, temporarily seal all exposed ends.
- Inspection: Before backfilling, allow service undertakers to inspect installation.
- Surround material: Lay and compact to 150 mm (minimum) above pipeduct crown.
- Markers: Lay marker, 200 mm above pipeduct.
  - Type: Boards.

### 40 BEDDING/ SURROUND FOR PIPEDUCTS

- Bedding:
  - Granular material: To Department for Transport (DfT) 'Specification for the reinstatement of openings in highways: code of practice' 3rd Edition.
  - Compact uniformly in 100 mm maximum layers.
- Surround: Selected material, free from vegetable matter, rubbish, frozen soil and excluding lumps and stones retained on a 40 mm sieve. Thoroughly compact by hand in 150 mm maximum layers.

### 50 BACKFILLING

- Requirements: To Department for Transport (DfT) 'Specification for the reinstatement of openings in highways: code of practice' 3rd Edition.





P31

Holes, chases, covers and supports for services



## P31 Holes, chases, covers and supports for services

### 10 HOLES, RECESSES AND CHASES IN MASONRY

- Locations: To maintain integrity of strength, stability and sound resistance of construction.
- Sizes: Minimum needed to accommodate services.
  - Holes (maximum): 300 mm<sup>2</sup>.
- Walls of hollow or cellular blocks: Do not chase.
- Walls of other materials:
  - Vertical chases: No deeper than one third of single leaf thickness, excluding finishes.
  - Horizontal or raking chases: No longer than 1 m. No deeper than one sixth of the single leaf thickness, excluding finishes.
- Chases and recesses: Do not set back to back. Offset by a clear distance at least equal to the wall thickness.
- Cutting: Do not cut until mortar is fully set. Cut carefully and neatly. Avoid spalling, cracking and other damage to surrounding structure.

### 20 NOTCHES AND HOLES IN STRUCTURAL TIMBER

- General: Avoid if possible.
- Sizes: Minimum needed to accommodate services.
- Position: Do not locate near knots or other defects.
- Notches and holes in same joist: Minimum 100 mm apart horizontally.
- Notches in joists:
  - Position: Locate at top. Form by sawing down to a drilled hole.
  - Depth (maximum): 0.15 x joist depth.
  - Distance from supports: Between 0.1 and 0.2 x span.
- Holes in joists:
  - Position: Locate on neutral axis.
  - Diameter (maximum): 0.25 x joist depth.
  - Centres (minimum): 3 x diameter of largest hole.
  - Distance from supports: Between 0.25 and 0.4 of span.
- Notches in roof rafters, struts and truss members: Not permitted.
- Holes in struts and columns: Locate on neutral axis.
  - Diameter (maximum): 0.25 x minimum width of member.
  - Centres (minimum): 3 x diameter of largest hole.
  - Distance from ends: Between 0.25 and 0.4 of span.

### 30 PIPE SLEEVES

- Material: Match pipeline.
- Sleeves: Extend through full thickness of wall or floor. Position accurately.
  - Clearance around service (maximum): 20 mm or diameter of service, whichever is the lesser.
  - Installation: Bed solid.



40      SEALING AROUND SERVICES

- Service: Telecommunications and network cabling.
- Location: As drawings.
- Sealing material: Tightly rammed mineral wool.
- Method: Completely fill gaps with sealant and finish neatly.
- Requirements: Prevent insect ingress.

40A      SEALING AROUND SERVICES

- Service: Electrical conduits.
- Location: As drawings.
- Sealing material: Tightly rammed mineral wool.
- Method: Completely fill gaps with sealant and finish neatly.
- Requirements: Prevent insect ingress.

40B      SEALING AROUND SERVICES

- Service: Hot and cold water pipes.
- Location: As drawings.
- Sealing material: Tightly rammed mineral wool.
- Method: Completely fill gaps with sealant and finish neatly.
- Requirements: Prevent insect ingress.

40C      SEALING AROUND SERVICES

- Service: Warning/Overflow/Vent pipes.
- Location: As drawings.
- Sealing material: Tightly rammed mineral wool.
- Method: Completely fill gaps with sealant and finish neatly.
- Requirements: Prevent insect ingress.

40D      SEALING AROUND SERVICES

- Service: Waste pipes.
- Location: As drawings.
- Sealing material: Tightly rammed mineral wool.
- Method: Completely fill gaps with sealant and finish neatly.
- Requirements: Prevent insect ingress.

40E      SEALING AROUND SERVICES

- Service: Electrical cabling and fittings.
- Location: As drawings.
- Sealing material: Tightly rammed mineral wool.
- Method: Completely fill gaps with sealant and finish neatly.
- Requirements: Prevent insect ingress.



40F      SEALING AROUND SERVICES

- Service: Soil vent pipes.
- Location: As drawings.
- Sealing material: Tightly rammed mineral wool.
- Method: Completely fill gaps with sealant and finish neatly.
- Requirements: Prevent insect ingress.



Q

Paving/Planting/Fencing/Site furniture



Q10

Kerbs/ edgings/ channels/ paving accessories



## Q10 Kerbs/ edgings/ channels/ paving accessories

### 10A PRECAST CONCRETE KERBS

- To BS EN 1340.
- Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
- Recycled content: Contractor's choice.
- Designations: To match existing.
- Size (width x height x length): To match existing.
- Special shapes: None.
- Finish: To match existing.
- Colour: To match existing.
- Joints: Tooled mortar.
- Accessories: None.

### 10B PRECAST CONCRETE EDGINGS

- To BS EN 1340.
- Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
- Recycled content: Contractor's choice.
- Designations: To match existing.
- Size (width x height x length): To match existing.
- Special shapes: None.
- Finish: To match existing.
- Colour: To match existing.
- Joints: Dry, 2 mm gap..
- Accessories: None.

### 40 LAYING KERBS, EDGINGS AND CHANNELS

- Cutting: Neat and accurate and without spalling. Form neat junctions.
- Bedding and backing of units: Either of the following: Bedded on mortar laid on hardened concrete base. Bedding mortar allowed to set and units secured with a continuous haunching of concrete.
  - Bedded on fresh concrete races to BS 7533-6, secured with backing concrete cast monolithically with concrete race.
- Concrete for foundations and haunching:
  - Standard: To BS 8500-2.
  - Designated mix: Not less than GEN0 or Standard mix ST1 or better, low workability.
- Mortar bedding: 1:3 cement:sand as section Z21.
  - Bed thickness: 12-40 mm.

### 45 ACCURACY

- Deviations (maximum):
  - Level:  $\pm 6$  mm.
  - Horizontal and vertical alignment: 3 mm in 3 m.





50      TOOLED MORTAR JOINTS

- Jointing: Ends of units buttered with bedding mortar as laying proceeds. Joints completely filled and tooled to a neat flush profile.
  - Joint width: 6 mm.

60      SEALANT MOVEMENT JOINTS

- Joint filler: Compressible cellular rubber or plastics, built in as work proceeds, extending through haunching and foundation and positioned to support correct depth of sealant.
- Joint width: 10 mm.
- Sealant: Contractor's choice.
  - Colour: Colour match to kerbs .
- Sealant application: As section Z22.

80      REGULARITY OF PAVED SURFACES

- Maximum undulation of (non-tactile) paving surface: 3 mm.
  - Method of measurement: Under a 1 m straight edge placed anywhere on the surface (where appropriate in relation to the geometry of the surface).
- Difference in level between adjacent units (maximum):
  - Joints flush with the surface: Twice the joint width (with 5 mm max difference in level).
  - Recessed, filled joints: 2 mm.
    - Recess depth (maximum): 5 mm.
  - Unfilled joints: 2 mm.
- Sudden irregularities: Not permitted.



Q20

Granular sub-bases to roads/ pavings



## Q20 Granular sub-bases to roads/ pavings

### 10 THICKNESSES OF SUB-BASES

- Thicknesses: As specified in the relevant paving section.

### 20 HERBICIDES

- Type: Contractor's choice.
- Application: To subgrade of Drive paving.

### 30 EXCAVATION AND COMPACTION OF SUBGRADES

- Final excavation to formation level: Carry out immediately before compaction of subgrade.
- Soft spots and voids: Give notice.
- Old drainage and service trenches: Excavate to remove soft or degraded material, then backfill with specified granular sub-base material and compact.
- Wet conditions: Do not excavate or compact when the subgrade may be damaged or destabilized.
- Compaction: Thoroughly, by roller or other suitable means, adequate to resist subsidence or deformation of the subgrade during construction and of the completed roads/ pavings when in use. Take particular care to compact fully at intrusions, perimeters and where local excavation and backfilling has taken place.

### 40 SUB-BASES

- Granular material: Of a known suitability for use in sub-bases, free from ice, harmful matter and excessive dust or clay, well graded, all pieces less than 75 mm in any direction, and selected from one of the following:
  - Crushed rock (other than argillaceous rock) or quarry waste.
  - Crushed concrete, crushed brick or tile, free from plaster, timber and metal.
  - Gravel or hoggin with not more clay content than is required to bind the material together, and with no large lumps of clay.
  - Natural sand or gravel.

### 45 LAYING AND COMPACTING SUB-BASES

- Subgrade: Not frozen and free from loose soil, rubbish and standing water.
- Structures, membranes and buried services: Ensure stability and avoid damage.
- General: Spread and level in layers.
- Compaction:
  - Timing: As soon as possible after laying.
  - Method: By roller or other suitable means, adequate to resist subsidence or deformation of the sub-base during construction and of the completed paving when in use. Take particular care to compact fully at intrusions, perimeters and where local excavation and backfilling has taken place.

### 50 ACCURACY

- Permissible deviation from required levels, falls and cambers (maximum):
  - Subgrade:  $\pm 20$  mm.
  - Sub-base:  $\pm 12$  mm.

### 60 SURFACES TO RECEIVE SAND BEDDING FOR PAVING

- Blind surface: As necessary before compaction to ensure that surface is tight and dense enough to prevent laying course sand being lost into it during construction or use.
- Material: Sand or PFA.



70      PROTECTION

- Sub-bases: As soon as practicable, cover with subsequent layers, specified elsewhere.
- Subgrades and sub-bases: Prevent degradation by construction traffic, construction operations and inclement weather.



Q24

Interlocking brick/ block roads/ pavings



## Q24 Interlocking brick/ block roads/ pavings

### 10 CONVENTIONAL CONCRETE BLOCK PAVING TO DRIVEWAY

- Granular sub-base: Contractor's choice.
  - Compacted thickness: To match or exceed existing and adjacent.
- Laying course:
  - Material: In accordance with BS 7533-3.  
Category: II.
  - Nominal thickness after final compaction: 50 mm.
- Blocks: To BS EN 1338.
  - Manufacturer: Contractor's choice.  
Product reference: Contractor's choice.
  - Requirements: Freeze/ thaw resistance class BS EN 1338: 1 o to match existing.
  - Size: to match existing.
  - Special blocks: None.
  - Colour/ Finish: to match existing.
  - Recycled content: Contractor's choice.
- Jointing:
  - Material: In accordance with BS 7533-3.
  - Joint width: 2-5 mm.
- Setting out:
  - Bond: to match existing.
  - Features: to match existing.
- Accessories: None.

### 25 SAMPLES

- General: Before placing orders submit samples of concrete blocks/ pavers, that are representative of colour and appearance.

### 35 LAYING GENERALLY

- Standard: In accordance with BS 7533-3.
- Laying blocks/ pavers/ setts: Commence from an edge restraint. Vibrate to produce a thoroughly interlocked paving of even overall appearance with regular sand filled joints and accurate to line, level and profile.
- Cutting blocks/ pavers: Neatly and accurately without spalling to give neat junctions at edge restraints and changes in bond.
- Colour banding: Select blocks/ pavers vertically from at least 3 separate packs in rotation to avoid colour banding.

### 40 REGULARITY OF PAVED SURFACES

- Maximum variation in gap under a 3 m straight edge placed anywhere on the surface (where appropriate in relation to the geometry of the surface):
  - Precast concrete paving blocks and clay pavers for flexible pavements: 10 mm.
- Difference in level between adjacent paving units (maximum): 2 mm.
- Sudden irregularities: Not permitted.



Q28

Topsoil and soil ameliorants





## Q28 Topsoil and soil ameliorants

### 10 PREPARATION OF UNDISTURBED TOPSOIL

- General: Prepare as necessary for subsequent cultivation operations.
- Hard ground: Break up thoroughly.
- Ground covered with turf or a thick sward: Plough or dig over to full depth of topsoil.

### 25 SANITIZED AND STABILIZED COMPOSTED MATERIALS CERTIFIED TO PAS 100

- Standard: In accordance with PAS 100.
- Type: Sanitized and stabilized compost.
- Horticultural parameters:
  - pH (1:5 water extract): 7.0-8.7.
  - Electrical conductivity (maximum, 1:5 water extract): 200 mS/m.
  - Moisture content (m/m of fresh weight): 35-55%.
  - Organic matter (minimum): 25%.
  - Grading (air dried samples): 99% passing 25 mm screen, and 90% a 10 mm screen mesh aperture.
  - Carbon:Nitrogen ratio (maximum): 20:1.
- Texture: Friable.
- Objectionable odour: None.
- Quality Compost Protocol certification: Not required.
- Timing: Apply prior to cultivation.

### 35 PLANTING INTO TOPSOIL

- Grass seed:
  - Mixture: to match existing lawn area.
  - Application rate: 15-25 g/m<sup>2</sup>.
- Turf:
  - Supplier: Turfgrass Growers Association (TGA) member, to TGA quality standards.
  - Seed mixture: 35% Chewings fescue, 35% Slender red fescue, 20% Smooth stalked meadow grass, 10% Brown top bentarea.
  - Properties of soil used for turf production: Peat-free, well drained sandy loam.
- Trees, shrubs, climbers:
  - Standard: The relevant parts of BS 3936.
  - Species: As plant schedule or as specified by Client.
  - Origin/ Provenance: Contractor's choice.

### 40 FINISHED LEVELS OF TOPSOIL AFTER SETTLEMENT

- Above adjoining paving or kerbs: 30 mm.
- Within the root spread of existing trees: Unchanged.
- Below dpc of adjoining buildings: Not less than 150 mm.
- Shrub areas: Higher than adjoining grass areas by 30 mm.
- Within root spread of existing trees: Unchanged.
- Adjoining soil areas. Marry in.



45A     DOCUMENTATION FOR PLANTING

- Timing: Submit at handover.
- Contents:
  - Record of source for all soil components.
  - Record drawings showing the location and depth of all soils.
- Supplier's declaration of compliance: With BS 3936.

45B     DOCUMENTATION FOR SEEDING

- Timing: Submit at handover.
- Contents:
  - Record of source for all soil components.
  - Record drawings showing the location and depth of all soils.
- Supplier's declaration of compliance: With BS 3882.



Q40  
Fencing



## Q40 Fencing

### FENCING

#### 20A CLOSE BOARDED FENCING

- Standard: To BS 1722-5.
- Height: to match existing.
- Boards/ rails: to match existing.
- Posts: to match existing.
  - Setting: to match existing.
- Accessories: none.
- Conformity: Submit manufacturer's and installer's certificates, to BS 1722-5.

#### 60 INSTALLATION GENERALLY

- Expertise: By an experienced fencing contractor.
- Alignment: Straight lines or smoothly flowing curves.
- Tops of posts: Following profile of the ground.
- Setting posts: Rigid, plumb and to specified depth, or greater where necessary to ensure adequate support.
- Fixings: All components securely fixed.

#### 70 SETTING POSTS IN CONCRETE

- Standard: To BS 8500-2.
- Mix: Designated concrete not less than GEN1 or Standard prescribed concrete not less than ST2.
- Alternative mix for small quantities: 50 kg Portland cement to 150 kg fine aggregate to 250 kg 20 mm nominal maximum size coarse aggregate, medium workability.
- Admixtures: Do not use.
- Holes: Excavate neatly and with vertical sides.
- Filling: Unless specified otherwise position post/ strut and fill hole with concrete to not less than half the depth, well rammed as filling proceeds and consolidated.
- Backfilling of holes not completely filled with concrete: Excavated material, well rammed and consolidated.

