

Ground floor (Flat 01)	
Room	Area [m2]
Hallway	3,37
Unit 1	10,45
En-Suite.01	1,60
Kitchen	9,29
Unit 2	10,07
En-Suite.02	1,60
Unit 3	10,12
En-Suite.03	1,60
Unit 4	11,45
En-Suite.04	1,60
Unit 5	10,00
En-Suite.05	1,64
Unit 6	10,93
En-Suite.06	1,60
	85.32

Grade and Category of Fire Detection and Fire Alarm System  
House of Multiple Occupancy (HMO)  
L1 alarm system to BS 5839-1:2017

The highest level of protection of all occupants who might occupy the dwelling over the lifetime of the fire detection and fire alarm system. A system installed throughout the premises, incorporating detectors in all circulation areas that form part of the escape routes from the premises, and in all rooms and areas, other than those with negligible sources of ignition, such as toilets, bathrooms and shower rooms. Hallway, Landing, Living Room, Kitchen (Heat Alarm), Bedroom, Airing / Meier Cupboards, Loft, Garage (Detectors may normally be omitted from roof voids unless there are specific significant fire hazards such as gas boilers or electrical equipment for photovoltaic systems)

30 MINUTE FIRE RATED WALLS  
Line of fire resistance to be provided to full height of walls between structural floor and soffit, all door openings, service penetrations, transfer grilles to meet the same fire resistance using appropriate seals, dampers or intumescent foam respectively.

Timber stud partitions to be installed strictly in accordance with manufacturer's instructions, with appropriate jointing, head and sole plate details and sealant to meet required fire resistance.

FIRE DOORS GENERALLY  
NB- All fire doors to be provided with the appropriate manufacturer's fire certificate. Where vision panels are not factory fitted the same certification must still be provided by either the manufacturer or joinery shop installing them.

Ironmongery must be shown by the manufacturer to have been tested to 30 or 60 minute fire integrity. Manufacturer to be consulted on any additional requirements necessary to provide 60 minutes integrity such as intumescent paper behind the hinges.

FD30S Generally 30 minutes self closing 'PERCO' type closer's.

INDICATES EVACUATION ROUTES.

All final exits lead to a place of ultimate safety

VENTILATION DUCTS OR BOILER FLUE.

Doors on escape routes should only be fitted with a simple fastening, which can be readily operated from the side approached by persons escaping from fire. The operation of the fastening should be without the use of a key and without having to manipulate more than one mechanism, i.e., 'single action'. The physical capabilities of the persons who may need to operate the fastening should be fully taken into account.

Symbol Description  
FIRE DETECTION & ALARMS

EXIT	ILLUMINATED FIRE EXIT SIGNAGE
⊗	HEAT/ SMOKE DETECTOR
⊙	FIRE ALARM MANUAL CALL POINT
Ⓜ	EMERGENCY LIGHT
Ⓜ	FIRE ALARM SWITCH BOARD
FE	FIRE EXTINGUISHER
FB	FIRE BLANKET

## PROPOSED GROUND FLOOR PLAN

1: 50 @A3

Table 4.1 Classification of linings

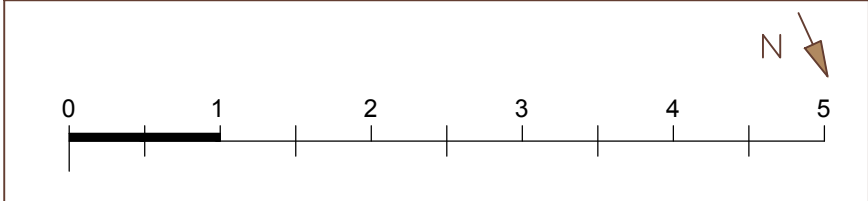
Location	Classification
Small rooms of maximum internal floor area of 4m <sup>2</sup>	D-s3, d2
Garages (as part of a dwellinghouse) of maximum internal floor area of 40m <sup>2</sup>	D-s3, d2
Other rooms (including garages)	C-s3, d2
Circulation spaces within a dwelling	B-s3, d2 <sup>(1)</sup>
Other circulation spaces (including the common areas of block of flats)	B-s3, d2 <sup>(1)</sup>

### NOTE:

- Wallcoverings which conform to BS EN 15102, achieving at least class C-s3, d2 and bonded to a class A2-s3, d2 substrate, will also be acceptable.

EMERGENCY LIGHTING  
Emergency Lighting to BS 5266 Pt 1 will be required in common escape routes, including stairways.

Meters located within the stairway should be enclosed with a secure cupboard which is separated from the escape route with fire resisting construction. All gas services within a protected stairway must be installed in accordance with The Gas Safety (Installation and Use) Regulations 1998.



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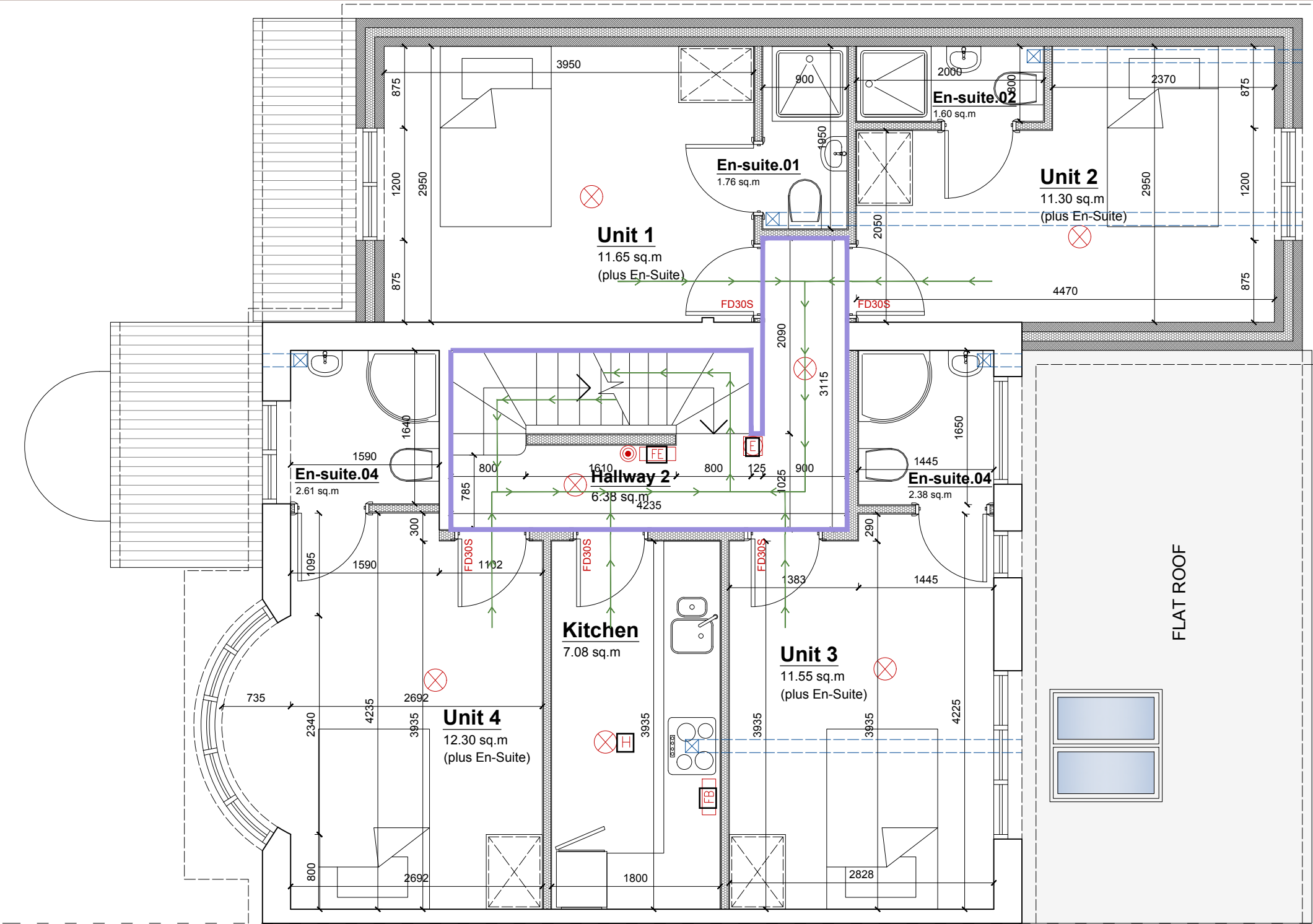
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X		X

Status drawing: CONSTRUCTION

Drawing Title: PROPOSED GROUND FLOOR PLAN

Client:	Scale: 1:50 @A3	Drawn by: AL
	Date creation: November 2024	Checked by:
Job Title: 2 Chalfont Road, Hayes UB3 3BU	Job Code No.: CHR2	Dirg. No.: C01



First floor (Flat 02)	
Room	Area [m2]
Hallway 2	6,38
Unit 1	11,65
En-Suite.01	1,75
Unit 2	11,30
En-Suite.02	1,60
Unit 3	11,55
En-Suite.03	2,38
Kitchen	7,08
Unit 4	12,30
En-Suite.04	2,61
	68.60

Grade and Category of Fire Detection and Fire Alarm System	
House of Multiple Occupancy (HMO)	
L1 alarm system to BS 5839-1:2017	
The highest level of protection of all occupants who might occupy the dwelling over the lifetime of the fire detection and fire alarm system. A system installed throughout the premises, incorporating detectors in all circulation areas that form part of the escape routes from the premises, and in all rooms and areas, other than those with negligible sources of ignition, such as toilets, bathrooms and shower rooms. Hallway, Landing, Living Room, Kitchen (Heat Alarm), Bedroom, Airing / Meter Cupboards, Loft, Garage. (Detectors may normally be omitted from roof voids unless there are specific significant fire hazards such as gas boilers or electrical equipment for photovoltaic systems)	
Symbol	Description
FIRE DETECTION & ALARMS	
	ILLUMINATED FIRE EXIT SIGNAGE
	HEAT / SMOKE DETECTOR
	FIRE ALARM MANUAL CALL POINT
	EMERGENCY LIGHT
	FIRE ALARM SWITCH BOARD
	FIRE EXTINGUISHER
	FIRE BLANKET

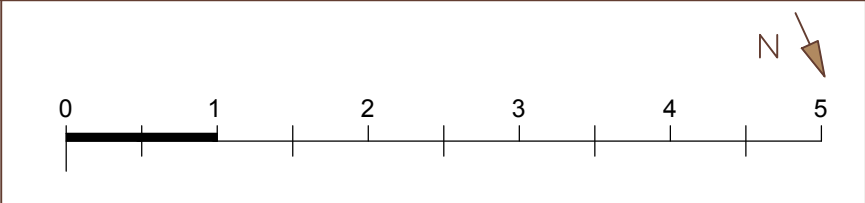
30 MINUTE FIRE RATED WALLS	
Line of fire resistance to be provided to full height of walls between structural floor and soffit, all door openings, service penetrations, transfer grilles to meet the same fire resistance using appropriate seals, dampers or intumescent foam respectively.	
Timber stud partitions to be installed strictly in accordance with manufacturer's instructions, with appropriate jointing, head and sole plate details and sealant to meet required fire resistance.	
FIRE DOORS GENERALLY	
NB- All fire doors to be provided with the appropriate manufacturer's fire certificate. Where vision panels are not factory fitted the same certification must still be provided by either the manufacturer or joinery shop installing them.	
Ironmongery must be shown by the manufacturer to have been tested to 30 or 60 minute fire integrity. Manufacturer to be consulted on any additional requirements necessary to provide 60 minutes integrity such as intumescent paper behind the hinges.	
FD30S	Generally 30 minutes self closing 'PERCO' type closer's.
	INDICATES EVACUATION ROUTES.
All final exits lead to a place of ultimate safety	
	VENTILATION DUCTS OR BOILER FLUE.
Doors on escape routes should only be fitted with a simple fastening, which can be readily operated from the side approached by persons escaping from fire. The operation of the fastening should be without the use of a key and without having to manipulate more than one mechanism, ie, 'single action'. The physical capabilities of the persons who may need to operate the fastening should be fully taken into account.	

## PROPOSED FIRST FLOOR PLAN

1: 50 @A3

Table 4.1 Classification of linings	
Location	Classification
Small rooms of maximum internal floor area of 4m <sup>2</sup>	D-s3, d2
Garages (as part of a dwellinghouse) of maximum internal floor area of 40m <sup>2</sup>	D-s3, d2
Other rooms (including garages)	C-s3, d2
Circulation spaces within a dwelling	
Other circulation spaces (including the common areas of block of flats)	B-s3, d2 <sup>(1)</sup>
NOTE:	
1. Wallcoverings which conform to BS EN 15102, achieving at least class C-s3, d2 and bonded to a class A2-s3, d2 substrate, will also be acceptable.	

EMERGENCY LIGHTING	
Emergency Lighting to BS 5266 Pt 1 will be required in common escape routes, including stairways.	
Meters located within the stairway should be enclosed with a secure cupboard which is separated from the escape route with fire resisting construction. All gas services within a protected stairway must be installed in accordance with The Gas Safety (Installation and Use) Regulations 1998.	



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Date:

By:

Status drawing:

CONSTRUCTION

Drawing Title:

PROPOSED FIRST FLOOR PLAN

Client:

Scale:

1:50 @A3

Drawn by:

AL

Date creation:

November 2024

Checked by:

Job Title:

Job Code No.:

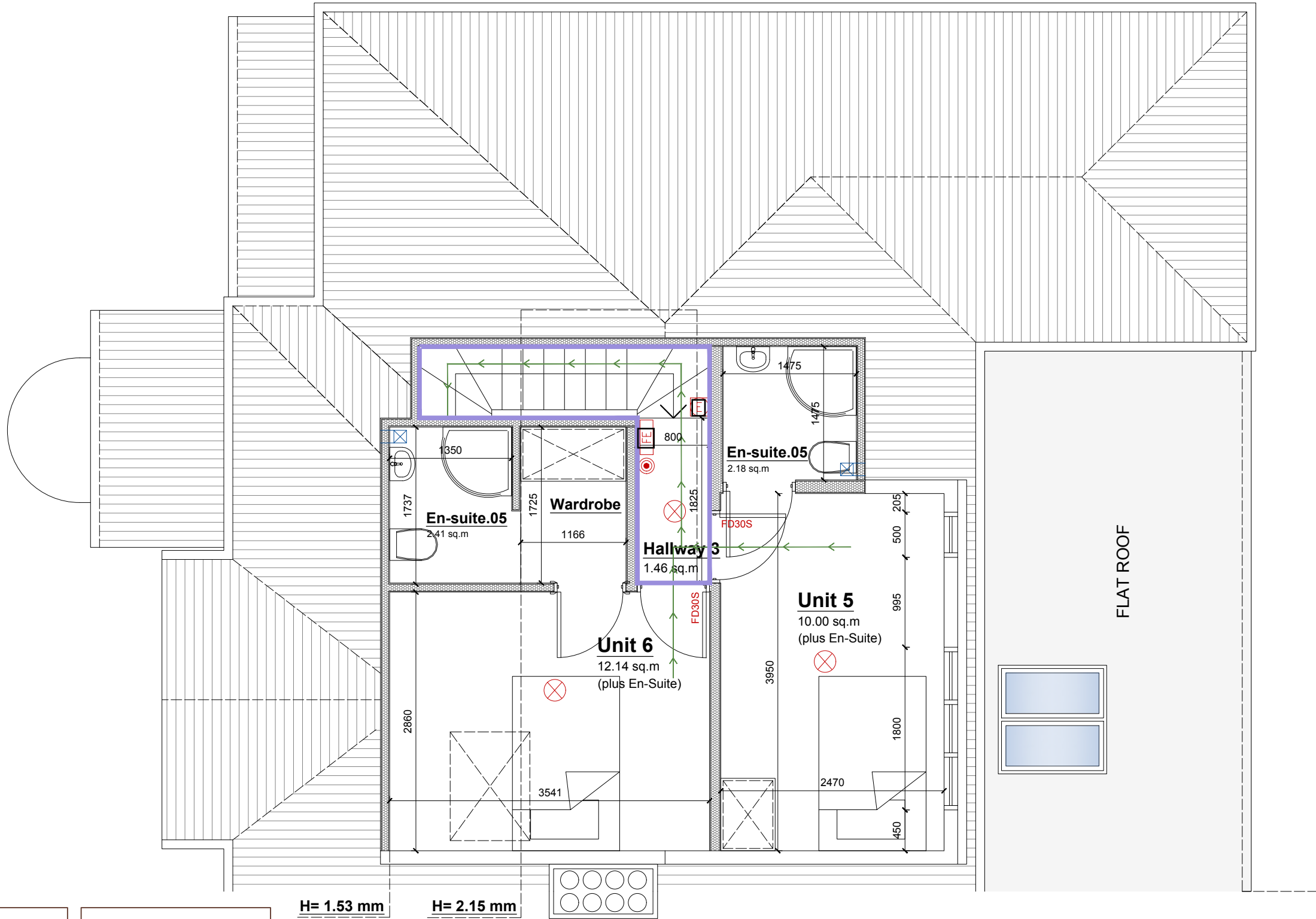
2 Chalfont Road,  
Hayes UB3 3BU

Drg. No.:

CHR2

Rev.:

C02



Second floor (Flat 02)	
Room	Area [m2]
Hallway 3	1,46
Unit 5	10,00
En-Suite.05	2,18
Unit 6	12,14
En-Suite.06	2,41
	28.19

Grade and Category of Fire Detection and Fire Alarm System House of Multiple Occupancy (HMO)	
L1 alarm system to BS 5839-1:2017	
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Symbol	Description
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	ILLUMINATED FIRE EXIT SIGNAGE
	HEAT/ SMOKE DETECTOR
	FIRE ALARM MANUAL CALL POINT
	EMERGENCY LIGHT
	FIRE ALARM SWITCH BOARD
	FIRE EXTINGUISHER
	FIRE BLANKET

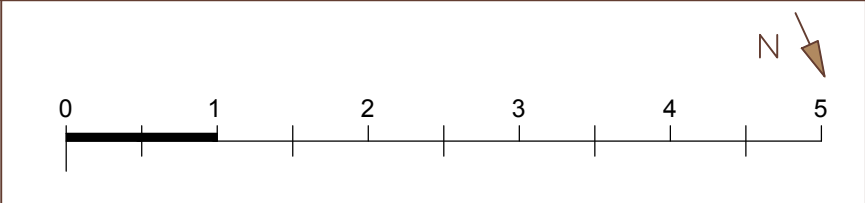
30 MINUTE FIRE RATED WALLS	
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FIRE DOORS GENERALLY	
NB- All fire doors to be provided with the appropriate manufacturer's fire certificate. Where vision panels are not factory fitted the same certification must still be provided by either the manufacturer or joinery shop installing them.	
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FD30S Generally 30 minutes self closing 'PERCO' type closer's.	
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## PROPOSED SECOND FLOOR PLAN