#### 85 SITE CUTTING OF WOOD

- General: Kept to a minimum.
- Below or near ground level: Cutting prohibited.
- Treatment of surfaces exposed by minor cutting and drilling: Two flood coats of solution recommended for the purpose by main treatment solution manufacturer.

#### 90 MAKING GOOD GALVANIZED SURFACES

- Treatment of minor damage (including on fasteners and fittings): Low melting point zinc alloy repair rods or powders made for this purpose, or at least two coats of zinc-rich paint to BS 4652.
- Thickness: Apply sufficient material to provide a zinc coating at least equal in thickness to the original layer.



## R Disposal systems



R10

Rainwater drainage systems



## R10 Rainwater drainage systems

### 16 PVC-U GUTTERS

- Standard: To BS EN 607 and BS EN 1462, Kitemark certified.
- Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
- Recycled content: Contractor's choice.
- Profile: to match existing.
- Colour: to match existing.
- Accessories: Leaf guards and Stop ends.
- Fixing: PVC-U clips at 600 mm centres.

### 35 PVC-U PIPEWORK

- Standard: To BS EN 12200-1, Kitemark certified.
- Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
- Recycled content: Contractor's choice.
- Sections: to match existing.
- Nominal sizes: to match existing.
- Colour: to match existing.
- Accessories: Rainwater heads and Rainwater shoes.
- Fixing: PVC-U clips at 1200 mm centres.

### 50 INSTALLATION GENERALLY

- Discharge of rainwater: Complete, and without leakage or noise nuisance.
- Components: Obtain from same manufacturer for each type of pipework and guttering.
- Allowance for thermal and building movement: Provide and maintain clearance as fixing and jointing proceeds.
- Fixings and fasteners: As section Z20.

### 60 GUTTERS LAID TO FALL

- Setting out: To true line and even gradient to prevent ponding or backfall. Position high points of gutters as close as practical to the roof and low points not more than 50 mm below the roof.
- Joints: Watertight.
- Roofing underlay: Dressed into gutter.

### 65 GUTTERS LAID LEVEL

- Setting out: Level and as close as practical to roof.
- Joints: Watertight.
- Roofing underlay: Dressed into gutter.

### 70 PIPEWORK

- Fixing: Securely, plumb and/ or true to line with additional supports as necessary to support pipe collars, particularly at changes in direction.
- Cut ends of pipes and gutters: Clean and square with burrs and swarf removed.





R11

Above ground foul drainage systems



## R11 Above ground foul drainage systems

### 11 PLASTICS BRANCH PIPEWORK

- Materials and standards: Plastics to BS 5255, BS EN 1451-1, BS EN 1455-1 or BS EN 1566-1, Kitemark certified
- Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
- Colour: Contractor's choice.
- Jointing: Solvent welded.
- Fixing: Plastics brackets at 500 mm centres.
- Accessories: Access fittings.

### 21 PVC-U SOIL/ VENT PIPEWORK AND WC BRANCHES

- Standard:
  - To BS EN 1329-1, Kitemark certified; or
  - To BS 4514, Kitemark certified.
- Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
- Colour: Contractor's choice.
- Jointing: Solvent welded.
- Fixing: Galvanized steel brackets at 1800 mm centres.
- Accessories:
  - Access fittings;
  - Air admittance valves;
  - Wire balloons; and
  - As drawings.

### 45 AIR ADMITTANCE VALVES

- Standard: To BS EN 12380 or Agrément certified.
- Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
- Position: Vertical.
- Unheated locations: Fit manufacturer's insulating cover.

### 50 INSTALLATION GENERALLY

- Standards: To BS EN 12056-1, BS EN 12056-2 (including National Annexes NA-NG) and BS EN 12056-5.
- Drainage from appliances: Quick, quiet and complete, without blockage, crossflow, backfall, leakage, odours, noise nuisance or risk to health.
- Components: From same manufacturer for each type of pipework.
- Access: Provide access fittings in convenient locations to permit cleaning and testing of pipework.
- Thermal and building movement: Provide and maintain clearance as fixing and jointing proceeds.
- Fixings: Allow the pipe to slide.
  - Finish: Plated, sherardized, galvanized or other nonferrous.
  - Compatibility: Suitable for the purpose, material being fixed and substrate.



60      PIPEWORK

- Fixing: Securely plumb and/ or true to line. Fix lengths of discharge stack pipes at or just below socket collar or coupling.
  - Additional supports: Provide as necessary at junctions and changes in direction.
- Cut ends of pipes: Clean and square with burrs and swarf removed.

70      PIPEWORK TEST

- Preparation: Temporarily seal open ends of pipework using plugs.
- Testing: Connect a 'U' tube water gauge and pump air into pipework until gauge registers 38 mm.
- Required performance: Allow a period for temperature stabilisation, after which the pressure of 38 mm is to be maintained without loss for at least 3 minutes.



R12

Below ground drainage systems



## R12 Below ground drainage systems

### 2 EXISTING DRAINS

- Setting out: Before starting work, check levels and positions of existing drains, inspection chambers and manholes against drawings. Report discrepancies.

### 11 CLAY PIPELINES

- Pipes, bends and junctions: Vitrified clay to BS EN 295-1, with flexible joints, Kitemark certified.
  - Manufacturer: Contractor's choice .
  - Product reference: Contractor's choice .
- Strength: FN 40 .
- Sizes: DN 100 .
- Type of subsoil: Clay, sandy clay - firm .
- Bedding class: F .
- Warning marker tape: Not required .

### 19 EXCAVATING PIPE TRENCHES

- Trench from bottom up to 300 mm above crown of pipe: With vertical sides.
  - Width: As small as practicable but not less than external diameter of pipe plus 300 mm.
- Type of subsoil: Where the type of subsoil at the level of the crown of the pipe differs from that stated for the type of pipeline, give notice.
- Timing: Excavate to formation immediately before laying beds or pipes.
- Mud, rock projections, boulders and hard spots: Remove. Replace with bedding material, well consolidated.
- Local soft spots: Harden by tamping in bedding material.

### 21 BEDDING AND JOINTING

- Laying pipes: To true line and regular gradient on even bed for full length of barrel with sockets (if any) facing up the gradient.
- Jointing: Lubricate. Leave gaps at ends of spigots to allow for movement.

### 25 CLASS F GRANULAR BEDDING

- Granular material: To Water Industry Specification WIS 4-08-02 (as amended by WIS 4-08-02A, 2008).
- Bedding: Compacted granular material.
  - Thickness: 100 mm.
- Laying pipes: Scoop out locally at couplings and sockets and lay pipes digging slightly into bed and resting uniformly on their barrels. Adjust to line and gradient.
- Backfilling: After initial testing, backfill to 150 mm above crown of pipe with a protective cushion of selected fill, free from vegetable matter, rubbish and frozen soil and material retained on a 40 mm sieve. Thoroughly hand compact in 100 mm layers.



37      CLASS Y CONCRETE SURROUND FOR SHALLOW PIPES UNDER BUILDINGS

- Locations: Where crown of pipe is less than 300 mm below underside of slab.
- Timing: Excavate trench after hardcore has been laid and compacted.
- Concrete blinding: 25 mm thick, over full width of trench.
- Temporary pipe support: Folding wedges of compressible board, pipe inverts 100 mm (minimum) above blinding.
- Concrete pipe surround: Same mix as slab and cast integrally with slab. Extend length to within 150 mm of nearest flexible joint.

41      TRENCHES LESS THAN 1 M FROM FOUNDATIONS

- Class Z concrete surround: Provide in locations where bottom of trench is lower than bottom of foundation.
  - Top of concrete: Higher than bottom of foundation.

44      BENDS AT BASE OF SOIL STACKS

- Bends: 90° nominal rest bend with a minimum radius of 200 mm to centreline of the pipe.
- Height of invert of horizontal drain at base of stack below centreline of lowest branch pipe (minimum): 450 mm.
- Stabilizing bends: Bed in concrete without impairing flexibility of couplings.

54A      ACCESS POINTS - SURFACE WATER DRAINAGE

- Standard: To BS 4660 and Kitemark certified, to BS EN 13589-1, or Agrément certified.
- Manufacturer: Contractor's choice .
- Nominal diameter: 100mm .
- Bases:
  - Product reference: Contractor's choice .
- Raising pieces:
  - Product reference: Contractor's choice .
  - Heights: As required .
- Access covers and frames:
  - Product reference: Contractor's choice .
  - Loading grades to BS EN 124: A15 .

54B      ACCESS POINTS - FOUL DRAINAGE

- Standard: To BS 4660 and Kitemark certified, to BS EN 13589-1, or Agrément certified.
- Manufacturer: Contractor's choice .
- Nominal diameter: 100mm .
- Bases:
  - Product reference: Contractor's choice .
- Raising pieces:
  - Product reference: Contractor's choice .
  - Heights: As required .
- Access covers and frames:
  - Product reference: Contractor's choice .
  - Loading grades to BS EN 124: A15 .

58      INSTALLATION OF FITTINGS

- Appearance: Square with and tightly jointed to adjacent construction as appropriate.
- Bedding and surround of fittings, traps, etc: Concrete, 150 mm thick.
- Permissible deviation in level of gullies: +0 to -10mm.

#### 61 BRICK MANHOLES AND INSPECTION CHAMBERS

- Bases: Plain in situ concrete, 150 mm thick.
- Brickwork: As section F10
  - Frogs: Facing upwards.
- Steps: Galvanized ferrous .
  - Standard: To BS EN 13101.
  - Fixing: Bed in joints to chambers over 900 mm deep at 300 mm vertical centres staggered 300 mm horizontally, with top step not more than 450 mm below top of cover.
- Channels, branches and benching: Conventional, clay .
- Cover slabs: Concrete.
  - Thickness: 150 mm .
  - Openings: To suit required access covers.
  - Reinforcement: BS 4449 ribbed bar, 10 mm diameter, strength grade B500B .
- Access covers and frames: Cast iron.

#### 69 CONVENTIONAL CHANNELS, BRANCHES AND BENCHING

- Main channel: Bedded solid in 1:3 cement:sand mortar, branches connected to main channel at half channel level, so that discharge flows smoothly in direction of main flow.
- Benching: Concrete rising vertically from main channel to a height not lower than soffit of outlet pipe, then sloping upwards at 10% to walls, and with dense smooth uniform finish.

#### 74 SEALED ACCESS FITTINGS, BRANCHES AND BENCHING

- Sealed access fitting: DN 100 .
  - Standard: Clay to BS EN 295-1 and Kitemark certified .
- Manufacturer: Contractor's choice .
  - Product reference: Contractor's choice .
- Sizes and integral branches: To suit each manhole.
- Bedding: 1:3 cement:sand mortar.
- Benching: Concrete, with 10% fall from manhole walls to component rim, and with dense smooth uniform finish.

#### 79 CAST IRON ACCESS COVERS AND SEATING

- Covers: Grey iron or ductile iron to BS EN 124.
- Manufacturer: Contractor's choice .
- Types: A15 .
- Seating:
  - Brickwork: As section F10 .
- Bedding and haunching to frame: Solid, in 1:3 cement:sand mortar, square with joints in surrounding finishes. Cut back top of haunching to 30 mm below top of cover.

#### 84 TESTING AND INSPECTION GENERALLY

- Obstructions and debris: Remove. Check that the installation is clear before testing.

#### 85 INITIAL TESTING OF PIPELINES

- Before testing:
  - Cement mortar jointing: Leave 24 h.
  - Solvent welded pipelines: Leave 1 h.
- Timing: Before surround and backfilling .
- Method: Block open ends of pipelines to be tested and pressurise. Air test short lengths to BS EN 1610





88      FINAL TESTING OF DRAINS

- Before testing:
  - Cement mortar jointing: Leave 24 h.
  - Solvent welded pipelines: Leave 1 h.
- Standard: In accordance with Building Regulations Approved Document H1 .
- Method: Contractor's choice .

89      WATER TESTING OF MANHOLES AND INSPECTION CHAMBERS

- Timing: Before backfilling.
- Standard:
  - Exfiltration: To BS EN 1610, water testing (method W).
  - Infiltration: No identifiable flow of water penetrating the chamber.

91      BACKFILLING TO PIPELINES GENERALLY

- Backfill from top of surround or protective cushion: Material excavated from trench, compacted in 300 mm layers. Do not use heavy compactors before there is 600 mm of material over pipes.

94      BACKFILLING UNDER ROADS AND PAVINGS

- Backfill from top of specified surround or protective cushion up to formation level: Well graded gravel or hardcore passing a 75 mm sieve, well compacted in 150 mm layers.

97      CLEANING

- General: Flush out the whole installation and remove silt and debris immediately before handing over.



S  
Piped supply systems



S90

Hot and cold water supply systems - domestic



## S90 Hot and cold water supply systems – domestic

### GENERAL

#### 10      MAINS COLD WATER SUPPLY GENERALLY CONNECT TO EXISTING SYSTEM

- Estimated daily consumption: As existing.
- Position of incoming mains water supply: As existing.
- Pipelines: To match existing.
  - Accessories: To match existing.
- Valves: To match existing.
- Insulation: Mineral fibre.
- Sanitary appliances: As drawings subject to Client requirements and and confirmation.
- Controls: Submit design and cost proposals.
- Accessories: Water leak detection and alarm system, as section W58.
- Completion:
  - Flushing and filling;
  - System disinfection;
  - Testing;
  - Commissioning;
  - Testing service pipelines;
  - Documentation; and
  - Labels.

11      STORAGE COLD WATER SUPPLY GENERALLY CONNECT TO EXISTING SYSTEM

- Estimated daily consumption: As existing.
- Storage capacity: As existing.
- Drinking water outlets: Not required.
- Position of mains water supply: As existing.
- Storage cistern: As existing.
- Pipelines: To match existing.
  - Accessories: Not required.
- Valves: To match existing.
- Insulation: Mineral fibre.
- Sanitary appliances:
  - Baths, as N13;
  - Shower units, as N13;
  - Urinals and cisterns, as N13;
  - Wash basins, as N13; and
  - WC pans and flushing arrangements, as N13.
- Control: Flush control devices.
- Accessories: Water leak detection and alarm system, as section W58.
- Completion:
  - Flushing and filling;
  - System disinfection;
  - Testing;
  - Commissioning;
  - Testing service pipelines;
  - Documentation; and
  - Labels.



12      INSTANTANEOUS HOT WATER SUPPLY GENERALLY CONNECT TO EXISTING SYSTEM

- Position of water heater: As existing.
- Instantaneous water heater: As existing.
- Outlets: To match existing.
- Capacity: As existing.
- Control: To match existing.
- Pipelines: To match existing.
  - Accessories: Not required.
- Valves: To match existing.
- Insulation: Mineral fibre.
- Sanitary appliances:
  - Baths, as N13;
  - Shower units, as N13; and
  - Wash basins, as N13.
- Accessories: To match existing.
- Completion:
  - Flushing and filling;
  - System disinfection;
  - Testing;
  - Commissioning;
  - Testing service pipelines;
  - Documentation; and
  - Labels.

SYSTEM PERFORMANCE

20      DESIGN WATER SUPPLY GENERALLY (HOT & COLD)

- Design: Complete the design of the hot and cold water supply system.
- Standard: To BS EN 806-2, BS 8558 and in accordance with HSE publication 'The control of legionella bacteria in water systems. Approved code of practice and guidance'.
- Proposals: Submit drawings (showing equipment positions and pipeline routes), technical information, calculations and manufacturers' literature.

34      INSTANTANEOUS SHOWER UNITS, ELECTRIC SUBJECT TO CLIENT CONSULTATION AND APPROVAL

- Standard: To BS EN 60335-2-35, BEAB approved.
- Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
- Rating: 9.6 kW.
- Flow rate: 9 L/ min. at 37°C at 3 bar.
- Accessories: Flexible shower set .