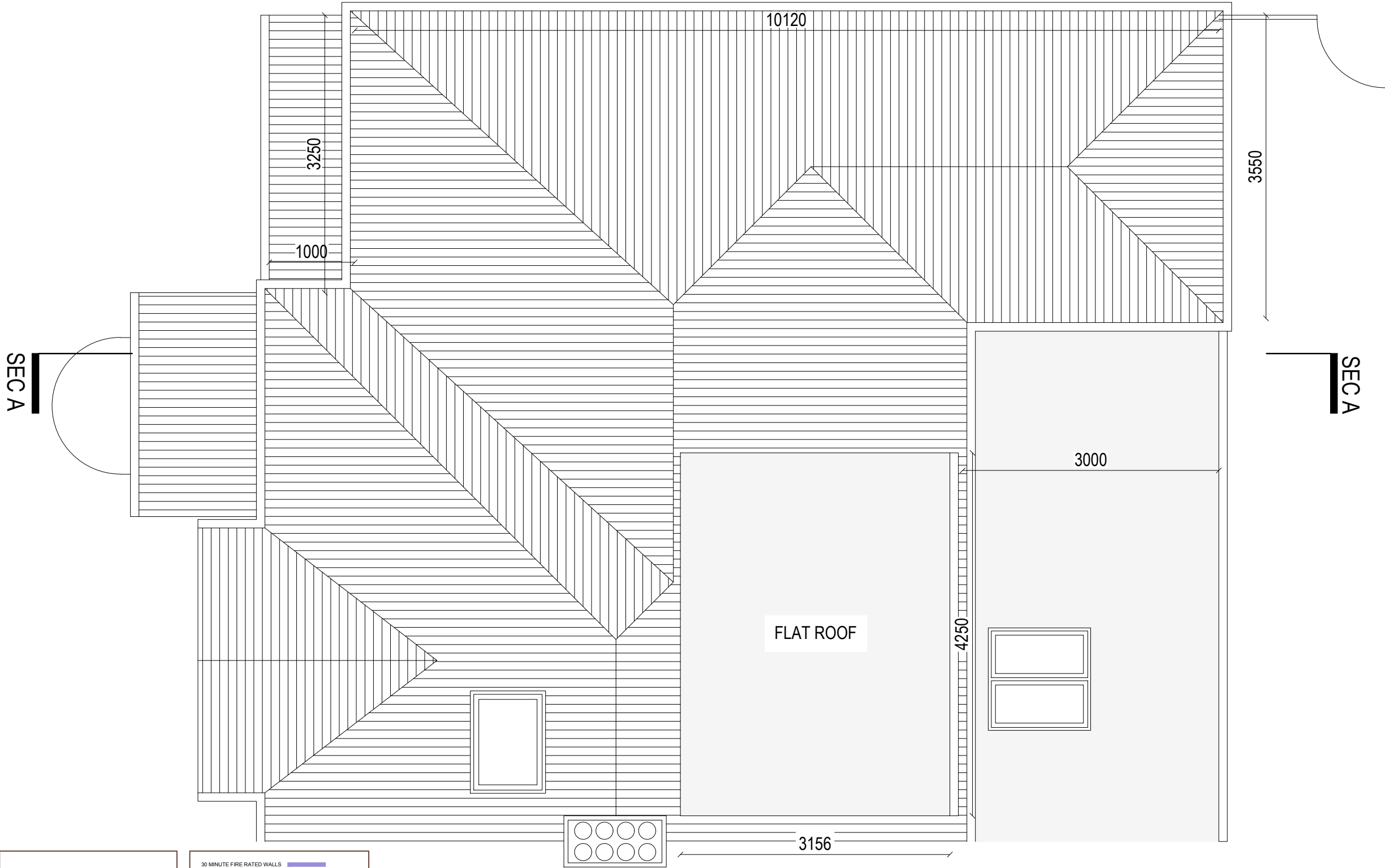
1: 50 @A3

Table 4.1 Classification of linings	
Location	Classification
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Other rooms (including garages)	C-s3, d2
Circulation spaces within a dwelling	B-s3, d2 <sup>(1)</sup>
Other circulation spaces (including the common areas of block of flats)	B-s3, d2 <sup>(1)</sup>
NOTE: 1. Wallcoverings which conform to BS EN 15102, achieving at least class C-s3, d2 and bonded to a class A2-s3, d2 substrate, will also be acceptable.	

EMERGENCY LIGHTING	
Emergency Lighting to BS 5266 Pt 1 will be required in common escape routes, including stairways.	
Meters located within the stairway should be enclosed with a secure cupboard which is separated from the escape route with fire resisting construction. All gas services within a protected stairway must be installed in accordance with The Gas Safety (Installation and Use) Regulations 1998.	



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Revisions:		Date:	By:
X			
			X
Status drawing:			
CONSTRUCTION			
Drawing Title:			
PROPOSED SECOND FLOOR PLAN			
Client:	Scale: 1:50 @A3	Drawn by: AL	
	Date creation: November 2024	Checked by:	
Job Title:	Job Code No.:	Drg. No.:	Rev.:
2 Chalfont Road, Hayes UB3 3BU	CHR2	C03	



Grade and Category of Fire Detection and Fire Alarm System House of Multiple Occupancy (HMO)	
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	FIRE EXTINGUISHER
	FIRE BLANKET

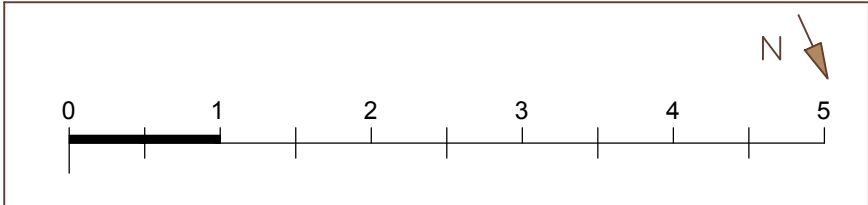
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## PROPOSED ROOF PLAN

1: 50 @A3

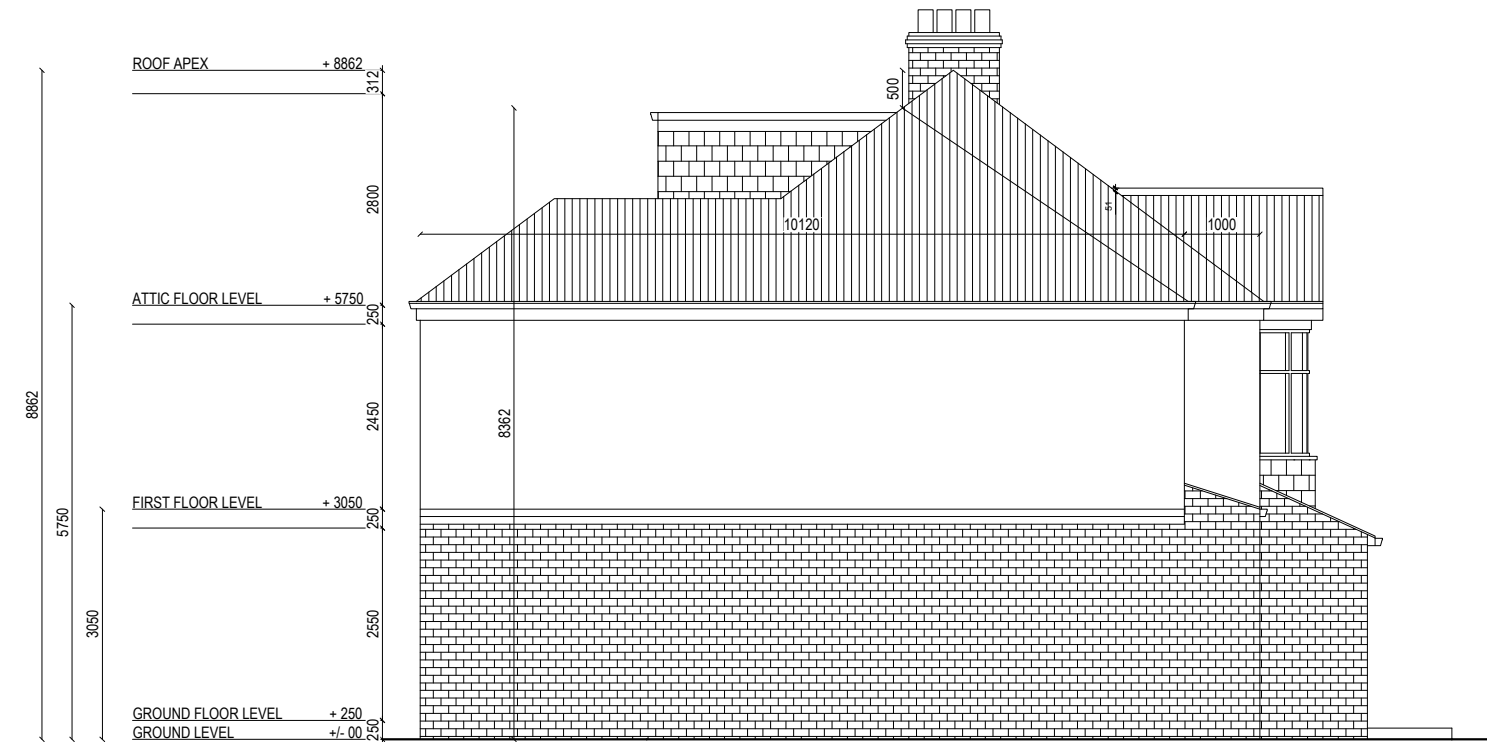
Table 4.1 Classification of linings	
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Revisions:		Date:	By:
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			X
Status drawing:			
CONSTRUCTION			
Drawing Title:			
PROPOSED ROOF PLAN			
Client:		Scale:	
		1:50 @A3	
		Date creation:	
		November 2024	
Job Title:		Job Code No.:	
2 Chalfont Road, Hayes UB3 3BU		CHR2	
		Dirg. No.:	Rev.:
		C04	