50      COPPER PIPELINES FOR GENERAL USE

- Standard: To BS EN 1057, Kitemark certified.
- Temper: Half hard R250.
- Finish: Plain.
  - Colour: Natural.
- Wall thickness (nominal):
  - OD 6, 8, 10 and 12 mm: 0.6 mm.
  - OD 15 mm: 0.7 mm.
  - OD 22 and 28 mm: 0.9 mm.
  - OD 35 and 42 mm: 1.2 mm.
- Jointing:
  - Chromium plated: Type A compression fittings to BS EN 1254-2, chromium plated.
  - Plain: Integral lead free solder ring capillary fittings to BS EN 1254-1, Kitemark certified.
  - Plastics coated: Type A compression fittings to BS EN 1254-2.
- Connections to appliances and equipment: Select from:
  - Compression fittings: To BS EN 1254-2, Kitemark certified.
  - Fittings with threaded ends: To BS EN 1254-4.
- Supports: One piece copper spacer clips.

54      WARNING/ OVERFLOW PIPES TO CISTERNS

- Material: PVC-U.
- Jointing: Solvent welded.
- Minimum OD: Greater than inlet pipe OD and at least 22 mm.

55      INSULATION TO PIPELINES GENERALLY

- Material: Contractor's choice.
- Function: Protection from freezing.
- Thermal conductivity: 0.035 W/m-K.
- Emissivity: High.
- Thickness (minimum): To BS 5422, Tables 19 and 20 and in accordance with 'TIMSA guidance for achieving compliance with Part L of the Building Regulations', Table 6.1.1.
- Fire performance: Class 1 spread of flame when tested to BS 476-7.

56      MASKING PLATES

- Locations: All visible penetrations through walls, floors and ceilings.
- Type: Split.
- Material: Plastic.
- Finish: White.
- Fixing: Snapfit.

59      THERMOSTATS GENERALLY

- Standards: To BS EN 60730-2-9 and BS EN 61058-2-5.
- Type: Strap-on.
- Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.





60 VALVES GENERALLY

- Types: Approved for the purpose by local water supply undertaker and of appropriate pressure and/ or temperature ratings.
- Control of valves: Fit with handwheels for isolation and lockshields for isolation and regulation of circuits or equipment.

61 BALL VALVES GENERALLY

- Standard: To BS EN 331.

62 DRAINING TAPS GENERALLY

- Standard: Copper alloy to BS 2879, Type 1, hose connection pattern, Kitemark certified.

65 STOP VALVES AND DRAW-OFF TAPS, ABOVE GROUND

- Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.

67 THERMOSTATIC MIXING VALVES GENERALLY SUBJECT TO CLIENT APPROVAL

- Manufacturer: Submit proposals.
  - Product reference: Submit proposals.

68 FLUSH CONTROL DEVICES GENERALLY

- Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
- Type: Dual flush.
- Operation: Syphonic.

EXECUTION

70 INSTALLATION GENERALLY

- Installation: To BS EN 806-4.
- Performance: Free from leaks and the audible effects of expansion, vibration and water hammer.
- Fixing of equipment, components and accessories: Fix securely, parallel or perpendicular to the structure of the building.
- Preparation: Immediately before installing tanks and cisterns on a floor or platform, clear the surface completely of debris and projections.
- Corrosion resistance: In locations where moisture is present or may occur, provide corrosion resistant fittings/ fixings and avoid contact between dissimilar metals by use of suitable washers, gaskets, etc.

72 INSTALLING WARNING/ OVERFLOW PIPES TO CISTERNS

- Difference (minimum) between normal water level and overflow level:
  - Cold water storage cisterns: The greater of 32 mm or the bore of warning pipe.
  - Feed and expansion cisterns: Sufficient to allow 20% increase in the volume of water in the tank, plus 25 mm.
- Vertical distance (minimum) of water supply inlet above overflow level: Bore of warning pipe.
- Fall (minimum): 1 in 10.
- Installation: Support to prevent sagging. Terminate pipes separately in prominent positions with turned down ends. Turn down within the cistern. Terminate 50 mm below normal water level.
- Insulation: Insulate within the building where the pipe is in an uninsulated space and subject to freezing.



#### 79      PIPELINES INSTALLATION

- Appearance: Install pipes straight, and parallel or perpendicular to walls, floors, ceilings, and other building elements.
- Pipelines finish: Smooth, consistent bore, clean, free from defects, e.g. external scratching, toolmarks, distortion, wrinkling, and cracks.
- Concealment: Generally conceal pipelines within floor, ceiling and/ or roof voids.
- Access: Locate runs to facilitate installation of equipment, accessories and insulation and allow access for maintenance.
- Arrangement of hot and cold pipelines: Run hot pipelines above cold where routed together horizontally. Do not run cold water pipelines near to heating pipelines or through heated spaces.
- Electrical equipment: Install pipelines clear of electrical equipment. Do not run pipelines through electrical enclosures or above switch gear distribution boards or the like.
- Insulation allowance: Provide space around pipelines to fit insulation without compression.

#### 80      PIPELINES FIXING

- Fixing: Secure and neat.
- Joints, bends and offsets: Minimize.
- Pipeline support: Prevent strain, e.g. from the operation of taps or valves.
- Drains and vents: Fix pipelines to falls. Fit draining taps at low points and vents at high points.
- Thermal expansion and contraction: Allow for thermal movement of pipelines. Isolate from structure. Prevent noise or abrasion of pipelines caused by movement. Sleeve pipelines passing through walls, floors or other building elements.
- Dirt, insects or rodents: Prevent ingress.

#### 82      SUPPORTS FOR PIPELINES

- Spacing for copper pipelines: Fix securely and true to line at the following maximum centres:
  - 15 and 22 mm pipe OD: 1200 mm horizontal, 1800 mm vertical.
  - 28 and 35 mm pipe OD: 1800 mm horizontal, 2400 mm vertical.
  - 42 and 54 mm pipe OD: 2400 mm horizontal, 3000 mm vertical.
- Spacing for thermoplastics pipelines: Fix securely and true to line at the following maximum centres:
  - Up to 16 mm pipe OD: 300 mm horizontal, 500 mm vertical.
  - 17-25 mm pipe OD: 500 mm horizontal, 800 mm vertical.
  - 26-32 mm pipe OD: 800 mm horizontal, 1000 mm vertical.
- Additional supports: Locate within 150 mm of connections, junctions and changes of direction.

#### 83      PIPELINE SPACING

- Clearance (minimum) to face of wall-fixed pipes or pipe insulation:
  - From floor: 150 mm.
  - From ceiling: 50 mm.
  - From wall: 15 mm.
  - Between pipes: 25 mm.
  - From electrical conduit, cables, etc: 150 mm.

#### 84A JOINTS IN PIPELINES

- Copper pipelines:
  - Preparation: Cut pipes square. Remove burrs.
  - Joints: Neat, clean and fully sealed. Install pipe ends into joint fittings to full depth.
  - Bends: Do not use formed bends on exposed pipework, except for small offsets. Form changes of direction with radius fittings.
  - Adaptors for connecting dissimilar materials: Purpose designed.
  - Substrate and plastics pipes and fittings: Do not damage, e.g. by heat when forming soldered joints.
  - Flux residue: Clean off.
- 

#### 86 INSTALLING INSULATION TO PIPELINES

- Standard: In accordance with BS 5970.
- Cold water pipelines: Insulate in unheated spaces. Insulate potable cold water pipelines.
- Hot water pipelines: Insulate, except for short lengths in prominent positions next to appliances.
- External supply pipelines exposed to air or less than 750 mm below finished ground level: Insulate.
- Appearance: Fix securely and neatly. Make continuous over fittings and at supports. Leave no gaps. Locate split on 'blind' side of pipeline.
- Timing: Fit insulation after testing.

#### 88 INSTALLING VALVES

- Isolation and regulation valves: Provide on equipment and subcircuits.
- Access: Locate where valves can be readily operated and maintained and next to equipment which is to be isolated.
- Connection to pipework: Fit with joints to suit the pipe material.

#### COMPLETION

#### 90 FLUSHING AND FILLING

- Standard: To BS EN 806-4.

#### 91 SYSTEM DISINFECTION

- Disinfection: To BS EN 806-4.

#### 92 TESTING

- Standard: To BS EN 806-4.
  - Notice (minimum): 3 days.
- Preparation: Secure and clean pipework and equipment. Fit cistern and tank covers.
- Leak testing: Start boiler and run the system until all parts are at normal operating temperatures and then allow to cool to cold condition for a period of 3 h.
- Pressure testing: At both hot and cold conditions joints, fittings and components must be free from leaks and signs of physical distress when tested for at least 1 h as follows:
  - Systems fed directly from the mains, and systems downstream of a booster pump: Apply a test pressure equal to 1.5 times the maximum pressure to which the installation or relevant part is designed to be subjected in operation.
  - Systems fed from storage: Apply a test pressure equal to the pressure produced when the storage cistern is filled to its normal maximum operating level.
  - Inaccessible or buried pipelines: Carry out hydraulic pressure test to twice the working pressure.



93      COMMISSIONING

- Standard: To BS EN 806-4.
- Equipment: Check and adjust operation of equipment, controls and safety devices.
- Outlets: Check operation of outlets for satisfactory rate of flow and temperature.

94      TESTING SERVICE PIPELINES

- Test method: Disconnect from the mains, fill with potable water, exclude air, and apply at least twice the working pressure for 1 h.
- Test criterion: No leakage.

95      DOCUMENTATION

- Manufacturers' operating and maintenance instructions: Submit for equipment and controls.
- System operating and maintenance instructions: Submit for the system as a whole giving optimum settings for controls.
- Record drawings: Submit drawings showing the location of circuits and operating controls.

97      LABELS

- Valve labels: Provide labels on isolating and regulating valves on primary circuits, stating their function.



I

## Mechanical heating/Cooling/Refrigeration systems



T90

Heating systems - domestic



## T90 Heating systems - domestic

### GENERAL

#### 10A HEATING SYSTEM GENRALLY CONNECT TO EXISTING

- System: To match existing.
- Heat sources: Existing.
- Flues: Existing.
- Feed and expansion cisterns: Not required.
- Pipelines: Copper.
- Valves: Thermostatic radiator valves.
- Circulating pumps: Submit design and cost proposals.
- Insulation: Mineral fibre.
- Heat emitters: Radiators.
- System control: Thermostats and Submit design and cost proposals.
- Completion:
  - Documentation;
  - Labels;
  - Setting to work and commissioning; and
  - Testing.

### SYSTEM PERFORMANCE

#### 20 DESIGN

- Design: Complete the design of the heating system.
- Proposals: Submit drawings, technical information, calculations and manufacturers' literature.

#### 21 BASIC DESIGN TEMPERATURES

- Room temperatures: Design the system to provide the following temperatures for the specified air change rates and an external air temperature of  $-4^{\circ}\text{C}$ :
  - Living rooms:  $21^{\circ}\text{C}$ , for 1.5 air changes per hour.
  - Dining rooms:  $21^{\circ}\text{C}$ , for 1.5 air changes per hour.
  - Bedsitting rooms:  $21^{\circ}\text{C}$ , for 1.5 air changes per hour.
  - Bedrooms:  $18^{\circ}\text{C}$ , for 1 air changes per hour.
  - Halls and landings:  $18^{\circ}\text{C}$ , for 1.5 air changes per hour.
  - Kitchens:  $18^{\circ}\text{C}$ , for 2 air changes per hour.
  - Bathrooms:  $22^{\circ}\text{C}$ , for 2 air changes per hour.
  - Toilets:  $18^{\circ}\text{C}$ , for 2 air changes per hour.
- Submittals: Submit heat loss calculations for each room using the HEVACOMP suite of programmes.

#### 22A THERMAL INSULATION OF BUILDING FABRIC

- Heat loss calculations: Base on the following maximum U-values:  
Based on Building Regulations Approved Document L1A 2013
  - Floors:  $0.25\text{W}/(\text{m}^2\text{K})$ .
  - Walls:  $0.30\text{W}/(\text{m}^2\text{K})$ .
  - Windows:  $2.00\text{W}/(\text{m}^2\text{K})$ .
  - Roofs:  $0.20\text{W}/(\text{m}^2\text{K})$ .



26 HEATING AND HOT WATER SUPPLY SYSTEM CAPACITY

- Output of total heating surface area in a space: As near as practicable to, but not less than, the design heat loss for that space.
- Boiler output (minimum): Total calculated heat loss, including emission from the system pipelines, and sufficient to meet the hot water supply requirements.
- Calculation allowances:
  - Usage: 10%.
  - Exposure: 10%.

PRODUCTS

48 COPPER PIPELINES FOR GENERAL USE GENERALLY

- Standard: To BS EN 1057, Kitemark certified.
- Temper: Half hard R250.
- Wall thickness (nominal):
  - OD 6, 8, 10 and 12 mm: 0.6 mm.
  - OD 15 mm: 0.7 mm.
  - OD 22 and 28 mm: 0.9 mm.
  - OD 35 and 42 mm: 1.2 mm.
- Microbore temper: Soft coil R220.
- Microbore wall thickness (nominal):
  - OD 6 and 8 mm: 0.6 mm.
  - OD 10 mm: 0.7 mm.
- Jointing: Integral lead-free solder ring capillary fittings.
  - Standard: To BS EN 1254-1, Kitemark certified.
- Connections to appliances and equipment: Select from:
  - Compression fittings: To BS EN 1254-2, Kitemark certified.
  - Fittings with threaded ends: To BS EN 1254-4.
- Supports: Compatible with pipe material .

51 VENT PIPELINES GENERALLY

- Materials: To BS EN 1057.
- Jointing:
  - Compression: To BS EN 1254-2.
  - Capillary: To BS EN 1254-1.

53 VALVES GENERALLY

- Types: Approved for the purpose by local water supply undertaker and of appropriate pressure and temperature ratings.
- Control of valves: Fit with handwheels for isolation and lockshields for isolation and regulation of circuits or equipment.

54 MANUAL RADIATOR VALVES GENERALLY

- Standard: To BS 2767.
- Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
- Material: Copper alloy.
- Finish: To match existing.
- Operation: Lockshield on return.





56      THERMOSTATIC RADIATOR VALVES GENERALLY

- Standard: To BS EN 215 and capable of providing isolation.
- Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
- Features: Vertical mounting and Submit proposals.
- Finish: To match existing.
- Lockshield valves: To BS 2767 with matching finish fitted to return side of radiator.

58      INSULATION TO PIPELINES TO CONTROL HEAT LOSS GENERALLY

- Material: Contractor's choice.
- Thermal conductivity: 0.035 W/m-K.
- Emissivity: Low.
- Thickness (minimum): To BS 5422 tables 19 and 20 and in accordance with 'TIMSA guidance for achieving compliance with Part L of the Building Regulations', table 6.1.1.
- Fire performance: Class 0 spread of flame when tested to BS 476-7.

61      RADIATORS GENERALLY TO MATCH EXISTING

- Standard: To BS EN 442-1, -2, -3.
- Type: To match existing/Submit proposals.
- Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
- Material: To match existing.
- Finish: To match existing.
- Sizes: Submit proposals.

62      TOWEL WARMER RADIATORS TO BATHROOM

- Type: Multi-tubular frame and Tubular frame with integral panel radiator.
- Manufacturer: Submit proposals.
  - Product reference: Submit proposals.
- Finish: Chrome plated.
- Sizes: To provide design temperatures keeping within limiting dimensions shown on drawings.

65      THERMOSTATS GENERALLY

- Standards: To BS EN 60730-1, -2-7, -2-8, -2-9, -2-14 and BS EN 61058-1, -2-5. BEAB approved.
- Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.

EXECUTION

73      INSTALLATION GENERALLY

- Standard: To BS EN 14336.
- Performance: Free from leaks and the audible effects of expansion, vibration and water hammer.
- Fixing of equipment, components and accessories: Fix securely, parallel or perpendicular to the structure of the building.
- Preparation: Immediately before installing tanks and cisterns on a floor or platform, clear the surface completely of debris and projections.
- Corrosion resistance: In locations where moisture is present or may occur, use corrosion resistant fittings/ fixings and avoid contact between dissimilar metals by use of suitable washers, gaskets, etc.



#### 75 PIPELINE INSTALLATION

- Appearance: Install pipes straight, and parallel or perpendicular to walls, floors, ceilings, and other building elements.
- Pipelines finish: Smooth, consistent bore, clean, free from defects, e.g. external scratching, toolmarks, distortion, wrinkling, and cracks.
- Concealment: Generally conceal pipelines within floor, ceiling and/ or roof voids.
- Access: Locate runs to facilitate installation of equipment, accessories and insulation and allow access for maintenance.
- Arrangement of hot and cold pipelines: Run hot pipelines above cold where routed together horizontally. Do not run cold water pipelines near to heating pipelines or through heated spaces.
- Electrical equipment: Install pipelines clear of electrical equipment. Do not run pipelines through electrical enclosures or above switch gear distribution boards or the like.
- Insulation allowance: Provide space around pipelines to fit insulation without compression.

#### 76 PIPELINE FIXING

- Fixing: Secure and neat.
- Joints, bends and offsets: Minimize.
- Pipeline support: Prevent strain, e.g. from the operation of taps or valves.
- Drains and vents: Fix pipelines to falls. Fit draining taps at low points and vents at high points.
- Thermal expansion and contraction: Allow for thermal movement of pipelines. Isolate from structure. Prevent noise or abrasion of pipelines caused by movement. Sleeve pipelines passing through walls, floors or other building elements.
- Dirt, insects or rodents: Prevent ingress.

#### 77 JOINTS IN COPPER PIPELINES

- Preparation: Cut pipes square. Remove burrs.
- Joints: Neat, clean and fully sealed. Install pipe ends into joint fittings to full depth.
- Bends: Do not use formed bends on exposed pipework, except for small offsets. Form changes of direction with radius fittings.
- Adaptors for connecting dissimilar materials: Purpose designed.
- Substrate and plastics pipes and fittings: Do not damage, e.g. by heat when forming soldered joints.
- Flux residue: Clean off.

#### COMPLETION

#### 90 TESTING

- Standard: To BS EN 14336.
- Notice (minimum): 3 days.
- Preparation: Secure and clean pipework and equipment. Fit cistern/ tank covers.
- Leak testing: Start boiler and run the system until parts are at normal operating temperatures and then allow to cool to cold condition for a period of 3 h.
- Pressure testing: At both hot and cold conditions joints, fittings and components must be free from leaks and signs of physical distress when tested for at least 1 h as follows:
  - Systems fed directly from the mains and systems downstream of a booster pump: Apply a test pressure equal to 1.5 times the maximum pressure to which the installation or relevant part is designed to be subjected in operation.
  - Systems fed from storage: Apply a test pressure equal to the pressure produced when the storage cistern is filled to its normal maximum operating level.
  - Inaccessible or buried pipelines: Carry out hydraulic pressure test to twice the working pressure.



91      SETTING TO WORK AND COMMISSIONING

- Equipment: Check and adjust operation of equipment, controls and safety devices.
- Outlets: Check operation of outlets for satisfactory rate of flow and temperature.

92      DOCUMENTATION

- Manufacturers' operating and maintenance instructions: Submit for equipment and controls.
- System operating and maintenance instructions: Submit for the system as a whole giving optimum settings for controls.
- Record drawings: Submit drawings showing the location of circuits and operating controls.

93      LABELS

- Valve labels: Provide labels on isolating and regulating valves on primary circuits, stating their function.



U

Ventilation/Air conditioning systems



U90

General ventilation - domestic



## U90 General ventilation - domestic

### GENERAL

#### 14 LOCAL EXTRACT FAN VENTILATION TO BATHROOM

- Room extract terminals: On the fan and Room extract grilles.
- Fan units: Ventilation fan units and Submit design and cost proposals.
- Air ductwork: Flexible ductwork and Submit design and cost proposals.
- Air ductwork accessories:
  - Condensation traps;
  - Non-return valves;
  - Silencers;
  - Site applied insulation; and
  - Submit design and cost proposals.
- External exhaust air terminals: Roof slope exhaust terminals and Submit design and cost proposals.
- Controls:
  - Pull cord switches with overrun device;
  - Sensors, humidity; and
  - Submit design and cost proposals.
- Completion:
  - Commissioning;
  - Operation and maintenance; and
  - Submit design and cost proposals.

### SYSTEM PERFORMANCE

#### 20 DESIGN LOCAL EXTRACT FAN VENTILATION

- Design: Complete the design of the ventilation system.
- Ventilation rate: 25l/s.
- Proposals: Submit drawings (showing equipment positions and ductwork routes), technical information, calculations and manufacturers' literature.

### PRODUCTS

#### 31 EXTERNAL AIR INTAKE GRILLES GENERALLY

- Type: Plastics, with gravity anti-backdraught flap and Submit proposals.
- Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
- Size: Submit proposals.
- Colour: Submit proposals.
- Finish: Submit proposals.
- Accessories:
  - External acoustic hood;
  - Fly screens;
  - Set of 3 filters per terminal for balancing; and
  - Submit proposals.



- 33      ROOF SLOPE AIR INTAKE TERMINALS GENERALLY
- Manufacturer: Contractor's choice.
    - Product reference: Contractor's choice.
  - Accessories:
    - Cowl with integral bird guard;
    - Universal extension sleeve;
    - Weathering collar; and
    - Submit proposals.
- 48      CONDENSATION TRAPS GENERALLY INTEGRAL TO UNITS
- Manufacturer: Contractor's choice.
    - Product reference: Contractor's choice.
  - Outlet: Submit proposals.
- 49      DAMPERS, AUTOMATIC GENERALLY INTEGRAL TO UNITS
- Manufacturer: Contractor's choice.
    - Product reference: Contractor's choice.
- 53      IN-LINE FILTER UNITS GENERALLY INTEGRAL TO UNITS
- Manufacturer: Contractor's choice.
    - Product reference: Contractor's choice.
- 54      NON-RETURN VALVES GENERALLY INTEGRAL TO UNITS
- Manufacturer: Contractor's choice.
    - Product reference: Contractor's choice.
- 56      SILENCERS GENERALLY INTEGRAL TO UNITS
- Manufacturer: Contractor's choice.
    - Product reference: Contractor's choice.
- 58      SITE APPLIED INSULATION TO DUCTWORK GENERALLY
- Manufacturer: Contractor's choice.
    - Product reference: Contractor's choice.
  - Material: mineral.
  - Thickness (minimum): 25 mm.
  - Thermal conductivity (maximum): 0.04 W/m-K.
- 64      ROOF SLOPE EXHAUST TERMINALS GENERALLY
- Manufacturer: Contractor's choice.
    - Product reference: Contractor's choice.
  - Accessories:
    - Cowl with integral bird guard;
    - Universal extension sleeve;
    - Weathering collar; and
    - Submit proposals.



66 FAN CONTROLLER UNITS GENERALLY INTEGRAL TO UNITS

- Manufacturer reference: Contractor's choice.
  - Product reference: Contractor's choice.
- Functions:
  - Basic on/ off/ variable fan speed;
  - Operation linked to light switch;
  - Timer or programmer; and
  - Submit proposals.

68 PULL CORD SWITCHES WITH OVERRUN DEVICE GENERALLY

- Standard: To BS EN 61058-2-1.
- Manufacturer reference: Contractor's choice.
  - Product reference: Contractor's choice.

71 SENSORS, HUMIDITY GENERALLY INTEGRAL TO UNITS

- Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
- Functions: Submit proposals.

EXECUTION

85 FLEXIBLE DUCTWORK

- Installation: Fully extend without overstretching.
- Support: Form smooth flowing curves without kinking, sagging or slumping.

87 INSTALLING CONDENSATE DRAINS

- Access: Provide for cleaning.
- Outlet: Connect to outside by 22 mm outside diameter PVC-U pipeline laid to fall and discharging through eaves soffit board.

88 SITE APPLIED INSULATION

- Location: Fit insulation to ductwork in unheated spaces.
- Installation: Fix securely. Leave no gaps. Make continuous.

COMPLETION

90 COMMISSIONING

- Ventilation system: Balance airflow using methods recommended by the system manufacturer.
  - Performance: As manufacturers recommendations.
- Operation: Examine ductwork for leakage. Test the operation of fans, equipment, controls and sensors. Verify correct operation. Submit report.

91 OPERATION AND MAINTENANCE

- Operating and maintenance instructions: Submit copies of manufacturers' operating and maintenance instructions for equipment and controls.
- Tools: Supply tools for operation, maintenance and cleaning purposes, including keys for valves and vents.





V

Electrical supply/power/lighting systems



V90

Electrical systems - domestic



## V90 Electrical systems – domestic

### GENERAL

#### 5 LOW VOLTAGE SUPPLY

- Nature of current: Alternating.
- Phase: Single phase.
- Voltage: 230 V.
- Source: Existing and Submit design and cost proposals.
- Metering: Through existing meter system.
- Accessories: None.

#### 7 LV SWITCHGEAR

- Distribution board: Submit design and cost proposals.

#### 8 LV CABLING GENERALLY CONNECT TO EXISTING

- Cable: Submit design and cost proposals .

#### 9 CONTAINMENT GENERALLY

- Type:
  - PVC conduit;
  - PVC trunking; and
  - Submit design and cost proposals .
- Appearance: Submit design and cost proposals .
- Rewireable installation: Submit design and cost proposals .

#### 20 GENERAL DESIGN

- Standards: To BS 7671 and the requirements of the electricity distributor.
- Design: Complete the design and detailing of the electrical installation.
- Design information: Submit calculations, manufacturer's literature and drawings showing equipment positions and routes.

#### 21 DESIGN OF LOW VOLTAGE INCOMING SUPPLY

- Capacity: Determine the anticipated maximum demand of the installation.
- Establishing the supply: Manage and liaise with the electricity distributor to establish an incoming electricity supply.
- Electricity supplier: As existing .
- Liaise with the electricity supplier, complete an application for supply of electricity and manage installation of metering equipment.
- Incoming earthing arrangement: Establish with the electricity distributor.
- Location: Coordinate the location of the incoming supply and establish the spatial requirements for the electricity distributor's equipment and metering.

#### 23 LV DISTRIBUTION SYSTEM DESIGN

- Design: To cater for the complete working building.
- Spare capacity: submit design proposals .
- Equipment: Provide electrical supplies to equipment requiring power.



24A     GENERAL LIGHTING SYSTEM DESIGN

- Purpose: Adequate illumination and comfort.
- Design: To SLL 'Code for lighting'.
- Room: All.
  - Maintained average illuminance: As BS8995.
  - Controls: As drawings.
- Maintenance: Submit proposals for the maintenance/ relamping regime.

25     EXTERNAL LIGHTING SYSTEM DESIGN

- Purpose: Adequate illumination for security observation and visibility.
- Design: To SLL 'Code for lighting' and CIBSE Lighting Guide 6.
- Area: Garden and driveway.
  - Maintained average illuminance: submit design proposals.
  - Minimum illuminance at any point: submit design proposals.
  - Uniformity: submit design proposals.

26     DESIGN AND LIGHTING CALCULATIONS

- Design: Complete the design of the following lighting systems:
  - General;
  - Emergency; and
  - External.
- Proposals: Submit drawings, technical information, calculations and manufacturers' literature.
- Lighting calculations:
  - Type: Computer generated point calculations.
- Submit the following:
  - Luminaire layout drawings.
  - Luminaire photometric data including flux fraction ratios and polar intensity curves.
  - Lamp technical information.
  - Maintenance factor calculations, including proposals for luminaire maintenance and lamp replacement.
  - Isolux contour plots for the working plane.
  - Schedule of design and calculated maintained average illuminance values.
  - Schedule of design and calculated uniformity values.

27     SMALL POWER SYSTEM DESIGN

- Purpose: To provide power supply.
- Small power outlets: Provide to serve the building and its equipment.
- Room: All.
  - Outlets: See drawings.
- Fixed equipment: Provide supplies.

PRODUCTS

30     PRODUCTS GENERALLY

- Standard: To BS 7671.
- CE Marking: Required.



- 32      DISTRIBUTION BOARDS AND CONSUMER UNITS
- Standards: To BS EN 60439-3 and ASTA certified.
  - Manufacturer: Contractor's choice.
    - Product reference: Contractor's choice.
  - Number of ways: Determine.
    - Spare capacity: Submit proposals.
- 35      CONDUIT
- Standard: To BS EN 61386-1.
  - Type: Suitable for location and use.
- 38      PVC CONDUIT AND FITTINGS GENERALLY
- Standards: To BS 4607-5 or BS EN 61386-1 and BS EN 61386-21.
  - Manufacturer: Contractor's choice.
    - Product reference: Contractor's choice.
- 39      CABLES
- Standard: To BS 7671.
  - Approval: British Approvals Service for Cables (BASEC) certified.
  - Cable sizes not stated: Submit proposals and calculations.
- 40      PROTECTIVE CONDUCTORS
- Type: Cable conductors with yellow/ green sheath.
- 41      ELECTRICAL ACCESSORIES GENERALLY
- Standard: To BS 5733.
    - Switches: To BS EN 60669-1.
  - Manufacturer: Contractor's choice .
    - Product reference: Contractor's choice .
  - Finish: To match existing .
  - Mounting: To match existing .
- 45      LUMINAIRES GENERALLY
- Standards: To BS EN 60598-1 and BS EN 55015.
    - Approval: Kitemark certified.
  - Manufacturer: Contractor's choice.
    - Product reference: Contractor's choice.
  - Mounting: Submit proposals.
  - Lamp: Submit proposals.
    - Wattage: Submit proposals.



#### 47 LAMPS GENERALLY

- Standards:
  - Compact fluorescent lamps: To BS EN 60901 and BS EN 61199.
  - High pressure mercury lamps: To BS EN 60188 and BS EN 62035.
  - High pressure sodium lamps: To BS EN 62035.
  - Light emitting diodes (LEDs): To BS EN 62031.
  - Metal halide lamps: To BS EN 62035.
  - Tubular fluorescent lamps:
    - Single-capped lamps: To BS EN 60901 and BS EN 61199.
    - Double-capped lamps: To BS EN 60081 and BS EN 61195.
  - Tungsten halogen lamps: To BS EN 60432-2 and BS EN 60357.
- Manufacturer: As recommended by luminaire manufacturer.
  - Lamps of the same type and rating: Same manufacturer.

#### 50 EXTERNAL LUMINAIRES GENERALLY

- Standards: To BS EN 60598-1 and BS EN 55015.
- Approval: Kitemark certified.
- Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
- Mounting: Wall.
- Ingress protection to BS EN 60529: Submit proposals.
- Lamp: High pressure discharge lamp.
  - Wattage: Submit proposals.
  - Colour temperature: Submit proposals.
- Spill lighting control: submit design proposals.

### EXECUTION

#### 60 GENERAL EXECUTION

- Standard: To BS 7671.

#### 63 INSTALLING CONDUIT AND FITTINGS

- Fixing: Fix securely. Fix boxes independently of conduit.
- Drainage outlets: Locate at lowest points in conduit installed externally, and where condensation may occur.
- Location: Position vertically and horizontally in line with equipment served, and parallel with building lines. Locate where accessible.
- Jointing:
  - Number of joints: Minimize.
  - Lengths of conduit: Maximize.
  - Cut ends: Remove burrs, and plug during building works.
  - Movement joints in structure: Manufactured expansion coupling.
  - Threaded steel conduits: Tightly screw to ensure electrical continuity, with no thread showing.
  - Conduit connections to boxes and items of equipment, other than those with threaded entries: Earthing coupling/ male brass bush and protective conductor.
- Changes of direction: Site machine-formed bends, junction boxes and proprietary components. Do not use elbows or tees. Alternatively, use conduit boxes.
  - Connections to boxes, trunking, equipment and accessories: Screwed couplings, adaptors, connectors and glands, with rubber bushes at open ends.



66      CABLE ROUTES

- Cables generally: Conceal wherever possible.
  - Concealed cable runs to wall switches and outlets: Align vertically with the accessory.
- Exposed cable runs: Submit proposals.
  - Orientation: Straight, vertical and/ or horizontal and parallel to walls.
- Distance from other services running parallel: 150 mm minimum.
  - Heating pipes: Position cables below.

68      INSTALLING ELECTRICAL ACCESSORIES AND EQUIPMENT

- Location: As drawing.
- Arrangement: Coordinate with other wall or ceiling mounted equipment.
- Positioning: Accurately and square to vertical and horizontal axes.
- Alignment: Align adjacent accessories on the same vertical or horizontal axis.
- Mounting: Submit proposals.
- Mounting heights (finished floor level to underside of equipment or accessory): As drawings .