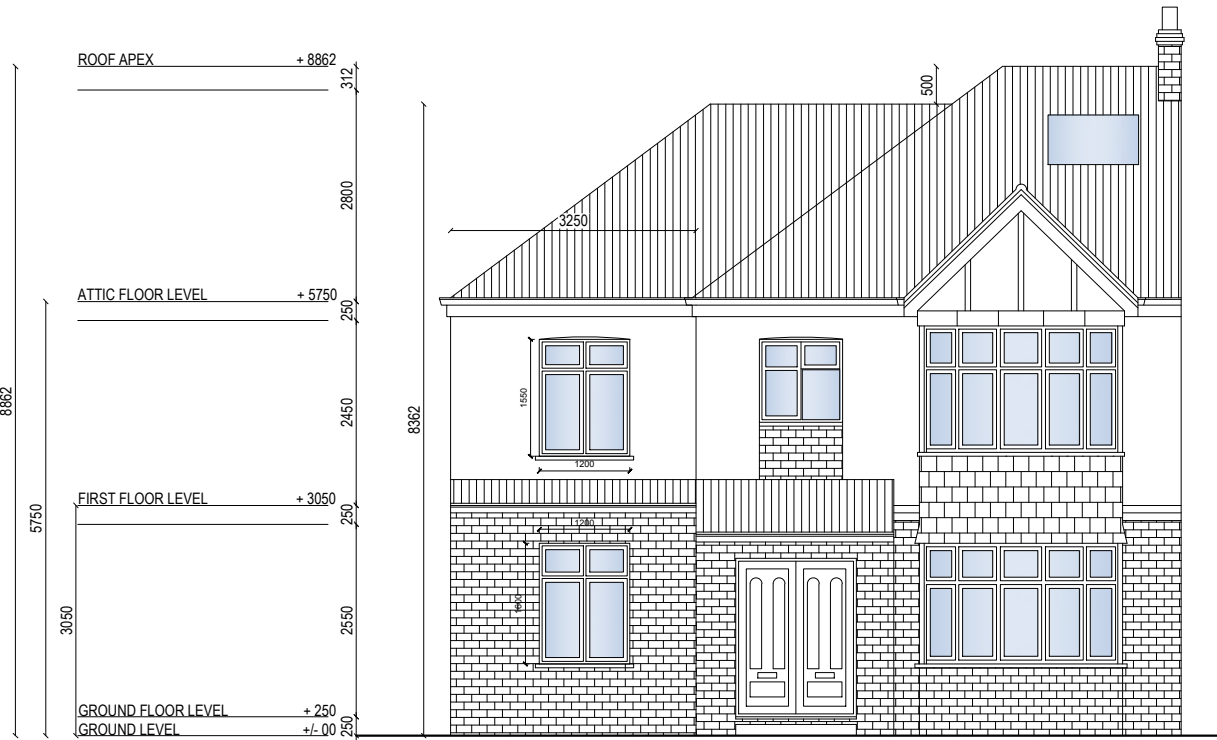




**PROPOSED LEFT-SIDE ELEVATION**  
1: 100 @A3



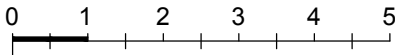
**PROPOSED RIGHT-SIDE ELEVATION**  
1: 100 @A3



**PROPOSED FRONT ELEVATION**  
1: 100 @A3



**PROPOSED REAR ELEVATION**  
1: 100 @A3



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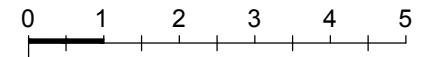
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X.		X

Status drawing:	CONSTRUCTION
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Drawing Title:	PROPOSED ELEVATIONS
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Client:	Scale: 1:100 @A3	Drawn by: AL
	Date creation: November 2024	Checked by:
Job Title: 2 Chalfont Road, Hayes UB3 3BU	Job Code No.: CR2	Org. No.: C05

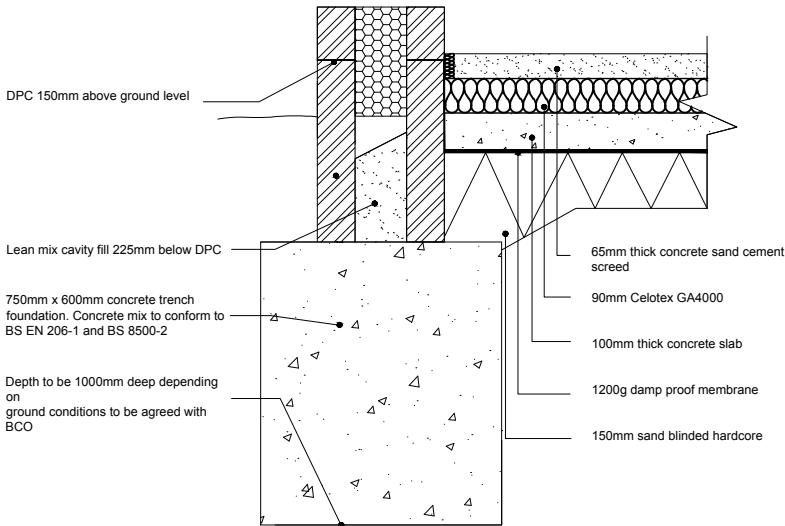


## PROPOSED SECTION A-A

1: 100 @A3

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Revisions:	Date:	By:	
X.		X.	
Status drawing:			
CONSTRUCTION			
Drawing Title:			
PROPOSED SECTION A-A			
Client:	Scale:	Drawn by:	
	1:100 @A3	AL	
	Date creation:	Checked by:	
	November 2024		
Job Title:	Job Code No.:	Drg. No.:	Rev.:
2 Chalfont Road, Hayes UB3 3BU	CR2	C06	

## DETAIL 1 TRENCH FOUNDATION



### TRENCH FOUNDATION

Provide 750mm x 600mm trench fill foundations, concrete mix to conform to BS EN 206 and BS 8500-2. All foundations to be a minimum of 1000mm below ground level, exact depth to be agreed on site with Building Control Officer to suit site conditions. All constructed in accordance with 2010 Building Regulations A1/2 and BS 8004 Code of Practice for Foundations. Ensure foundations are constructed below invert level of any adjacent drains. Base of foundations supporting internal walls to be min 600mm below ground level. Sulphate resistant cement to be used if required. Please note that should any adverse soil conditions or difference in soil type be found or any major tree roots in excavations, the Building Control Officer is to be contacted and the advice of a structural engineer should be sought.

### PIPES PASSING THROUGH TRENCH FOUNDATIONS

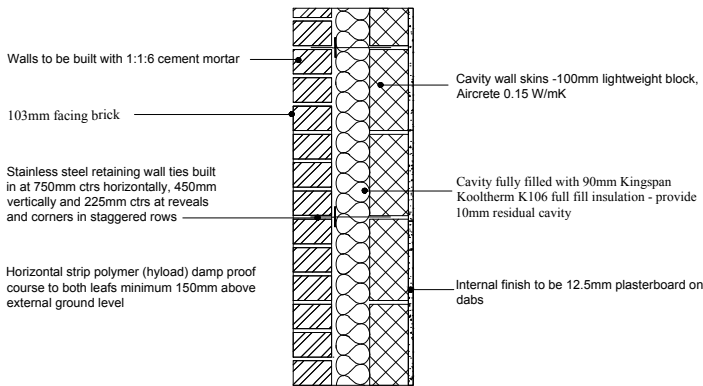
The load-bearing capability of foundations must not be affected where services pass through. The pipe work should be sleeved and be provided with 'rocker pipes' at a distance of 150mm either side of the foundation concrete. The 'rocker pipes' should have flexible joints and be a maximum length of 600mm. Alternatively, Where new pipework passes through external walls the pipe work is to be provided with 'rocker pipes' at a distance of 150mm either side of the wall face. The 'rocker pipes' must have flexible joints and be a maximum length of 600mm.

### PIPES PASSING THROUGH WALLS

Walls above pipes passing through substructure walls to be supported on suitable lintel on semi-engineering bricks. Pipe to be provided with a 50mm clearance all round, opening to be masked with granular backfill (pea shingle) around pipe. DPC to be provided as required by BCO. Alternatively, Where new pipework passes through external walls the pipe work is to be provided with 'rocker pipes' at a distance of 150mm either side of the wall face. The 'rocker pipes' must have flexible joints and be a maximum length of 600mm.

## DETAIL 2 FULL FILL CAVITY WALL (GROUND FLOOR)

U-value 0.17 W/m<sup>2</sup>K



### FULL FILL CAVITY WALL

To achieve minimum U Value of 0.18 W/m<sup>2</sup>K (actual U Value achieved 0.17 W/m<sup>2</sup>K). New cavity wall to comprise of 103mm suitable facing brick. Full fill the cavity with 90mm Kingspan Kooltherm K106 full fill insulation as manufacturer's details, leaving 10mm cavity between the insulation and outer skin. Inner leaf constructed using 100mm lightweight block, 0.15 W/m<sup>2</sup>K, e.g. Celcon solar, Thermalite turbo. Internal finish to be 12.5mm plasterboard on dabs. Walls to be built with 1:1.6 cement mortar. Vertical joints in the board must be staggered and all joints tightly butted. All details including corner and junction to be as relevant BBA certificate. Location to be assessed for suitability of insulation boards.

### DPC

Provide horizontal strip polymer (hyload) damp proof course to both internal and external skins minimum 150mm above external ground level. New DPC to be made continuous with existing DPC's and with floor DPM. Vertical DPC to be installed at all reveals where cavity is closed.

### WALL TIES

All walls constructed using stainless steel vertical twist type retaining wall ties built in at 750mm ctrs horizontally, 450mm vertically and 225mm ctrs at reveals and corners in staggered rows. Wall ties to be suitable for cavity width and in accordance with BS EN 845

### CAVITIES

Provide cavity trays over openings. All cavities to be closed at eaves and around openings using Thermabate or similar non combustible insulated cavity closers. Provide vertical DPC's around openings and abutments. All cavity trays must have 150mm upstands and suitable cavity weep holes (min 2) at max 900mm centres.

### EXISTING TO NEW WALL

Cavities in new wall to be made continuous with existing where possible to ensure continuous weather break. If a continuous cavity cannot be achieved, where new walls abuts the existing walls provide a movement joint with vertical DPC. All tied into existing construction with suitable proprietary stainless steel profiles.

### CAVITY BARRIERS

30 minute fire resistant cavity barriers to be provided around openings, at tops of walls, gable end walls, vertically at junctions with separating walls and horizontally at separating floors. Cavity trays to be provided over barrier where required. Trays and cavity barriers to be installed according to manufacturer's details.

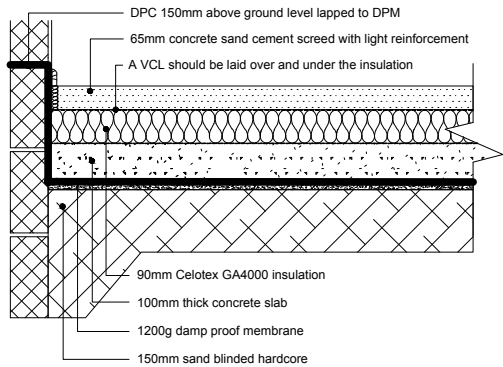
### MOVEMENT JOINTS

Movement joints to be provided at the following maximum spacing:

Clay brickwork - 12m.  
Calcium silicate brick - 7.5-9m.  
Lightweight concrete block - density not exceeding 1,500kg/m<sup>3</sup> - 6m.  
Dense concrete block - density exceeding 1,500kg/m<sup>3</sup> - 7.5-9m.  
Any masonry in a parapet wall (length to height ratio greater than 3:1) - half the above spacings and 1.5m from corners.  
Movement joint widths for clay bricks to be not less than 1.3mm/m i.e. 12m = 16mm and for other masonry not less than 10mm.  
Additional movement joints may be required where the aspect ratio of the wall (length :height) is more than 3:1.  
Considerations to be given to BS EN 1996-1-2:2005 Eurocode 6. Design of masonry structure.