70      INSTALLING FINAL CONNECTIONS

- Size: Determine.
- Cable: Heat resisting white flex.
- Length: Allow for equipment removal and maintenance.

72      INSTALLING LUMINAIRES

- Location: As drawings.
- Supports: Adequate for weight of luminaire.
- Locations: Submit proposals.

74      LABELLING

- Identification and notices:
  - Standards: To BS 5499-5.
  - Equipment: Label when a voltage exceeding 230 V is present.
- Distribution boards and consumer units: Card circuit chart within a reusable clear plastic cover. Fit to the inside of each unit. Include typed information identifying the outgoing circuit references, their device rating, cable type, size, circuit location and details. Label each outgoing way corresponding to the circuit chart.
- Sub-main cables: Label at both ends, with proprietary cable marker sleeves.

78      FINAL FIX

- Accessory faceplates, luminaires and other equipment: Fit after completion of building painting.

79      CLEANING

- Electrical equipment: Clean immediately before handover.
- Equipment not supplied but installed under the electrical works: Clean immediately before handover.



## COMPLETION

### 85 INSPECTION AND TESTING GENERALLY

- Standard: To BS 7671.
- Notice before commencing tests (minimum): 24 hours.
- Labels and signs: Fix securely before system is tested.
- Inspection and completion certificates: Submit.
  - Number of copies: 1.





W

Communications/Security/Control systems



W90

Communications and security systems - domestic



## W90 Communications and security systems - domestic

### GENERAL

#### 2 TELEVISION DISTRIBUTION SYSTEM

- System manufacturer: Submit proposals.
  - Approval: Member of the CAI.
- Incoming service: As existing.
- Distribution:
  - Type: Submit design and cost proposals.
- Equipment interconnectivity: Coaxial cable.
- Audio-video sources for distribution: submit design proposals.
- Outlets: Required.

#### 8 ACCESS CONTROL SYSTEM

- System manufacturer: Submit proposals.
  - Approval: BSIA.
- Equipment interconnectivity: Low voltage cable.
- Method of access control: Radio controlled and manual switch activated.
  - Token type: Submit design and cost proposals.
- Door release: Automatic.
- System features: Submit design and cost proposals.

### SYSTEM PERFORMANCE

#### 20 DESIGN REQUIREMENTS

- Design: Complete the design of the communications and security systems.
- Proposals: Submit drawings showing equipment positions and routes, technical information, calculations and manufacturers literature.

#### 21 DESIGN OF TELEVISION DISTRIBUTION SYSTEMS

- Standards: To BS EN 60728-1, BS EN 60728-1-1, BS EN 60728-1-2 and BS EN 60728-11.
- Broadcast format: Submit proposals.
- Signal type: Consultative Committee for International Radio (CCIR) PAL Colour, 625 scan lines/ frame, 25 frames/s.
- Design margin:  $\pm 3$  dB for signals throughout the UHF distribution system.
- Head end input signal (minimum mV): 8 dB below effective noise figure.



23 DESIGN OF ACCESS CONTROL SYSTEM

- Standards: To BS EN 60839-11-1 and IEC 60839-11-2.  
Access control points: Generally.
  - Grade classification to BS EN 60839-11-1: Submit proposals.
  - Environmental classification to BS EN 60839-11-1: Submit proposals.
- Audio communication: Two way.
- Video communication: One way.
- Integration with other alarm systems:
  - Objectives: Not required.
  - Systems to be integrated: None.

PRODUCTS

31 COAXIAL CABLES

- Standards:
  - General: In accordance with CAI cable benchmarking scheme.
  - Indoor drop: To BS EN 50117-1 and BS EN 50117-2-1.
  - Outdoor drop: To BS EN 50117-1 and BS EN 50117-2-2.

33 TELEVISION OUTLETS

- Standards: To BS 5733 and BS EN 60669-1.
- Approvals: Kitemark certified.
- Faceplate configuration: Single coaxial outlet.
- Connection: Push fit.
- Finish: To match electrical accessories.

34 SMOKE ALARMS

- Standard: To BS EN 14604.
- Approvals: Kitemark certified.
- Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
- Local alarm: Audible indication integral within detectors.

35 CARBON MONOXIDE FIRE DETECTOR ALARMS

- Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
- Type: Electrochemical cell sensor.
- Local alarm: Audible indication integral within detectors.
- Power supply: Mains hard wired.
- Standby supply: Integral battery.

37 LOW VOLTAGE CABLE

- Standard:
  - PVC: To BS EN 50525-1 and -2-31.
  - LSZH: To BS EN 50525-1 and -3-41.
- Conductor size and number of cores: Submit proposals.
- Sheath: Contractor's choice.



56 PASSIVE INFRA RED DETECTORS

- Standard: To BS EN 50131-2-2.
- Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
- Power supply: From main control panel.

EXECUTION

70 INSTALLATION GENERALLY

- Standard: To BS 7671.
- General: Install cables neatly and securely. Conceal wherever possible. Protect against accidental damage, adverse environmental conditions, mechanical stress and deleterious substances.
  - Concealed cable runs to outlets: Align vertically with the accessory.
- Exposed cable runs: Submit proposals.
  - Orientation: Straight, vertical and/ or horizontal and parallel to walls.
- Distance from other services running parallel: 150 mm minimum.
  - Heating pipes: Position cables below.
- Timing: Do not start internal cabling until building enclosure provides permanently dry conditions.
- Jointing: At equipment and terminal fittings only.
- Cables passing through walls: Sleeve with conduit bushed at both ends.
- Cables running across ceiling joists: Fix to timber battens which are nailed to joists.
- Length of final connection: Sufficient for equipment removal and maintenance.

71 INSTALLING OUTLETS AND EQUIPMENT GENERALLY

- Location: Coordinate with other wall or ceiling mounted equipment.
- Positioning: Accurate and square to vertical and horizontal axes.
- Alignment: Align adjacent accessories on the same vertical or horizontal axis.
- Mounting heights (finished floor level to underside of equipment/ accessory): submit design proposals .

73 INSTALLING TELEVISION CABLING AND OUTLETS

- Standard: In accordance with CIA Code of Practice for the installation of aerials/ antennae and receiving equipment in the single dwelling unit
- Appearance: Concealed.
- Cable route: Submit proposals.
- Fixing: Proprietary clips.
- External wall entry: Slope downwards towards external wall, form drip loop or provide proprietary rain cover .
- Containment: Steel conduit.
- Outlet locations: As drawings.

74 INSTALLING SMOKE ALARMS

- Installation: In accordance with BS 5839-6.
  - Interlink individual smoke detectors.
- Location: Submit proposals.
- Environment at installation: Clean and dust free.
- Power supply: Dedicated circuit from main switchboard or consumer unit.



75      INSTALLING CARBON MONOXIDE ALARMS

- Standards: To BS EN 50291-1 and in accordance with BS EN 50292.
- Location: Garage.
- Environment at installation: Clean and dust free.

77      INSTALLING ACCESS CONTROL SYSTEMS

- Standards: To BS 7671 and BS EN 50133-1.
- Location of access controller: Radio controlled and adjacent to garage doors .
- Mounting heights: Submit proposals.
- Reader mounting: Surface mounted .

78      INSTALLING ACCESS CONTROL CABLES

- Appearance: Exposed .
- Route: Submit proposals.
- Jointing: At equipment terminals only.
- Device wiring: Individual radial circuit from control panel.
- Containment: Steel conduit .

COMPLETION

90      TELEVISION DISTRIBUTION SYSTEM TESTING AND COMMISSIONING

- Standard: To BS EN 60728-1 and BS EN 60728-1-2.
- Head end input: Reduce signal strength by 3 dB and demonstrate via inspection no impairment in signal quality at each outlet.
- Amplifier output: Reduce by 3 dB and demonstrate via inspection no impairment in signal quality at each outlet.

92      CARBON MONOXIDE ALARM TESTING AND COMMISSIONING

- Standby operation: Verify.
- Customer guidance: Submit guidance and advice to the user.

93      ACCESS CONTROL SYSTEM TESTING AND COMMISSIONING

- Standard: To BS EN 50133-1.
- Tokens to be supplied: 3 .
- System programming:
  - Set up tokens with holder information.
  - Set up access permissions.
  - Set up access times.
- Access points: Verify the correct operation of reader, and of release/ closure mechanism.

98      DOCUMENTATION

- Timing: Submit at completion.
- Contents:- Full technical description of each system installed.
  - Manufacturers' operating and maintenance instructions for fittings and apparatus.
  - Manufacturers' guarantees and warranties.
  - As-installed drawings showing circuits and their ratings and locations of fittings and apparatus.
  - List of normal consumable items.



Z

Building fabric reference specification



Z10

Purpose made joinery





## Z10 Purpose made joinery

### 10 FABRICATION

- Standard: To BS 1186-2.
- Sections: Accurate in profile and length, and free from twist and bowing. Formed out of solid unless shown otherwise.
  - Machined surfaces: Smooth and free from tearing, wooliness, chip bruising and other machining defects.
- Joints: Tight and close fitting.
- Assembled components: Rigid. Free from distortion.
- Screws: Provide pilot holes. Heads of countersunk screws sunk at least 2 mm below surfaces visible in completed work.
- Adhesives: Compatible with wood preservatives applied and end uses of timber.

### 20 CROSS SECTION DIMENSIONS OF TIMBER

- General: Dimensions on drawings are finished sizes.
- Maximum permitted deviations from finished sizes:
  - Softwood sections: To BS EN 1313-1.
  - Hardwood sections: To BS EN 1313-2.

### 30 PRESERVATIVE TREATED WOOD

- Cutting and machining: Completed as far as possible before treatment.
- Extensively processed timber: Retreat timber sawn lengthways, thickened, planed, ploughed, etc.
- Surfaces exposed by minor cutting and/ or drilling: Treat as recommended by main treatment solution manufacturer.

### 40 MOISTURE CONTENT

- Wood and wood based products: Maintained within range specified for the component during manufacture and storage.

### 50 FINISHING

- Surfaces: Smooth, even and suitable to receive finishes.
  - Arrises: Eased unless shown otherwise on drawings.
- End grain in external components: Sealed with primer or sealer as section M60 and allowed to dry before assembly.



Z11

Purpose made metalwork



## Z11 Purpose made metalwork

### 31 METAL PRODUCTS

- Grades of metals, section dimensions and properties: To the appropriate British Standards and suitable for the purpose.
- Fasteners: Generally, same metal as component, with matching coating and finish.

### 50 PREPARATION FOR APPLICATION OF COATINGS

- General: Fabrication complete, and fixing holes drilled before applying coatings.
- Paint, grease, flux, rust, burrs and sharp arrises: Removed.

### 51 FABRICATION GENERALLY

- Contact between dissimilar metals in components: Avoid.
- Finished components: Rigid and free from distortion, cracks, burrs and sharp arrises.
  - Moving parts: Free moving without binding.
- Corner junctions of identical sections: Mitre.
- Prefinished metals: Do not damage or alter appearance of finish.

### 52 COLD FORMED WORK

- Profiles: Accurate, with straight arrises.

### 53 WELDING AND BRAZING GENERALLY

- Surfaces to be joined: Clean thoroughly.
- Tack welds: Use only for temporary attachment.
- Joints: Fully bond parent and filler metal throughout with no inclusions, holes, porosity or cracks.
- Surfaces of materials that will be self-finished and visible in completed work: Protect from weld spatter.
- Flux residue, slag and weld spatter: Remove.

### 54 WELDING OF STEEL

- Method: Metal arc welding to BS EN 1011-1 and -2.

### 56 FINISHING WELDED AND BRAZED JOINTS VISIBLE IN COMPLETE WORK

- Butt joints: Smooth, and flush with adjacent surfaces.
- Fillet joints: Neat.
- Grinding: Grind smooth where indicated on drawings.

### 58 GALVANIZING

- Standard: To BS EN ISO 1461.
- Vent and drain holes:
  - Location: Submit proposals.
  - Sealing after galvanizing: Required. Submit proposals.



Z12

Preservative/ fire retardant treatment



## Z12 Preservative/ fire retardant treatment

### 10 TREATMENT APPLICATION

- Timing: After cutting and machining timber, and before assembling components.
- Processor: Licensed by manufacturer of specified treatment solution.
- Certification: For each batch of timber provide a certificate of assurance that treatment has been carried out as specified.

### 20 COMMODITY SPECIFICATIONS

- Standard: Current edition of the Wood Protection Association (WPA) publication 'Industrial wood preservation specification and practice'.

### 25 PRESERVATIVE TREATMENT SOLUTION STRENGTHS/ TREATMENT CYCLES

- General: Select to achieve specified service life and to suit treatability of specified wood species.

### 35 WATER-BASED ORGANIC PRESERVATIVE TREATMENT

- Solution:
  - Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
  - Application: High pressure impregnation.
- Moisture content of wood:
  - At time of treatment: Not more than 28%.
  - After treatment: Timber to be surface dry before use.

### 50 FIRE RETARDANT TREATMENT

- Solution type: Dry interior.
  - Manufacturer: Contractor's choice.
  - Product reference: Contractor's choice.
  - Application: Vacuum + pressure impregnation.
- Moisture content of wood:
  - At time of treatment: As specified for the timber/ component at time of fixing.
  - After treatment: Timber to be redried slowly at temperatures not exceeding 65°C to minimize distortion and degradation.

### 70 MAKING GOOD TO PROTECTION TREATMENT ON-SITE

- Fire retardant/ preservative solution: Compatible with off-site treatment.
- Application: In accordance with preservative manufacturer's recommendations.

### 80 RECYCLED TIMBER CONTAINING CREOSOTE OR CHROMIUM/ ARSENIC BASED PRESERVATIVE

- Usage: Not permitted.



Z20

Fixings and adhesives



## Z20 Fixings and adhesives

### 10      FIXINGS AND FASTENERS GENERALLY

- Integrity of supported components: Select types, sizes, quantities and spacings of fixings, fasteners and packings to retain supported components without distortion or loss of support.
- Components, substrates, fixings and fasteners of dissimilar metals: Isolate with washers or sleeves to avoid bimetallic corrosion.
- General usage: To recommendations of fastener manufacturers and/ or manufacturers of components, products or materials fixed and fixed to.
- Fixings: To be in straight lines, at regular centres.

### 25      FASTENER DURABILITY

- Materials: To have:
  - Bimetallic corrosion resistance appropriate to items being fixed.
  - Atmospheric corrosion resistance appropriate to fixing location.
- Appearance: Submit samples on request.

### 30      FIXINGS THROUGH FINISHES

- Penetration of fasteners and plugs into substrate: To achieve a secure fixing.

### 35      PACKINGS

- Materials: Noncompressible, corrosion proof.
- Area of packings: Sufficient to transfer loads.

### 40      CRAMP FIXINGS

- Fasteners: Fix cramps to frames with screws of same material as cramps.
- Fixings in masonry work: Fully bed in mortar.

### 50      PELLETED COUNTERSUNK SCREW FIXINGS

- Finished level of countersunk screw heads: Minimum 6 mm below timber surface.
- Pellets: Cut from matching timber, grain matched, glued in to full depth of hole.
- Finished level of pellets: Flush with surface.

### 55      PLUGGED COUNTERSUNK SCREW FIXING

- Finished level of countersunk screw heads: Minimum 6 mm below timber surface.
- Plugs: Glue in to full depth of hole.
- Finished level of plugs: Projecting above surface.

### 60      APPLYING ADHESIVES

- Surfaces: Clean. Regularity and texture to suit bonding and gap filling characteristics of adhesive.
- Support and clamping during setting: Provide as necessary. Do not mark surfaces of or distort components being fixed.
- Finished adhesive joints: Fully bonded. Free of surplus adhesive.



Z21  
Mortars





## Z21 Mortars

### 10 MORTAR MIXES

- Specification: Proportions and additional requirements for mortar materials are specified elsewhere.

### 20 SAND FOR SITE MADE CEMENT GAUGED MASONRY MORTARS

- Standard: To BS EN 13139.
- Grading: 0/2 (FP or MP).
  - Fines content where the proportion of sand is specified as a range (e.g. 1:1: 5-6):  
Lower proportion of sand: Use category 3 fines.  
Higher proportion of sand: Use category 2 fines.
- Sand for facework mortar: Maintain consistent colour and texture. Obtain from one source.

### 25 SAND FOR LIME:SAND MASONRY MORTARS

- Type: Sharp, well graded.
  - Quality, sampling and testing: To BS EN 13139.
  - Grading/ Source: As specified elsewhere.

### 30 READY-MIXED LIME:SAND FOR CEMENT GAUGED MASONRY MORTARS

- Standard: To BS EN 998-2.
- Lime: Nonhydraulic to BS EN 459-1.
  - Type: CL 90S.
- Pigments for coloured mortars: To BS EN 12878.

### 40 CEMENTS FOR MORTARS

- Cement: To BS EN 197-1 and CE marked.
  - Types: Portland cement, CEM I.  
Portland limestone cement, CEM II/A-LL.  
Portland slag cement, CEM II/B-S.  
Portland fly ash cement, CEM II/B-V.
  - Strength class: 32.5, 42.5 or 52.5.
- White cement: To BS EN 197-1 and CE marked.
  - Type: Portland cement, CEM I.
  - Strength class: 52.5.
- Sulfate resisting Portland cement:
  - Types: To BS EN 197-1 Sulfate resisting Portland cement, CEM I/SR and CE marked.  
To BS EN 197-1 fly ash cement, CEM II/B-V and CE marked.
  - Strength class: 32.5, 42.5 or 52.5.
- Masonry cement: To BS EN 413-1 and CE marked.
  - Class: MC 12.5.

### 50 ADMIXTURES FOR SITE MADE MORTARS

- Air entraining (plasticizing) admixtures: To BS EN 934-3 and compatible with other mortar constituents.
- Other admixtures: Submit proposals.
- Prohibited admixtures: Calcium chloride, ethylene glycol and any admixture containing calcium chloride.



60      MAKING MORTARS GENERALLY

- Batching: By volume. Use clean and accurate gauge boxes or buckets.
- Mix proportions: Based on dry sand. Allow for bulking of damp sand.
- Mixing: Mix materials thoroughly to uniform consistency, free from lumps.
  - Mortars containing air entraining admixtures: Mix mechanically. Do not overmix.
- Contamination: Prevent intermixing with other materials.

70      MAKING HYDRAULIC LIME:SAND MORTARS

- Mixing hydrated hydraulic lime:sand: Follow the lime manufacturer's recommendations for each stage of the mix.
  - Water quantity: Only sufficient to produce a workable mix.



Z22  
Sealants



## Z22 Sealants

### 31 JOINTS BETWEEN NEW AND EXISTING MASONRY WALLS

- Primer, backing strip, bond breaker: Types recommended by sealant manufacturer.

#### EXECUTION

### 61 SUITABILITY OF JOINTS

- Presealing checks:
  - Joint dimensions: Within limits specified for the sealant.
  - Substrate quality: Surfaces regular, undamaged and stable.
- Joints not fit to receive sealant: Submit proposals for rectification.

### 62 PREPARING JOINTS

- Surfaces to which sealant must adhere:
  - Remove temporary coatings, tapes, loosely adhering material, dust, oil, grease, surface water and contaminants that may affect bond.
  - Clean using materials and methods recommended by sealant manufacturer.
- Vulnerable surfaces adjacent to joints: Mask to prevent staining or smearing with primer or sealant.
- Backing strip and/ or bond breaker installation: Insert into joint to correct depth, without stretching or twisting, leaving no gaps.
- Protection: Keep joints clean and protect from damage until sealant is applied.

### 63 APPLYING SEALANTS

- Substrate: Dry (unless recommended otherwise) and unaffected by frost, ice or snow.
- Environmental conditions: Do not dry or raise temperature of joints by heating.
- Sealant application: Fill joints completely and neatly, ensuring firm adhesion to substrates.
- Sealant profiles:
  - Butt and lap joints: Slightly concave.
  - Fillet joints: Flat or slightly convex.
- Protection: Protect finished joints from contamination or damage until sealant has cured.



## Your U-value calculation...

**Celotex**  
Insulation Specialists

### U-value Calculation

Thank you for using the Celotex online U-value calculation service. You will find your U-value calculation on the following page.

If you require further help or advice on your U-value calculation and would like to speak with an advisor, please contact our Celotex Technical Centre on **01473 820850**. Lines are open Monday – Friday from 8.00am – 5.15pm.

### NEW PRODUCT: Celotex RS5000

Yet again, we have taken PIR to the next level with our latest innovation, Celotex RS5000. Successfully tested to meet the performance criteria of BR 135, RS5000 is the first PIR insulation suitable for rainscreen cladding applications above 18 metres in height\*.

Featuring Class O fire performance and a BRE A+ Green Guide rating, Celotex RS5000 is specifically designed to enhance the thermal performance of insulated facade systems.

The most recent addition to our leading '5000' series range, Celotex RS5000 features a super low lambda of 0.021 W/mK delivering better U-values and thinner solutions.

For full specification details, please view the website at [celotex.co.uk/newheights](http://celotex.co.uk/newheights)

\* For all buildings above 18 metres, please refer to the Rainscreen Cladding Compliance Guide detailing system requirements

### Insulating Britain

New Building Regulation changes have come into force April 2014 for England and July 2014 for Wales. Requiring further reductions for carbon emissions for domestic and non-domestic buildings, more than ever, compliance will require even higher levels of building fabric performance.

With outstanding levels of expertise, our technical consultants will provide all the help and advice you need to specify Celotex with confidence and help simplify compliance.

Make Celotex your next stop and visit [insulatingbritain.co.uk](http://insulatingbritain.co.uk)

### CPD

Why not register for the new Celotex CPD? With the new Part L Regulations now in force for England and Wales, our UK Building Regulation CPD showcases how you can achieve better U-values to meet the new Regulations with even thinner solutions.

Simply visit [celotex.co.uk/cpd-request](http://celotex.co.uk/cpd-request) to book your presentation.

### Celotex Energy Assessments

As experts in energy efficiency devoted to taking the hassle of meeting legislation away from the client, Celotex Energy Assessments offer a host of services including:

- SAP & Energy Performance Certificates
- SBEM
- Thermal Modelling (psi values)
- Green Deal Assessments
- BREEAM
- Code for Sustainable Homes

If you have any further questions or queries, please do not hesitate to get in contact on **0333 733 0850** or email [info@celotexea.co.uk](mailto:info@celotexea.co.uk)

Kind regards,

**Celotex**  
Insulation Specialists



### Reaching new heights

#### Building to above 18 metres?

Celotex can help with your specification with the new Rainscreen Cladding solution Celotex RS5000. We have a Compliance Guide detailing all you need to know for your specification above 18 metres.

Download now from [Celotex website](http://celotex.co.uk/newheights)  
[Rainscreen Cladding page](http://celotex.co.uk/newheights)

### The Celotex U-value App

Calculate U-values  
anywhere with our  
new mobile app

Available on the  
App Store



Download on the Apple App Store



## Project Information

Date 26 May 2015  
 Client Robert Cooper, RKC Design Project Rodmell Ave  
 54 Cokeham Lane Saltdean  
 Sompington  
 BN15 0AG

## Construction Type

Element : Pitched roof - 0 Ceiling - Insulation between & above joists 400mm Joist Spacing

Roof pitch : 30.0°

Ceiling - Insulation between && above joists 400mm Joist Spacing

Internal surface emissivity : High External surface emissivity : High

	Thickness (mm)	Thermal Conductivity (W/mK)	Thermal Resistance (m²K/W)	Pitch (°)	Bridge Details
Outside surface resistance	-	-	0.040	30.0°	
Tiling including batten space	-	-	0.000	30.0°	
Loft space	-	-	0.200		
Celotex FR5000 above joists	50.0	-	2.381		
Celotex FR5000 between joists @ 400 ctrs	150.0	-	7.143		11.7% Timber (150.0mm)
Polythene, 1000 gauge, VCL + Air Leakage Barrier	-	-	0.000		
Knauf Wallboard	12.5	-	0.066		
Inside surface resistance	-	-	0.100		

U-value = 0.13W/m²K

U-value, Combined Method : 0.128W/m²K (upper/lower limit 8.419 / 7.219m²K/W, dUf 0.0000, dUg 0.0000, dUp0.0000, dUr0.0000, dUrc0.0000)

(Correction for mechanical fasteners, Delta Uf = 0.000W/m²K)

(Correction for air gaps, Delta Ug = 0.000W/m²K)

(Correction for loft hatch (No loft hatch), Delta U = 0.000W/m²K)

(Based on the combined method for determining U-values of structures containing repeating thermal bridges)

## Project Information

Date 26 May 2015  
 Client Robert Cooper, RKC Design Project Rodmell Ave  
 54 Cokeham Lane Saltdean  
 Sompting  
 BN15 0AG

## Construction Type

Element : Suspended Ground floor - OGround Floor - Beam and Block - T&G Floating Floor

Ground Floor - Beam and Block - T&G Floating Floor

Internal surface emissivity	: High	External surface emissivity	: High	Thickness	Thermal Conductivity	Thermal Resistance	Pitch	Bridge Details
				(mm)	(W/mK)	(m <sup>2</sup> K/W)	(°)	
Inside surface				-	-	0.170		
T+G Chipboard Floating Floor - Glued				22.0	0.175	0.126		
Joints								
Polythene, 500 gauge separating layer				-	-	-		
Celotex FR5000				100.0	-	4.762		
Floor deck Beam and Block				-	-	0.083		
Void - ventilated				-	-	0.000		
Deck underside surface resistance						0.170		

## Ground Floor Details

Calculation method	: EN ISO 13370:2007		
P/A	: 0.532	Characteristic dimension, B'	: 3.759
Thermal conductivity of ground:	: 1.500 W/mK	Height of floor above ground, h:	: 0.225 m
Width of walls, w:	: 0.300 m	U-value of sub-floor walls, Uw:	: 1.700 W/m <sup>2</sup> K
Average wind speed, V:	: 5.000 m/s	Wind shielding factor, fw:	: 0.050
Ventilation opening area, E:	: 0.0015 m <sup>2</sup> /m	Subfloor ground resistance, Rs	: 0.170 m <sup>2</sup> K/W
Resistance of insulation on ground, Rg	: 0.000 m <sup>2</sup> K/W	External surface resistance, Rse	: 0.170 m <sup>2</sup> K/W
Floor type	: Suspended floor		
Deck resistance	: 0.083 m <sup>2</sup> K/W		
Description	: Beam and Block		
Edge insulation position	: None		

Perimeter Upstand Insulation: Celotex TB4000

As detailed in Accredited Construction Details, for all ground floors where a screed or concrete slab is above the insulation layer, a perimeter up-stand insulation with a minimum R Value of 0.75 m<sup>2</sup>K/W is required for the depth of the screed or concrete slab.

This is achieved with using a minimum thickness of 20mm Celotex TB4000.

U-value = 0.16 W/m<sup>2</sup>K

U-value, Combined Method : 0.158 W/m<sup>2</sup>K (upper/lower limit 5.311 / 5.311 m<sup>2</sup>K/W, dUf 0.0000, dUg 0.0000, dUp0.0000, dUr0.0000, dUrc0.0000)

(Correction for mechanical fasteners, Delta Uf = 0.000 W/m<sup>2</sup>K)

(Correction for air gaps, Delta Ug = 0.000 W/m<sup>2</sup>K)

Registered office: Lady Lane Industrial Estate, Hadleigh, Ipswich Suffolk IP7 6BA

## Project Information

Date 26 May 2015  
 Client Robert Cooper, RKC Design Project Rodmell Ave  
 54 Cokeham Lane Saltdean  
 Sompington  
 BN15 0AG

## Construction Type

Element : Wall - Partial Fill Cavity Wall - Block Inner - Block Outer

Partial Fill Cavity Wall - Block Inner - Block Outer

Internal surface emissivity : High External surface emissivity : High

Correction for mechanical fasteners :-

Alpha	: 0.8 per m	Thermal conductivity of fastener		: 17.00 W/mK
Fasteners per square metre	: 2.50 off	Fasteners cross-sectional area		: 23.40 mm²
	Thickness	Thermal	Thermal	Pitch
	(mm)	Conductivity	Resistance	Bridge Details
		(W/mK)	(m²K/W)	(°)
Outside surface resistance	-	-	0.040	
Render	20.0	0.556	0.036	
Celcon Standard (lambda = 0.15)	100.0	0.150	0.667	6.6% Mortar (100.0mm)
Cavity (low emissivity)	50.0	-	0.713	
Celotex CG5000	100.0	-	4.762	
Celcon Hi Seven (lambda = 0.19)	140.0	0.190	0.737	6.6% Mortar (140.0mm)
Inside surface resistance	-	-	0.130	

U-value = 0.15 W/m<sup>2</sup>K

U-value, Combined Method : 0.145 W/m<sup>2</sup>K (upper/lower limit 7.004 / 6.771 m<sup>2</sup>K/W, dUf 0.0036, dUg 0.0000, dUp 0.0000, dUr 0.0000, dUrc 0.0000)

(Correction for mechanical fasteners, Delta Uf = 0.004 W/m<sup>2</sup>K)

(Correction for air gaps, Delta Ug = 0.000 W/m<sup>2</sup>K)

(Based on the combined method for determining U-values of structures containing repeating thermal bridges)



## Project Information

Date 26 May 2015  
 Client Robert Cooper, RKC Design Project Rodmell Ave  
 54 Cokeham Lane Saltdean  
 Sompting  
 BN15 0AG

## Construction Type

Element : Wall - Partial Fill Cavity Wall - Block Inner - Brick Outer

Partial Fill Cavity Wall - Block Inner - Brick Outer

Internal surface emissivity : High External surface emissivity : High

Correction for mechanical fasteners :-

Alpha : 0.8 per m Thermal conductivity of fastener : 17.00 W/mK  
 Fasteners per square metre : 2.50 off Fasteners cross-sectional area : 23.40 mm<sup>2</sup>

	Thickness (mm)	Thermal Conductivity (W/mK)	Thermal Resistance (m <sup>2</sup> K/W)	Pitch Bridge Details (°)
Outside surface resistance	-	-	0.040	
Brickwork	103.0	0.770	0.134	17.2% Mortar (103.0mm)
Cavity (low emissivity)	50.0	-	0.713	
Celotex CG5000	100.0	-	4.762	
Celcon Hi Seven (lambda = 0.19)	140.0	0.190	0.737	6.6% Mortar (140.0mm)
Inside surface resistance	-	-	0.130	

U-value = 0.16 W/m<sup>2</sup>K

U-value, Combined Method : 0.156 W/m<sup>2</sup>K (upper/lower limit 6.470 / 6.369 m<sup>2</sup>K/W, dUf 0.0042, dUg 0.0000, dUp0.0000, dUr0.0000, dUrc0.0000)

(Correction for mechanical fasteners, Delta Uf = 0.004 W/m<sup>2</sup>K)

(Correction for air gaps, Delta Ug = 0.000 W/m<sup>2</sup>K)

(Based on the combined method for determining U-values of structures containing repeating thermal bridges)

## Project Information

Date 26 May 2015  
 Client Robert Cooper, RKC Design Project Rodmell Ave  
 54 Cokeham Lane Saltdean  
 Sompting  
 BN15 0AG

## Construction Type

Element : Wall - Partial Fill Cavity Wall - Wet Plaster - Block Inner - Block Outer

Partial Fill Cavity Wall - Wet Plaster - Block Inner - Block Outer

Internal surface emissivity : High External surface emissivity : High

Correction for mechanical fasteners :-

Alpha	: 0.8 per m	Thermal conductivity of fastener			: 17.00 W/mK
Fasteners per square metre	: 2.50 off	Fasteners cross-sectional area			: 23.40 mm²
	Thickness	Thermal	Thermal	Pitch	Bridge Details
	(mm)	Conductivity	Resistance	(°)	
		(W/mK)	(m²K/W)		
Outside surface resistance	-	-	0.040		
Render	20.0	0.556	0.036		
Celcon Standard (lambda = 0.15)	100.0	0.150	0.667		6.6% Mortar (100.0mm)
Cavity (low emissivity)	50.0	-	0.713		
Celotex CG5000	100.0	-	4.762		
Celcon Hi Seven (lambda = 0.19)	140.0	0.190	0.737		6.6% Mortar (140.0mm)
Plaster, lightweight	13.0	0.220	0.059		
Inside surface resistance	-	-	0.130		