## DETAIL 3 SOLID GROUND FLOOR

U-value 0.18 W/m<sup>2</sup>K  
P/A Ratio 0.5

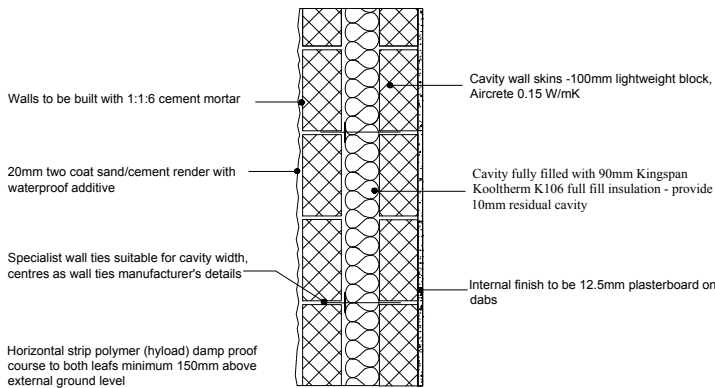


### SOLID FLOOR INSULATION OVER SLAB

To meet min U value required of 0.18 W/m<sup>2</sup>K  
P/A ratio 0.5  
Solid ground floor to consist of 150mm consolidated well-rammed hardcore. Blinded with 50mm sand blinding. Provide 100mm ST2 or Gen2 ground bearing slab concrete mix to conform to BS 8500-2 over a 1200 gauge polythene DPM. DPM to be lapped in with DPC in walls. Floor to be insulated over slab and DPM with min 90mm thick Celotex GA4000 insulation. 25mm insulation to continue around floor perimeters to avoid thermal bridging. A VCL should be laid over the insulation boards and turned up 100mm at room perimeters behind the skirting, all joints to be lapped 150mm and sealed. Finish with 65mm sand/cement finishing screed with light mesh reinforcement. Where drain runs pass under new floor, provide A142 mesh 1.0m wide and min 50mm concrete cover over length of drain. Where existing suspended timber floor air bricks are covered by new extension, ensure cross-ventilation is maintained by connecting to 100mm dia UPVC pipes with 100mm concrete cover laid under the extension. Pipes to terminate at new 65mm x 215mm air bricks with cavity tray over.

## DETAIL 2A FULL FILL CAVITY WALL (FIRST FLOOR)

U-value 0.17 W/m<sup>2</sup>K



### FULL FILL CAVITY WALL

To achieve minimum U Value of 0.18 W/m<sup>2</sup>K (actual U Value achieved 0.17 W/m<sup>2</sup>K). 20mm two coat sand/cement render to comply to BS EN 13914-1 with waterproof additive on 100mm lightweight block, 0.15 W/m<sup>2</sup>K, e.g. Celcon solar, Toplite Standard. Full fill the cavity with 90mm Kingspan Kooltherm K106 full fill insulation as manufacturer's details, leaving 10mm cavity between the insulation and outer skin. Inner leaf to be 100mm lightweight, 0.15 W/m<sup>2</sup>K, e.g. Celcon solar, Toplite standard. Internal finish to be 12.5mm plasterboard on dabs. Walls to be built with 1:1.6 cement mortar. Vertical joints in the board must be staggered and all joints tightly butted. All details including corner and junction to be as relevant BBA certificate. Location to be assessed for suitability of insulation boards.



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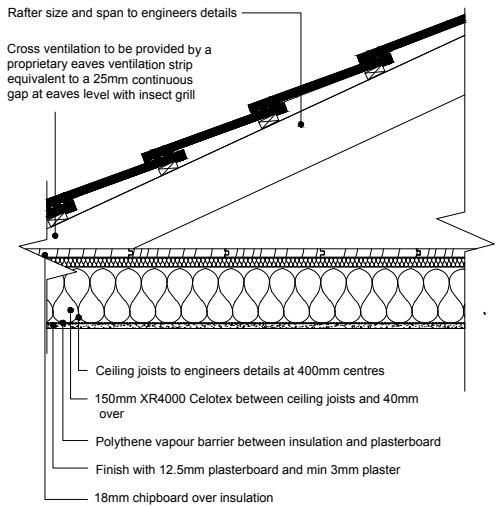
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DETAILS A

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DETAIL 4 UPGRADE OF PITCHED ROOF

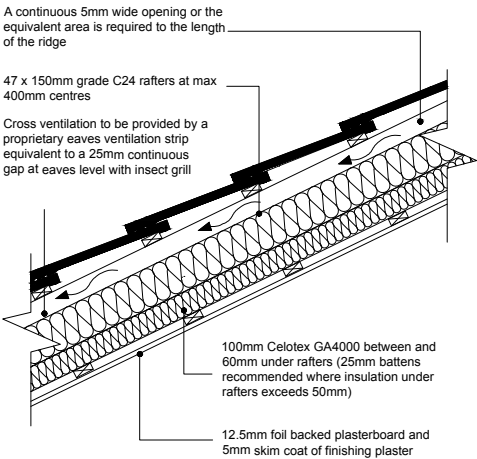
U-value 0.15 W/m²K



**INSULATION AT CEILING LEVEL**  
To achieve U value of 0.15 W/m²K  
Insulation at ceiling level to be 150mm XR4000 Celotex between ceiling joists with a further 40mm over joists. 18mm chipboard to be provided over insulation.  
Construct ceiling using sw joists at 400mm centres, finished internally with 12.5mm plasterboard and min 3mm thistle multi-finish plaster. Provide polythene vapour barrier between insulation and plasterboard. Provide opening at eaves level at least equal to continuous strip 25mm wide in two opposite sides to promote cross ventilation. Allow for all structure as designed by a Structural Engineer.  
Loft hatches should be suitable designed and installed to ensure optimum air tightness

DETAIL 7 UPGRADE OF PITCHED ROOF

U-value 0.15 W/m²K

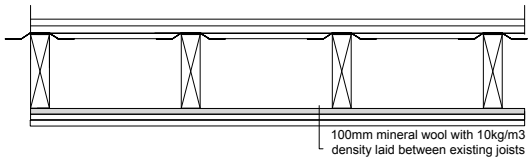


**UPGRADE OF PITCHED ROOF**  
(imposed load max 0.75 kN/m² - dead load max 0.75 kN/m²)  
Vented roof – pitch 22-45°  
To achieve U-value 0.15 W/m²K  
Existing roof structure to be assessed by a structural engineer and any alterations to be carried out in strict accordance with structural engineer's details and calculations which must be approved by building control before works commence on site. The existing roof condition must be checked and be free from defects as required by the Building Control Officer any defective coverings or felt to be replaced in accordance with manufacturer's details.  
Roof construction - 47 x 150mm Grade C24 rafters at max 400mm centres max span 3.47m. Insulation to be 100mm Celotex GA4000 between rafters and 60mm under rafters. Fix 12.5mm foil backed plasterboard (joints staggered) to the underside of all ceilings using galvanized plasterboard nails. Finish with 5mm skim coat of finishing plaster.  
(Cavity of 25mm provided by fixing battens between plasterboard and under rafter insulation recommended where insulation under rafters exceeds 50mm).  
Maintain a 50mm air gap above insulation to ventilate roof. Provide opening at eaves level at least equal to continuous strip 25mm wide and opening at ridge equal to continuous strip 5mm wide to promote ventilation or provide equivalent high and low level tile vents in accordance with manufacturer's details.

DETAIL 5 TIMBER SEPARATING FLOOR (between ground and first floor)

Fire Integrity (mins) 60  
Fire Insulation (mins) 60  
Sound Insulation (Airborne)  $R_w$  (dB)63  
Sound Insulation (Airborne)  $R_w + C_{tr}$  (dB)51  
Sound Insulation (Impact)  $L_{nw}$  (dB)55

21mm T&G wood flooring on Gyproc Plank 19mm on Gypframe SIF Floor Channel on timber joists 45 x 195mm solid joists at 450mm centres. Gypframe RB1 Resilient Bars fixed at 450mm centres lined with an inner layer of Gyproc Plank 19mm and an outer layer of Gyproc FireLine MR 12.5mm with 100mm Isover Spacesaver Ready-Cut in the cavity.



**SOUND PROTECTION AND TESTING -**  
Separating floors s to achieve a performance standard of 43dB (minimum values for airborne sound insulation) and 64 dB to floors and stairs (maximum values for impact sound insulation) to demonstrate compliance with Approved Document E1.  
Pre completion sound testing to be carried out by a suitably qualified person with appropriate third party accreditation (either UKAS accreditation or be a member of the Association of Noise Consultants Registration Scheme). Test to be carried out once the dwelling is complete but before carpeting and a copy of the test results given to Building Control.  
If any elements were to fail the sound test, remedial works must be undertaken before retesting to the satisfaction of the Building Control Surveyor.  
Where flanking walls or floors are continuous across separating walls specialist advice is to be sought to ensure additional treatments are provided to control flanking transmission.

DETAIL 8

FIRE PROTECTION OF STEEL BEAM

25 x 25mm angle fixed using proprietary fixings at 600mm centres  
Board screwed to angles at 150mm centres with 35mm Screws

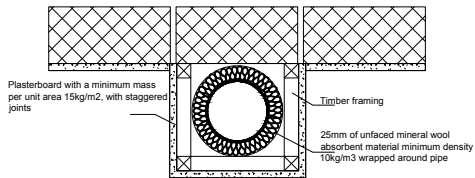


Steel beams to be encased in 2 layers of 12.5mm Gyproc FireLine board with staggered joints, Gyproc FireCase.

NOTE: 100mm board cut offs to be fitted behind butt joints and fixed with proprietary screws at 100mm centres

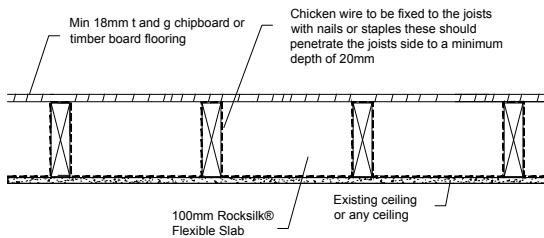
DETAIL 9

SOUND INSULATION OF INTERNAL SOIL STACK



DETAIL 6 INTERMEDIATE FLOOR WITHIN FLATS

ONE HOUR FLOOR



To achieve 60 minutes fire resistance at 400mm joist centres:

- The floor deck should be minimum 18mm thick tongued and grooved chipboard or timber boarding.
- The joists must be minimum 195mm deep and 47mm wide at 400mm centres using minimum C16 timber.
- 0.7mm chicken wire should be stapled to the sides of the joists at least 40mm above the ceiling level.
- Any ceiling finish can be used.

To achieve 60 minutes fire resistance at 600mm joist centres:

- The floor deck should be minimum 22mm thick tongued and grooved chipboard or timber boarding.
- The joists must be minimum 220mm deep and 45mm wide at 600mm centres using minimum C24 timber.
- 0.7mm chicken wire should be stapled to the sides of the joists at least 40mm above the ceiling level.
- Any ceiling finish can be used.



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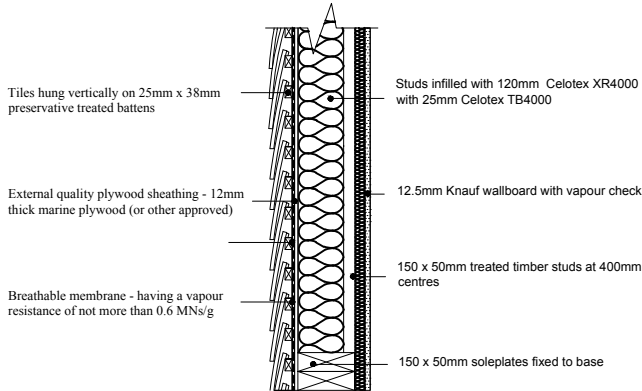
## DETAIL 10

### TIMBER FRAMED WALL

U-value 0.18 W/m²K

#### TIMBER FRAME CONSTRUCTION

To achieve minimum U Value of 0.18 W/m²K  
Structure to engineer's details and calculations. Tiles hung vertically on 25 x 38mm preservative treated battens (vertical counter battens to be provided to ensure vented and drained cavity if required) fixed to breathable membrane (having a vapour resistance of not more than 0.6 MNs/g) and 12mm thick W.B.P external quality plywood sheathing (or other approved). Ply fixed to treated timber frame studs constructed using: 150mm x 50mm head and sole plates and vertical studs (with noggins) at 400mm centres or to structural engineer's details and calculations. Insulation to be 120mm Celotex XR4000 between studs with 25mm Celotex TB4000 over. Provide vcl and 12.5mm plasterboard over internal face of insulation. Finish with 3mm skim coat of finishing plaster.  
All junctions to have water tight construction, seal all perimeter joints with tape internally and with silicon sealant externally. Dormer walls built off existing masonry walls to have galvanised mild steel straps placed at 900 centres. Dormer cheeks within 1m of the boundary to be lined externally with 12.5mm Supalux and 12.5mm Gyproc FireLine board internally to achieve 1/2 hour fire resistance from both sides.

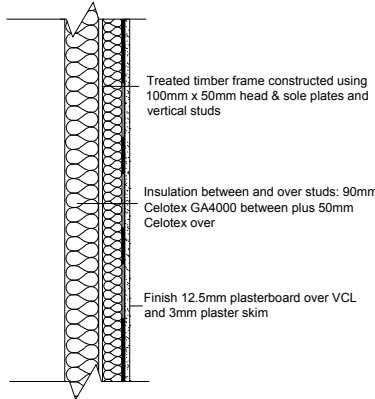


## DETAIL 12

### ASHLAR/DWARF WALLS

#### STUD ASHLAR/DWARF WALL

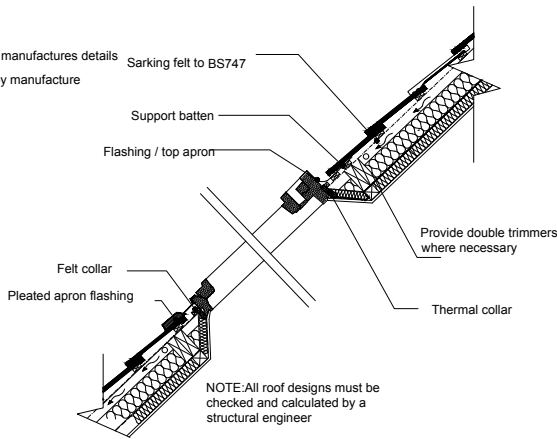
To achieve minimum U Value of 0.18 W/m²K  
Construct stud wall using 100mm x 50mm head and sole plates and vertical studs (with noggins) at 400mm centres or to structural engineer's details and calculations. Insulation to be 90mm Celotex GA4000 between studs with 50mm Celotex GA4000 over. Provide vcl and 12.5mm plasterboard over internal face of insulation. Finish with 3mm skim coat of finishing plaster  
All junctions to have water tight construction, seal all perimeter joints with tape internally and with silicon sealant externally.



## DETAIL 13

### ROOFLIGHT (SECTION)

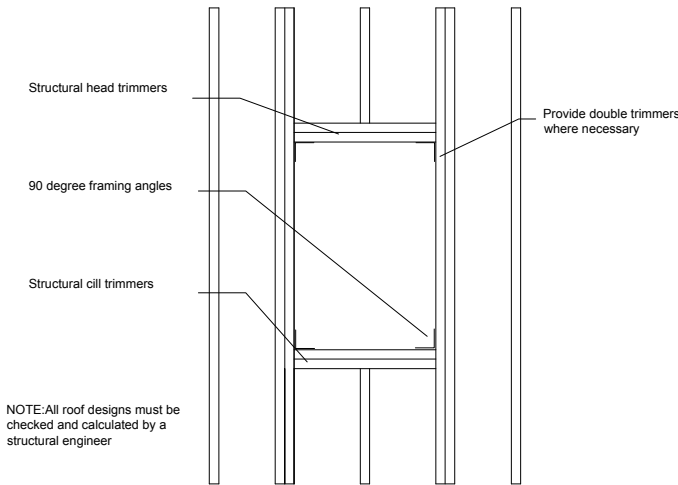
Rooflight installed in accordance with manufactures details  
Provide drainage gutter as required by manufacture



## DETAIL 14

### ROOFLIGHTS (STRUCTURE)

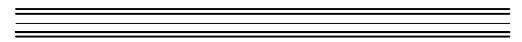
Rooflight installed in accordance with manufactures details



## DETAIL 11

### STUD WALL

50MM C STUDS, (0.55MM GAUGE AT 300MM CENTERS  
CLAD EACH SIDE WITH 1 LAYER OF 12.5MM 12.5  
BRITISH GYPSUM SOUNDBLOCK) . INSULATED WITH 1  
LAYER OF 25MM ISOVER APR 1200 ACOUSTIC ROLL  
WITHIN THE VOID. MIN 40 DB SOUND REDUCTION, MIN  
30MINS FIRE RESISTANCE, MAX HEIGHT 3.1M



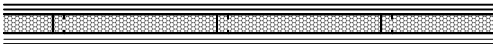
## DETAIL 12

### STUD SEPARATING WALL

ONE HOUR FIRE RATED COMPARTMENT WALLS

Two layers of Gyproc FIRELINE 15mm fixed to outside faces of two Gypframe 60 l 50 'T' Stud frameworks with studs at 600mm centres. 100mm Isover Acoustic Partition Roll (APR 1200) in the cavity. For heights up to 3300mm.  
TO ACHIEVE 60 MIN FR, 43 DB SOUND REDUCTION (MIN 43 DB +CTR).

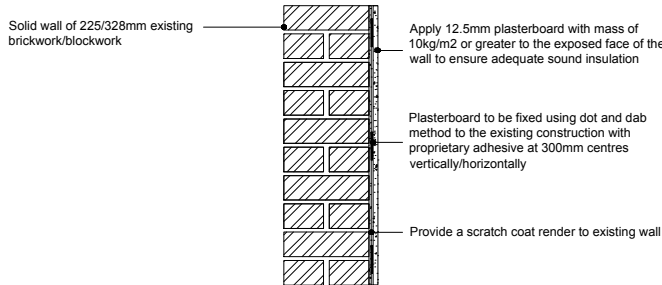
JUNCTIONS WITH EXTERNAL OR LOAD BEARING WALLS  
Flanking transmission to be controlled along adjoining walls by lining all adjoining masonry walls with either an independent layer of plasterboard and mineral wool or a laminate of plasterboard and mineral wool where necessary.