U-value = 0.14 W/m<sup>2</sup>K

U-value, Combined Method : 0.144 W/m<sup>2</sup>K (upper/lower limit 7.063 / 6.830 m<sup>2</sup>K/W, dUf 0.0035, dUg 0.0000, dUp 0.0000, dUr 0.0000, dUrc 0.0000)

(Correction for mechanical fasteners, Delta Uf = 0.004 W/m<sup>2</sup>K)

(Correction for air gaps, Delta Ug = 0.000 W/m<sup>2</sup>K)

(Based on the combined method for determining U-values of structures containing repeating thermal bridges)

## Project Information

Date 26 May 2015  
 Client Robert Cooper, RKC Design Project Rodmell Ave  
 54 Cokeham Lane Saltdean  
 Sompting  
 BN15 0AG

## Construction Type

Element : Wall - O Timber Framed Wall - Tile Hanging - Insulation Between Inside Studs

Timber Framed Wall - Tile Hanging - Insulation Between & Inside Studs

Internal surface emissivity : High	External surface emissivity : High	Thickness (mm)	Thermal Conductivity (W/mK)	Thermal Resistance (m <sup>2</sup> K/W)	Pitch Bridge Details (°)
Outside surface resistance	-	-	-	0.040	
Tiles on battens	-	-	-	0.120	
Breather membrane	-	-	-	-	
Plywood	12.0	0.170	0.071		
Celotex FR5000 between timber studs	100.0	-	4.762		15.0% Timber (100.0mm)
Celotex PL4025 (25 + 12.5mm) inside timber studs.	37.5	-	1.202		
Board joints sealed as VCL + Air Leakage Barrier	-	-	0.000		
Plaster, lightweight skim	3.0	0.220	0.014		
Inside surface resistance	-	-	0.130		

U-value = 0.21W/m<sup>2</sup>K

U-value, Combined Method : 0.215W/m<sup>2</sup>K (upper/lower limit 5.050 / 4.254m<sup>2</sup>K/W, dUf 0.0000, dUg 0.0000, dUp0.0000, dUr0.0000, dUrc0.0000)

(Correction for mechanical fasteners, Delta Uf = 0.000W/m<sup>2</sup>K)

(Correction for air gaps, Delta Ug = 0.000W/m<sup>2</sup>K)

(Based on the combined method for determining U-values of structures containing repeating thermal bridges)

# CDM Action Plan

This is a Construction Phase Plan for the following project:  
2 Rodmell Avenue

**Your name/company:**

Penny Stonebank Darvey

**Your email address:**

robcooper2001@gmail.com

**Client Name:**

Penny Stonebank Darvey

**Client Address:**

2 Rodmell Avenue, Saltdean, East Sussex.

**Job Address:**

Same

**What is the job associated with?:**

Two storey extension

**Is there anything the client has made you aware of?:**

Nothing:

**Start date:**

Unknown date

**End date:**

Unknown date

**Who else is working on the job with you?:**

Other trades / contractors / sub-contractors

**Please list all other trades / contractors / sub-contractors.:**

Main Contractor

unknown

**Who will be responsible for ensuring the job runs safely?:**

Main Contractor

**Who will be the principal contractor?:**

Penny Stonebank Darvey

**How will you keep everyone on site updated during the job?:**

Face to face as changes arise, Written work instruction

**Where are your toilet, washing (basin with hot and cold running water) and rest facilities?:**

Using temporary facilities

**Select the relevant task or trades you will be undertaking on this job:**

General building work or maintenance, Ground works / drainage / foundations, Brickwork, block work, Roof work and installing upper floors, Plastering, rendering, dry-lining, Carpentry work (internal and external), Plumbing and heating, Electrical work, Painting and decorating

## Organise - Health Risks



### Activity:

Cutting, sawing, drilling, breaking out, chasing, sanding/rubbing down or sweeping up which creates harmful dust or working in a dusty work place?



### Risks:

Health risk: Breathing in harmful construction dust leading to lung diseases such as silicosis



### You will need to:

- Maintain good ventilation
- Avoid creating dust
- Use on-tool extraction systems
- Dampen down or use wet cutting techniques
- Use a vacuum rather than sweeping with a brush if possible
- Wear respiratory protection such as a disposable face mask and make sure it has a CE mark and is FFP rated (preferably FFP3)

*! Avoid 'nuisance' or 'general' dust masks as they have no 'protection rating' and offer you little or no protection !*



### Activity:

Working on a building which was built before the year 2000?



### Risks:

Health risk: Exposure to asbestos or asbestos containing materials - breathing in fibres



### You will need to:

- Be aware any building built before 2000 (houses, factories, offices, schools, hospitals etc.) as they can contain asbestos.
- If you suspect you have disturbed or uncovered asbestos you should seek specialist advice
- Most work will need to be carried out by a licensed asbestos removal contractor
- You may carry out some small tasks by following the plan of work and the HSE task guidance sheets
- Make sure you have been properly trained before you start
- For more information visit <http://www.hse.gov.uk/asbestos>



### Activity:

Lifting and carrying heavy or awkward materials and equipment?



### Risks:

Health risk: Manual handling injuries and repetitive strains such as back pain



### You will need to:

- Think about ways to reduce the risk by:
- Ordering materials cut to size

- Splitting the load if possible
- Ask someone to help with the lift
- Use lifting aids (wheel barrow, hoist, sack barrow)



**Activity:**

Using hand held vibratory tools and equipment? Such as drills, breakers, grinders, cut-off saws, sanders, chasers?



**Risks:**

Health risk: Permanent damage to nerves and blood supply to fingers, wrists and hands known as vibration white finger or hand arm vibration syndrome HAVS



**You will need to:**

- Reduce the amount of time on the tools
- Rotate the work with others
- Keep your hands warm and dry
- Keep drill bits, points and chisels sharp
- When purchasing or hiring tools and equipment select those with low vibration ratings

- TIP: Don't grip too tightly - let the tool do the work

*! If your hands tingle after using equipment it's an early warning sign. Repetitiveness can lead to permanent damage !*



**Activity:**

Using noisy tools, plant and equipment or working in a noisy work place?



**Risks:**

Health risk: Permanent damage or loss to hearing / or ringing in ears known as tinnitus



**You will need to:**

- Wear hearing protection (i.e. ear plugs or ear defenders/muffs) every time you use noisy tools and equipment even for short periods or if you work in a noisy area



**Activity:**

Working outside in sunny weather?



**Risks:**

Health risk: Over exposure to sun resulting in skin cancer



**You will need to:**

- Cover up bare skin (keep your top on)
- Use high factor sun cream
- Drink plenty of fluids to avoid dehydration

**Activity:**

Using hazardous materials such as cement, solvents, paints, chemicals?

**Risks:**

Health risk: Risk developing skin conditions such as dermatitis or cement burns

**You will need to:**

- Avoid contact with skin
- Use the correct gloves
- Wash any cement off your skin immediately
- Follow any hazard label instructions



## Organise - Safety Risks



### Activity:

Working off a ladder or step ladders?



### Risks:

Safety risk: Overreaching, losing balance resulting in falls, or unsecured ladder or step ladder toppling over



### You will need to:

- Only use them for light work of a short duration
- Check they are in good condition before use
- Secure ladders by tying them at the top or if able to then secure at the bottom.
- Check ladders are on a firm base and lean at the correct angle (1 unit out to 4 units up)
- Use step ladders on firm level surfaces
- Consider the equipment you will be using and the location and use proprietary attachments such as stabilisers, 'stand-offs' and clip on trays



### Activity:

Working on or erecting a mobile tower, trestles, scaffolding or other access equipment?



### Risks:

Safety risk: Falling off or collapse or overturning of equipment



### You will need to:

- Check what training or instruction you will need to erect and use the equipment safely
- Follow the manufacturers instructions
- Consider using modern trestle systems that have ladder access, guard rails and secure platforms rather than traditional trestles or band stands that can be unstable
- Check that any scaffold is erected by trained and competent persons.

*! Do not alter scaffolding unless authorised !*



### Activity:

Working on or over exposed roof trusses, rafters, joists, staircases or open holes in floors?



### Risks:

Safety risk: Falls, dropping materials or equipment onto others



### You will need to:

- First consider working in ways which prevent falls, such as boarding out the area and providing guardrails
- Alternatively use methods which 'save you' in the event of a fall such as safety nets or soft landing systems
- Only consider fall arrest and suspension equipment (harnesses and lanyards) if you can't do the work any other way

- Fix covers over any open holes or voids that are large enough for someone to fall through

**Activity:**

Working on or accessing a roof or other place where there are unprotected edges or no barriers to stop you falling?

**Risks:**

Safety risk: Falls, dropping materials or equipment onto others

**You will need to:**

- Consider safe ways of working - almost all domestic roof work needs scaffolding or access equipment
- Fit edge protection to stop people and materials from falling from eaves and gable ends
- On terraced properties make sure you provide scaffolding at the front and back of the property
- Stop materials falling onto the street, and people - for example, use debris netting sheeting and/or close fitting scaffold boards

**Activity:**

Working on or accessing a roof or other place which may be a fragile surface (i.e. one that can't take a person's weight such as an asbestos cement roof) or near skylights, conservatory roofs etc.?

**Risks:**

Safety risk: Falls through roof or structure

**You will need to:**

- Always assume that the roof is fragile unless you are certain it is not
- Do not go onto a fragile roof, or ask anyone to go on, unless you/they have the right equipment and the skills and experience to use it correctly
- If possible, do the work without going onto the roof: work from underneath, reach from an access platform or cover fragile areas on the roof
- If you need to work on the roof, prevent falls through the roof using equipment such as boards with guard rails
- Cover or barrier-off skylights to stop people falling through them

*! If you don't have all the equipment with you to prevent falling off or through the roof - don't improvise !*

## General building work or maintenance risks



### Activity:

Employing or using other people or trades?



### Risks:

Safety risk: Accidents and incidents, due to lack of awareness of site rules or what others are doing



### You will need to:

- Provide a simple site induction that explains what the site rules are, and what is expected
- Depending upon the nature of the work you may need to designate it a hard hat site
- Ensure trades speak to each other and know what's going on so they can work safely together



### Activity:

Trailing cables on the floor, storing materials, tools and waste in work areas?



### Risks:

Safety risk: Injury from slips, trips and falls due to poor housekeeping



### You will need to:

- Keep work and storage areas tidy and clean
- If possible route cables overhead or away from where you and others walk
- Tidy as you work and remove waste frequently
- Keep work areas well lit



### Activity:

Working on a site or building that could be accessed by unauthorised persons?



### Risks:

Safety risk: Injury to other people, public, homeowners



### You will need to:

- Fence or secure the site or work area and use signs to warn people
- Check nothing can topple or fall over, cover any holes or voids, and don't leave hazardous substances lying around
- Prevent access to areas that are hazardous such as excavations, open floors, scaffolding, fixed ladders
- Leave the site or work area safe and tidy before you leave each day
- Consider homeowners who are living there (what access do they need, do they have children, inform them of changes and progress)



### Activity:

Demolishing or altering any part of an existing structure or building?

**Risks:**

Safety risk: Sudden or partial collapse of walls, arches, lintels, floors, roofs or adjacent structures

**You will need to:**

- Ensure work is properly planned and structural stability is not compromised
- Support load bearing parts of structures where necessary
- Secure temporary props and check regularly
- Remove debris regularly and do not overload any part of the structure or temporary platforms with debris or materials

*! Seek the advice of a structural engineer if in any doubt !*

**Activity:**

Using electricity supply for lighting and equipment?

**Risks:**

Safety risk: Electrocution, fire

**You will need to:**

- Where possible, use 110v or battery operated portable tools to reduce the risk
- Ensure an RCD / circuit breaker is used if using 240v equipment and that plugs and sockets are protected from damage and weather
- Isolate any existing electrical supplies

**Activity:**

Using lifting equipment such as cranes, hoists, gin wheels?

**Risks:**

Safety risk: Lifting equipment failing, overturning or dropping a load onto persons or structure

**You will need to:**

- Plan all lifting operations and use the correct equipment for the job
- Check the ground or structure can take the weight of the lifting equipment and load
- Keep people clear
- Secure the load properly

**Activity:**

Using, installing or removing glass-wool or mineral wool insulation?

**Risks:**

Health risk: Fibres can irritate the eyes, skin and respiratory system

**You will need to:**

- Cover up bare skin and wear gloves
- Wear respiratory protection such as a disposable face mask and make sure it has a CE

mark and is FFP rated (preferably FFP3)



**Activity:**

Working in an occupied home or workplace?



**Risks:**

Safety risk: Injury to homeowners, children, elderly, others



**You will need to:**

- Ensure you leave the work areas safe and tidy before you leave each day
- Check nothing can topple or fall over, cover any holes or voids, and don't leave hazardous substances lying around
- Prevent access to areas that are hazardous such as excavations, open floors, scaffolding, fixed ladders

## Ground works / drainage / foundations risks



### Activity:

Digging in an area that could have buried services (water, gas, electricity, cable etc.)?



### Risks:

Safety risk: Injury through striking live services



### You will need to:

- Obtain relevant service drawings
- Check the area by using a Service locating device (CAT & Genny)
- Hand dig when you are within 500mm of any known service



### Activity:

Excavating foundations, drainage trenches or bulk / reduced level dig?



### Risks:

Safety risk: Crush injuries or being buried by sudden collapse of excavation



### You will need to:

- Adequately support all excavations as you go (shore, step or batter) regardless of any depth
- Check the excavation before work starts and after any event that may affect its stability (i.e. heavy rain)
- Keep records of your inspections so that people can be sure it is safe for work to continue



### Activity:

Working in an excavation or trench?



### Risks:

Safety risk: People and materials falling in, sudden collapse



### You will need to:

- Provide access either by ladder, scaffolding, staircase etc. to get in and out of the excavation
- Keep plant, soil and materials away from the edge
- Prevent access if unsafe or unsupported



### Activity:

Leaving an excavation or manhole open?



### Risks:

Safety risk: People falling in



### You will need to:

- Fit temporary covers over open manholes, inspection chambers etc. and erect barriers or guards around the edge that are strong enough to take a person's weight

**Activity:**

Excavating near to an existing structure such as a building, garden wall or garage?

**Risks:**

Safety risk: Sudden collapse due to undermining or weakening the existing structure

**You will need to:**

- Make sure structures are not undermined, dig well away from them or install suitable temporary works support

*! If in doubt seek advice from a structural engineer !*

**Activity:**

In contact with sewage?

**Risks:**

Health risk: Weil's disease or Leptospirosis - starts as mild illness similar to flu but left untreated can be fatal

**You will need to:**

- Wear protective clothing such as rubber or non-absorbent gloves
- Wash hands after any contact - good personal hygiene is essential

**Activity:**

Using driver operated plant, such as mini diggers and dumpers?

**Risks:**

Safety risk: Plant overturning, striking other people, overcome by exhaust fumes/asphyxiation

**You will need to:**

- Only operate the plant if you are competent (blend of knowledge, ability, training and experience)
- Keep others away from plant movements and traffic routes
- Be aware of crush zones (mini diggers slewing near buildings)
- Avoid driving close to excavations
- Only operate the plant for which it is designed for
- Be aware that exhaust fumes are heavier than air and can quickly fill spaces such as excavations and basements. Regularly 'stir the air' or provide mechanical ventilation/extraction

## Brickwork, block work risks



### Activity:

Stacking and storing materials, creating rubbish?



### Risks:

Safety risk: Slips and trips, materials falling, injury to other people



### You will need to:

- Use brick guards to prevent falls of materials onto others
- Stack pallets of bricks and blocks on firm level ground and not more than two high
- Keep work areas and walkways tidy and clear of rubble, materials, trailing leads and rubbish
- Wear safety footwear



### Activity:

Loading out bricks, blocks, mortar and lintels?