## DETAIL 15

### UPGRADING SOLID PARTY WALL

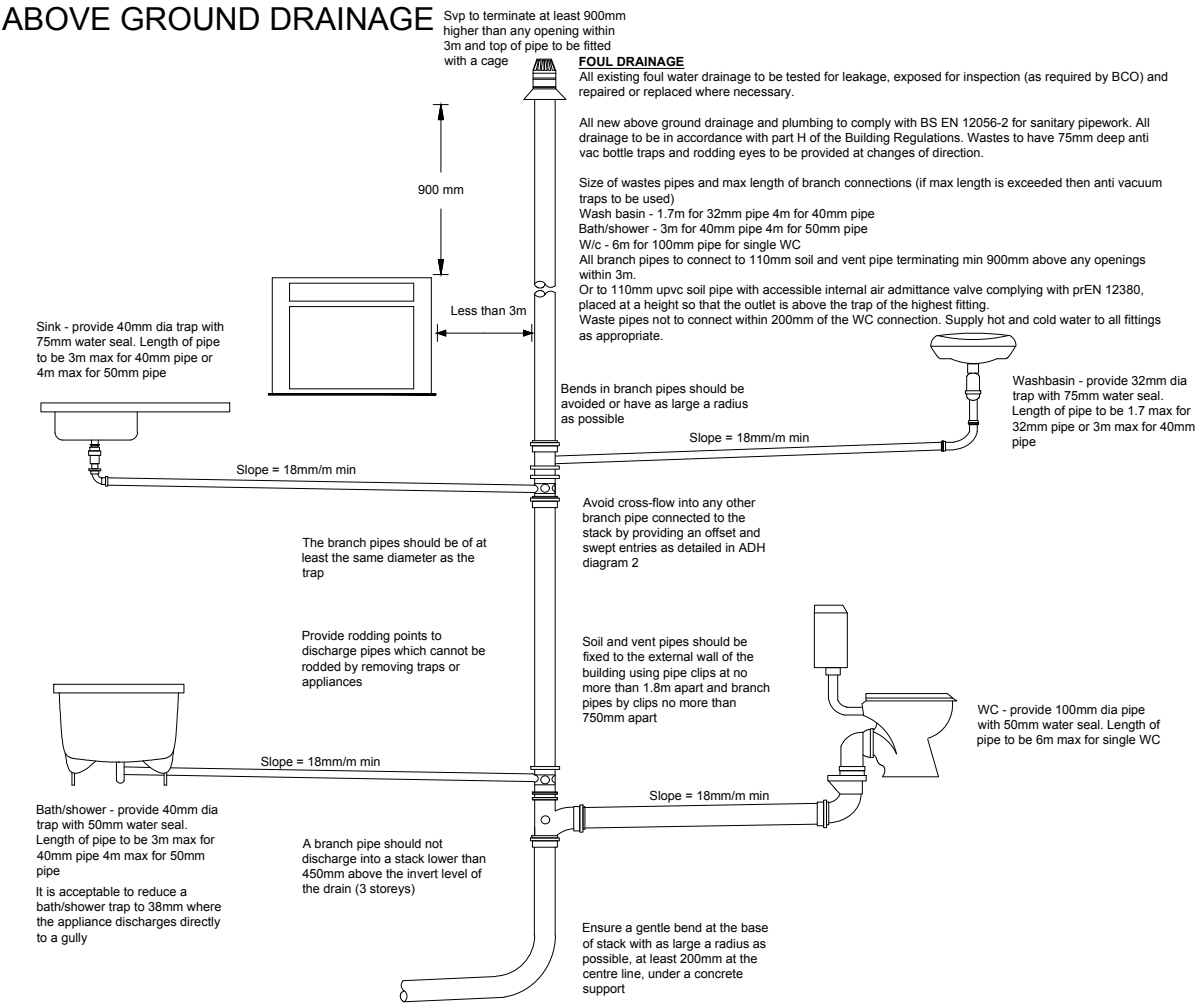
#### Warm adjoining space



			
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DETAIL 16 DRAINAGE

ABOVE GROUND DRAINAGE



PUBLIC SEWER REQUIREMENTS

Special measures may be required for the following:

- Soils easily eroded by ground water leaking into the drain or sewer, e.g., silty sands, saturated silts and peat.
  - A rising main (except those used for the building only).
  - Any sewer or drain constructed from brick or masonry.
  - Drains or sewers in poor condition.
  - Sites prone to subsidence
- (Advice to be sought from the Sewerage undertaker).

Other provisions that apply to Sewers:

- Any repairs or replacements of a sewer public or drain is to be carried out by the sewerage undertaker.
- Access points to sewers to be in places where they are accessible and apparent for use in an emergency.
- All drains or sewers running under a building to be provided with a minimum of 100mm of granular fill around the pipe.
- the crown of a pipe is within 300mm of the underside of a floor slab special protection to be provided.
- Where a pipe runs less than 2m below a building the foundation is to be extended so that the pipe passes through the wall
- Where the pipe is more than 2m deep to the invert and passes beneath the foundation, the foundation is to be designed as a lintel, spanning over the drain, the lintel should span 1.5m either side of the pipe.
- A drain trench is not to be excavated lower than the foundations of any building nearby.

UNDERGROUND FOUL DRAINAGE

Underground drainage to consist of 100mm diameter UPVC proprietary pipe work to give a 1:40 fall. Surround pipes in 100mm pea shingle. Provide 600mm suitable cover (900mm under drives). Shallow pipes to be covered with 100mm reinforced concrete slab over compressible material. Provide rodding access at all changes of direction and junctions. All below ground drainage to comply with BS EN 1401-1.

INSPECTION CHAMBERS

Underground quality proprietary UPVC 450mm diameter inspection chambers to be provided at all changes of level, direction, connections and every 45m in straight runs. Inspection chambers to have bolt down double sealed covers in buildings and be adequate for vehicle loads in driveways.

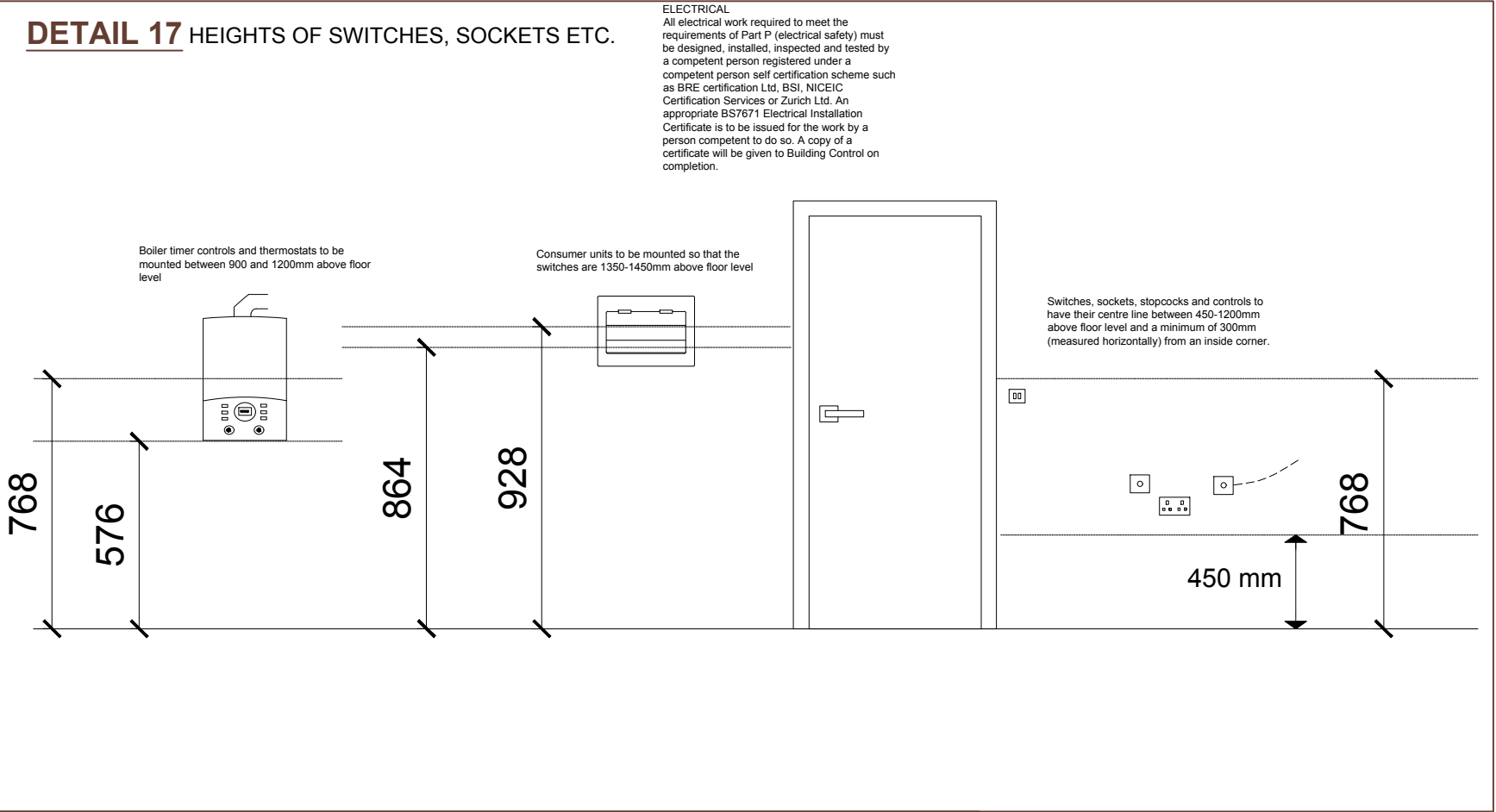
PIPEWORK THROUGH WALLS

Where new pipework passes through external walls the pipe work is to be provided with 'rocker pipes' at a distance of 150mm either side of the wall face. The 'rocker pipes' must have flexible joints and be a maximum length of 600mm.l.  
Alternatively provide 75mm deep pre-cast concrete plank lintels over drain to form opening in wall to give 50mm space all round pipe; mask opening both sides with rigid sheet material and compressible sealant to prevent entry of fill or vermin.

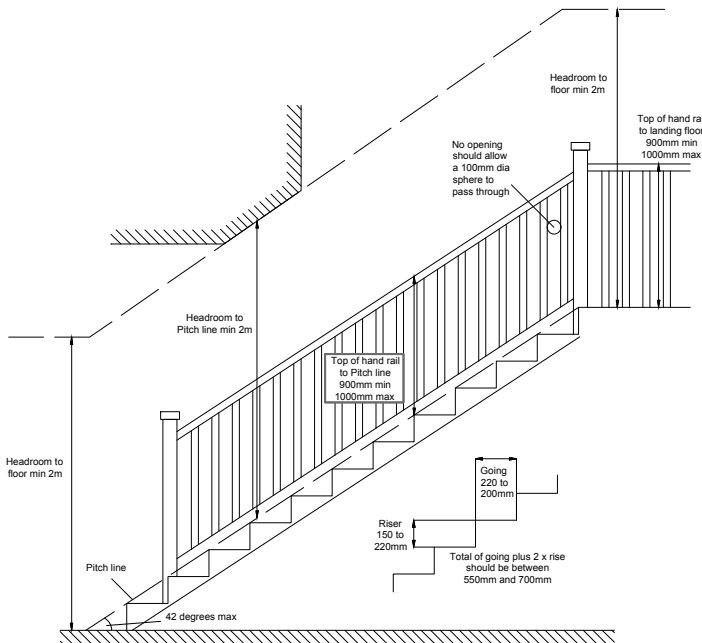
H4 BUILDING OVER OR NEAR PUBLIC SEWERS

The developer is to consult the Local Sewers Undertaker when constructing, extending or underpinning over a sewer or within 3m of the centreline of sewer shown on the sewerage undertakers sewer records and when the following applies:  
- The building or extension is to be constructed over a manhole or inspection chamber or other access fitting on a sewer.  
- The length of the drain or sewer under the proposed building or extension will exceed 6m.  
- The Building or extension is to be constructed over or within 3m of any drain or sewer more than 3m deep or greater than 225m in diameter.