### Risks:

Health risk: Manual handling

Safety risk: Overloading scaffold or access equipment working platforms



### You will need to:

- Get bricks, cements, lintels delivered as close to work area as possible
- Use lightweight blocks where possible
- Cover bricks/blocks with tarpaulin when stored on site to prevent taking up water
- Use trolleys and lifting aids to load out materials
- Raise spot boards with blocks to easy working height

*! Do not overload working platforms or floors !*



### Activity:

Mixing mortar and concrete on site?



### Risks:

Health risk: Dermatitis and cement burns

Safety risk: Crushed if mixer topples or caught in moving parts, electric shock



### You will need to:

- Use cement or cement containing products within the use-by date
- Avoid direct skin contact - wear non-absorbent CE marked gloves when handling mortar
- Have good washing facilities on site, with hot and cold water, soap and basins large enough to wash forearms
- Have an emergency eyewash to hand
- Locate cement mixer on firm, level ground
- Ensure mixer is fully guarded and guards in place during operation
- Protect electrical leads and use an RCD / circuit breaker



*! Ensure washout does not enter drains or watercourses !*



**Activity:**

Cutting, chasing or drilling bricks or blocks?



**Risks:**

Health risk: Breathing in harmful construction dust leading to lung diseases

Safety risk: Eye injuries



**You will need to:**

- Stop using dry cutting methods
- Where possible replace angle grinders and cut-off saws with a block splitter (removing the risk of significant dust exposure)
- Use wet cutting techniques such as using a water feed while cutting
- Use a wall chaser with on-tool dust extraction
- Wear eye protection when cutting brick bands or using chisels and bolsters
- Wear respiratory protection such as a disposable face mask make sure it has a CE mark and is FFP rated (preferably FFP3)



**Activity:**

Using epoxy resins, brick acid or other chemicals?



**Risks:**

Health risk: Breathing in harmful fumes, damage skin, eyes and respiratory tract



**You will need to:**

- Check labels and data sheets for the controls to follow including necessary PPE such as gloves and eye protection
- Always use in a well-ventilated area



**Activity:**

Working in an occupied home or workplace?



**Risks:**

Safety risk: Injury to homeowners, children, elderly, others



**You will need to:**

- Ensure you leave the work areas safe and tidy before you leave each day
- Check nothing can topple or fall over, cover any holes or voids, and don't leave hazardous substances lying around
- Prevent access to areas that are hazardous such as excavations, open floors, scaffolding, fixed ladders

## Roof work and installing upper floors risks



### Activity:

Working at height or carrying out short duration work such as inspections, cleaning, maintenance or quick repairs to places that are above the ground or in places where you could fall?



### Risks:



### You will need to:

*! Stop and assess what the safest option is by reassessing the previous safety options as they may apply but have not been considered as part of short duration work !*



### Activity:

Stacking and storing materials, creating rubbish?



### Risks:

Safety risk: Slips and trips, materials falling, injury to other people



### You will need to:

- Use brick guards to prevent falls of materials onto others
- Stack pallets of materials on firm level ground and not more than two high
- Keep work areas and walkways tidy and clear of rubble, materials, trailing leads and rubbish
- If possible, use a hoist or other lifting devices to raise and lower materials and equipment to the work area



### Activity:

Mechanically cutting roof tiles or slates?



### Risks:

Health risk: Breathing in harmful construction dust leading to lung diseases



### You will need to:

- Stop using dry cutting methods
- Use wet cutting techniques such as using a water feed while cutting
- Wear respiratory protection such as a disposable face mask make sure it has a CE mark and is FFP rated (preferably FFP3)



### Activity:

Stripping off existing roof coverings or structures?



### Risks:

Safety risk: Fragile roof surfaces, falls from height, materials falling, injury to other people



**You will need to:**

- Provide working platforms and edge protection such as scaffolding
- Keep people away from the area in case of loose or falling materials
- Do not throw materials from the roof or the scaffold ('bombing') - use a chute or similar.

## Plastering, rendering, dry-lining risks



### Activity:

Stacking and storing materials, creating rubbish?



### Risks:

Safety risk: Slips and trips, materials falling, injury to other people



### You will need to:

- Keep work areas and walkways tidy and clear of rubble, materials, trailing leads and rubbish



### Activity:

Lifting and handling heavy or awkward objects, e.g. plasterboard or bags of plaster?



### Risks:

Health risk: Injuries such as back pain



### You will need to:

- Consider using smaller or half sheets of plasterboard if possible
- Use mechanical lifting aids such as sack barrows and board trolleys
- Use board and panel mechanical lifters, jacks and telescopic props



### Activity:

Mixing plaster?



### Risks:

Safety risk: Electrocution



### You will need to:

- Protect electrical leads and where possible, use 110v paddle mixer to reduce the risk else use an RCD / circuit breaker for 240v equipment
- Keep the mixing area clean and tidy to prevent slips and trips

*! Ensure washout does not enter drains or watercourses !*



### Activity:

Plastering near electrical sockets, spurs etc.?



### Risks:

Safety risk: Electrocution



### You will need to:

- Check with the electrician that any exposed wires and open power points are not live

**Activity:**

Rubbing down plaster / tape and jointing?

**Risks:**

Health risk: Irritation of eyes or sensitive skin, or short-term irritation of respiratory system

**You will need to:**

- Avoid skin contact, excessive dust build-up and contact with eyes
- Ensure there's a water supply nearby to wash dust off skin
- Wear eye protection when plastering ceilings
- Consider using a 'mechanical drywall sander' with on-tool dust extraction system that is cleaner and faster than traditional drywall pole sanders

**Activity:**

Working in an occupied home or workplace?

**Risks:**

Safety risk: Injury to homeowners, children, elderly, others

**You will need to:**

- Ensure you leave the work areas safe and tidy before you leave each day
- Check nothing can topple or fall over, cover any holes or voids, and don't leave hazardous substances lying around
- Prevent access to areas that are hazardous such as excavations, open floors, scaffolding, fixed ladders

## Carpentry work (internal and external) risks



### Activity:

Stacking and storing materials, creating rubbish?



### Risks:

Safety risk: Slips and trips, materials falling, injury to other people



### You will need to:

- Keep work areas and walkways tidy and clear of rubble, materials, trailing leads and rubbish



### Activity:

Kneeling for prolonged periods on hard or uneven surfaces?



### Risks:

Health risk: Chronic knee pain and permanent damage



### You will need to:

- Use kneeling pads, kneeling mats or cushions and padded trousers



### Activity:

Using hand tools and power tools?



### Risks:

Safety risk: Contact with moving parts



### You will need to:

- Where possible, use 110v tools or battery operated portable tools to reduce the risk
- Ensure an RCD / circuit breaker is used if using 240v equipment and that plugs and sockets are protected from damage and weather
- Ensure power tools are in good condition and well maintained
- Always use the correct guard and ensure it is adjusted correctly and working correctly
- Keep loose clothing and trailing cables away from moving parts
- If fitted, regularly test emergency stops and other cut-out or breaking switches
- Ensure hand tools are properly maintained and stored safely when not in use



### Activity:

Using compressed gas or cartridge operated tools?



### Risks:

Safety risk: Struck by nails, fragments or rebounds



### You will need to:

- Always wear eye protection that is high impact rated
- Use the correct power cartridge or settings to avoid nails firing through and out the

other side

- Load the tool with the barrel pointing away from you
- Never keep the tool loaded when not in use



**Activity:**

Creating harmful wood dust (softwood, hardwood or MDF)?



**Risks:**

Health risk: Breathing in harmful construction dust leading to allergic respiratory symptoms, lung diseases, cancers as well as skin disorders



**You will need to:**

- Maintain good ventilation
- Avoid creating dust
- Use on-tool extraction systems designed for the task and regularly clean filters and bags
- Use a vacuum rather than sweeping with a brush if possible
- Wear respiratory protection such as a disposable face mask and make sure it has a CE mark and is FFP rated (preferably FFP3)



**Activity:**

Working in an occupied home or workplace?



**Risks:**

Safety risk: Injury to homeowners, children, elderly, others



**You will need to:**

- Ensure you leave the work areas safe and tidy before you leave each day
- Check nothing can topple or fall over, cover any holes or voids, and don't leave hazardous substances lying around
- Prevent access to areas that are hazardous such as excavations, open floors, scaffolding, fixed ladders

## Plumbing and heating risks



### Activity:

Stacking and storing materials, creating rubbish?



### Risks:

Safety risk: Slips and trips, materials falling, injury to other people



### You will need to:

- Keep work areas and walkways tidy and clear of rubble, materials, trailing leads and rubbish



### Activity:

Working with naked flames (using a blow torch / hot works)?



### Risks:

Safety risk: Fire



### You will need to:

- Keep a fire extinguisher next to the work area
- Dampen down the area prior to undertaking hot works (if applicable)
- Use a fire blanket or non-combustible material to protect surrounding area from the heat and flame
- Check the area at least 1 hour after to check there are no hot spots or smouldering materials



### Activity:

Working with lead?



### Risks:

Health risk: Lead poisoning from inhaling or ingesting lead paint chips, and lead dust, fume or vapour



### You will need to:

- Wash hands after any contact with lead - good personal hygiene is essential
- Wear respiratory protection to protect against lead dust, such as a disposable face mask and make sure it has a CE mark and is FFP rated (preferably FFP3)
- For further advice visit [www.lipsa.org.uk](http://www.lipsa.org.uk)



### Activity:

Using, installing or removing glass-wool or mineral wool insulation?



### Risks:

Health risk: Fibres can irritate the eyes, skin and respiratory system



### You will need to:



- Cover up bare skin and wear gloves
- Wear respiratory protection such as a disposable face mask and make sure it has a CE mark and is FFP rated (preferably FFP3)

**Activity:**

In contact with sewage?

**Risks:**

Health risk: Weil's disease or Leptospirosis - starts as mild illness similar to flu but left untreated can be fatal

**You will need to:**

- Wear protective clothing such as rubber or non-absorbent gloves
- Wash hands after any contact - good personal hygiene is essential

**Activity:**

Working in an occupied home or workplace?

**Risks:**

Safety risk: Injury to homeowners, children, elderly, others

**You will need to:**

- Ensure you leave the work areas safe and tidy before you leave each day
- Check nothing can topple or fall over, cover any holes or voids, and don't leave hazardous substances lying around
- Prevent access to areas that are hazardous such as excavations, open floors, scaffolding, fixed ladders

**Activity:**

Kneeling for prolonged periods on hard or uneven surfaces?

**Risks:**

Health risk: Chronic knee pain and permanent damage

**You will need to:**

- Use kneeling pads, kneeling mats or cushions and padded trousers

## Electrical work risks



### Activity:

Carrying out electrical installations?



### Risks:

Safety risk: Electrocution, fire



### You will need to:

- Hold industry recognised training and qualifications to carry out electrical work (such as 17th Edition (IET) Wiring Regulations)
- Ensure all work complies with the safety standards in BS 7671 (the 'wiring regulations')
- Provide the client with handover certification when the work needs to comply with building regulations



### Activity:

Working on live or existing installations?



### Risks:

Safety risk: Electrocution, fire



### You will need to:

- Treat all circuits to be worked on as live until verified dead or isolated
- Prevent others accessing live equipment, or exposed cables or tails



### Activity:

Stacking and storing materials, creating rubbish?



### Risks:

Safety risk: Slips and trips, materials falling, injury to other people



### You will need to:

- Keep work areas and walkways tidy and clear of rubble, materials, trailing leads and rubbish



### Activity:

Drilling or chasing walls?



### Risks:

Safety risk: Hitting hidden cables - electrocution



### You will need to:

- Check for the presence of cables or services before starting and mark them on the wall, floor or ceiling

**Activity:**

Working in an occupied home or workplace?

**Risks:**

Safety risk: Injury to homeowners, children, elderly, others

**You will need to:**

- Ensure you leave the work areas safe and tidy before you leave each day
- Check nothing can topple or fall over, cover any holes or voids, and don't leave hazardous substances lying around
- Prevent access to areas that are hazardous such as excavations, open floors, scaffolding, fixed ladders

**Activity:**

Kneeling for prolonged periods on hard or uneven surfaces?

**Risks:**

Health risk: Chronic knee pain and permanent damage

**You will need to:**

- Use kneeling pads, kneeling mats or cushions and padded trousers

## Painting and decorating risks



### Activity:

Stacking and storing materials, creating rubbish?



### Risks:

Safety risk: Slips and trips, materials falling, injury to other people



### You will need to:

- Keep work areas and walkways tidy and clear of rubble, materials, trailing leads and rubbish



### Activity:

Using solvent based paints, epoxy resins and chemical strippers?



### Risks:

Health risk: Irritation of eyes or sensitive skin, or short-term irritation of respiratory system, long term cancers



### You will need to:

- Consider using water-based products that are more environmentally-friendly and contain very low levels of solvents
- Always take note of any cautions or potential dangers indicated on the paint can, and take the appropriate preventative action
- Always remember to use protective equipment especially eye-goggles and a face mask to cover the mouth and nose
- Take precautions when handling and storing solvents
- Wash your hands after use
- Remember to ensure adequate ventilation in rooms you are painting - open windows and doors wherever possible
- Keep children away from areas you are painting

*! Do not pour paints, solvents or let brush washings enter drains or watercourses !*



### Activity:

Preparing and rubbing down surfaces?



### Risks:

Health risk: Irritation of eyes or sensitive skin, or short-term irritation of respiratory system



### You will need to:

- Avoid skin contact, excessive dust build-up and contact with eyes
- Wear respiratory protection such as a disposable face mask and make sure it has a CE mark and is FFP rated (preferably FFP3)
- Consider using a 'mechanical drywall sander' with on-tool dust extraction system that is cleaner and faster than traditional drywall pole sanders when rubbing down walls and ceilings

**Activity:**

Kneeling for prolonged periods on hard or uneven surfaces?

**Risks:**

Health risk: Chronic knee pain and permanent damage

**You will need to:**

- Use kneeling pads, kneeling mats or cushions and padded trousers

**Activity:**

Working in an occupied home or workplace?

**Risks:**

Safety risk: Injury to homeowners, children, elderly, others

**You will need to:**

- Ensure you leave the work areas safe and tidy before you leave each day
- Check nothing can topple or fall over, cover any holes or voids, and don't leave hazardous substances lying around
- Prevent access to areas that are hazardous such as excavations, open floors, scaffolding, fixed ladders

## **About This Plan**

This plan contains information on controls that can help keep you and others healthy and safe.

If you are the principal contractor you are responsible for this plan. Other contractors may use the CDM Wizard app to generate a CDM Action Plan for their own work.

It's important that everyone knows what is expected of each other, especially as things can change quickly from day to day. You may have to amend the report as the job changes or new trades / contractors start.

Speak to each other about what's to be done, when and how it can be done safely.

It is also vital that those carrying out the work have the right combination of skills, knowledge, training and experience and are provided with the right tools, plant and equipment, information, instruction and supervision.

## **Further Information**

If you are unsure about how you can make your site safer or about the health risks, more information can be found at [www.hse.gov.uk/construction](http://www.hse.gov.uk/construction). You can download Busy Builder sheets for activities such as loft conversions and small building work, and for advice on hazards such as dust and lead, and the Client leaflet.

Six CDM industry guides based on sound industry practice can be found at [www.citb.co.uk/cdmregs](http://www.citb.co.uk/cdmregs) and will help small businesses deliver building and construction projects in a way that secures health and safety. It includes guidance for clients, designers, contractors, and workers.

For information about training, apprenticeships or advice on running your business go to [www.citb.co.uk](http://www.citb.co.uk)

(C) 2015 Construction Industry Training Board

CITB has made every effort to ensure that the information contained within this app is accurate. Its content should be used as guidance only and not as a replacement for current regulations, existing standards or as a substitute for legal advice and is presented without any warranty, either express or implied, as to its accuracy. In no event will CITB be liable for any damages arising from reliance upon its content. All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior permission in writing from CITB save that it may be read and saved by the original recipient, for whose private use it was originally intended.