DETAIL 17 HEIGHTS OF SWITCHES, SOCKETS ETC.



DETAIL 18 STAIRS



STAIRS

Dimensions to be checked and measured on site prior to fabrication of stairs. Timber stairs to comply with BS585 and with Part K of the Building Regulations. Max rise 220mm, min going 220mm. Two risers plus one going should be between 550 and 700mm. Tapered treads to have going in centre of tread at least the same as the going on the straight. Min 50mm going of tapered treads measured at narrow end. Pitch not to exceed 42 degrees. The width and length of every landing should be at least as great as the smallest width of the flight. Doors which swing across a landing at the bottom of a flight should leave a clear space of at least 400mm across the full width of the flight. Min 2.0m headroom measured vertically above pitch line of stairs and landings. Handrail on staircase to be 900mm above the pitchline, handrail to be at least one side if stairs are less than 1m wide and on both sides if they are wider. Ensure a clear width between handrails of minimum 600mm. Balustrading designed to be unclimbable and should contain no space through which a 100mm sphere could pass. Allow for all structure as designed by a Structural Engineer.



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BUILDING REGULATIONS NOTES																																																											
<p>PARTY WALL ACT</p> <p>The owner should they need to do so under the requirements of the Party Wall Act 1996 has a duty to serve a Party Structure Notice on any adjoining owner if the building work involves works on or to an existing Party Wall including:</p> <ul style="list-style-type: none"><li>• Support of beam</li><li>• Insertion of DPC through wall</li><li>• Raising of wall or cutting of projections</li><li>• Demolition and rebuilding</li><li>• Underpinning</li><li>• Insertion of lead flashings</li><li>• Excavations within 3 metres of an existing structure where the new foundations will go deeper than adjoining foundations, or within 6 metres of an existing structure where the new foundations are within a 45 degree line of the adjoining foundations.</li></ul> <p>A Party wall agreement is to be in place prior to start of works on site.</p> <p>THERMAL BRIDGING</p> <p>Care shall be taken to limit the occurrence of thermal bridging in the insulation layers caused by gaps within the thermal element, (i.e. around windows and door openings).</p> <p>MATERIALS AND WORKMANSHIP</p> <p>All works are to be carried out in a workmanlike manner. All materials and workmanship must comply with Regulation 7 of the Building Regulations, all relevant British Standards, European Standards, Agreement Certificates, Product Certification of Schemes (Kite Marks) etc. Products conforming to a European technical standard or harmonised European product should have a CE marking.</p> <p>EXISTING STRUCTURE</p> <p>Existing structure including foundations, floor, beams, walls, roof and lintels are to be exposed and checked for adequacy prior to commencement of work and as required by the Building Control Officer.</p> <p>BACKGROUND VENTILATION</p> <p>Controllable background ventilation at least 1700mm above floor level to be provided to habitable rooms and kitchens at a rate of min 10,000mm², and to wet rooms at a rate of min 5000mm², Background ventilators to be tested to BS EN 13141-1 Background ventilator equivalent area and operation to be measured and recorded.</p> <p>CDM REGULATIONS 2015</p> <p>The client must abide by the Construction Design and Management Regulations 2015. The client must appoint a contractor, if more than one contractor is to be involved, the client will need to appoint (in writing) a principal designer (to plan, manage and coordinate the planning and design work) and a principal contractor (to plan, manage and coordinate the construction and ensure there are arrangements in place for managing and organising the project).</p> <p>Domestic clients</p> <p>The domestic client is to appoint a principal designer and a principal contractor when there is more than one contractor, if not your duties will automatically transferred to the contractor or principal contractor.</p> <p>The designer can take on the duties, provided there is a written agreement between you and the designer to do so.</p> <p>The Health and Safety Executive is to be notified as soon as possible before construction work starts if the works:</p> <p>(a) Last longer than 30 working days and has more than 20 workers working simultaneously at any point in the project.</p> <p>Or.</p> <p>(b) Exceeds 500 person days.</p> <p>PARTY WALL ACT</p> <p>The owner, should they need to do so under the requirements of the Party Wall Act 1996, has a duty to serve a Party Structure Notice on any adjoining owner if building work on, or to near an existing Party Wall involves any of the following:</p> <ul style="list-style-type: none"><li>• Support of beam</li><li>• Insertion of DPC through wall</li><li>• Raising a wall or cutting off projections</li><li>• Demolition and rebuilding</li><li>• Underpinning</li><li>• Insertion of lead flashings</li><li>• Excavations within 3 metres of an existing structure where the new foundations will go deeper than adjoining foundations, or within 6 metres of an existing structure where the new foundations are within a 45 degree line of the adjoining foundations.</li></ul> <p>A Party Wall Agreement is to be in place prior to start of works on site.</p> <p>THERMAL BRIDGING</p> <p>Care shall be taken to limit the occurrence of thermal bridging in the insulation layers caused by gaps within the thermal element, (i.e. around windows and door openings). Reasonable provision shall also be made to ensure the extension is constructed to minimise unwanted air leakage through the new building fabric.</p> <p>MATERIALS AND WORKMANSHIP</p> <p>All works are to be carried out in a workmanlike manner. All materials and workmanship must comply with Regulation 7 of the Building Regulations, all relevant British Standards, European Standards, Agreement Certificates, Product Certification of Schemes (Kite Marks) etc. Products conforming to a European technical standard or harmonised European product should have a CE marking.</p> <p>SITE PREPARATION</p> <p>Ground to be prepared for new works by removing all unsuitable material, vegetable matter and tree or shrub roots to a suitable depth to prevent future growth. Seal up, cap off, disconnect and remove existing redundant services as necessary. Reasonable precautions must also be taken to avoid danger to health and safety caused by contaminants and ground gases e.g. landfill gases, radon, vapours etc. on or in the ground covered, or to be covered by the building.</p>				<p>EXISTING STRUCTURE</p> <p>Existing structure including foundations, beams, walls and lintels carrying new and altered loads are to be exposed and checked for adequacy prior to commencement of work and as required by the Building Control Officer.</p> <p>ELECTRICAL</p> <p>All electrical work required to meet the requirements of Part P (electrical safety) must be designed, installed, inspected and tested by a competent person registered under a competent person self certification scheme such as BRE certification Ltd, BSI, NICEIC Certification Services or Zurich Ltd. An appropriate BS7671 Electrical Installation Certificate is to be issued for the work by a person competent to do so. A copy of a certificate will be given to Building Control on completion.</p> <p>INTERNAL LIGHTING</p> <p>Install low energy light fittings that only take lamps having a luminous efficiency better than 80 lumens per circuit watt. All fixed to have lighting capacity (lm) 185 x total floor area, to comply with Part L of the current Building Regulations and the Domestic Building Services Compliance Guide.</p> <p>HEATING</p> <p>Extend all heating and hot water services from existing and provide new TRVs to radiators. Heating system to be designed, installed, tested and fully certified by a GAS SAFE registered specialist. All work to be in accordance with the Local Water Authorities bye laws, the Gas Safety (Installation and Use) Regulations 1998 and IEE Regulations.</p> <p>The energy performance of the new components to be assessed. The results should be recorded and given to the building owner.</p> <p>All accessible pipes to be insulated to the standards in Table 4.4 Approved Document L.</p> <p>ELECTRIC SPACE HEATING SYSTEMS</p> <p>Each room to be provided with thermostatic room controls capable of being used to separately to adapt the heating output in each room served by the heating appliance.</p> <p>Electrical heating system to be installed and commissioned by a member of one of the approved Competent Person schemes. A copy of the commissioning certificate to be given to building control and the owner on completion of the works.</p> <p>Any electric storage heaters to be provided with automatic control of input charge. The rate of heat release from the appliance to be adjustable, using an adjustable damper or other thermostatically controlled method.</p> <p>Any electric panel heaters to be provided with time and temperature control to allow separate control for either of the following:</p> <p>Each room or</p> <p>Each appliance, where this meets the guidance for thermostatic room controls in Approved Document L para 5.20</p> <p>Any electric warm air system to be provided with:</p> <p>A programmable room thermostat or a time switch and room thermostat and</p> <p>Separately controllable heating zones that meet the guidance for thermostatic room control in Approved Document L para 5.20 to 5.22.</p> <p>NEW GAS BOILER</p> <p>Heating and hot water will be supplied via a wall mounted condensing vertical balanced flue pressurised boiler with a minimum efficiency of 91% (as defined in ErP(1))</p> <p>The energy performance of the new components to be assessed. The results should be recorded and given to the building owner.</p> <p>All accessible pipes to be insulated to the standards in Table 4.4 Approved Document L.</p> <p>All parts of the system including pipework and emitters to be sized to allow the space heating system to operate effectively and in a manner that meets the heating needs of the dwelling, at a maximum flow temperature of 55°C or lower.</p> <p>No combustible materials within 50mm of the flue. Rooms to be fitted with thermostatic radiator valves and all necessary zone controls and boiler control interlocks. The system will be installed, commissioned and tested by a GAS SAFE Registered Specialist and a certificate issued that the installation complies with the requirements of PART L. All work to be in accordance with the Local Water Authorities bye laws, the Gas Safety (Installation and Use) Regulations 1998 and IEE Regulations.</p> <p>Gas-fired combination boilers installed in existing dwellings, to have at least one of the following</p> <p>energy efficiency measures, appropriate to the system:</p> <p>a. Flue gas heat recovery.</p> <p>b. Weather compensation.</p> <p>c. Load compensation.</p> <p>d. Smart thermostat with automation and optimisation.</p> <p>any window or door openings to be in accordance with diagram 11.5 in Part B Volume 1 (small unprotected areas).</p> <p>ACCEPTABLE UNPROTECTED AREAS</p> <p>Unprotected areas more than 1m from the boundary</p> <p>The unprotected area should not exceed the following:</p> <table><tr><td>Minimal distance from the boundary</td><td>maximum unprotected area (m2)</td></tr><tr><td>1</td><td>5.6</td></tr><tr><td>2</td><td>12</td></tr><tr><td>3</td><td>18</td></tr><tr><td>4</td><td>24</td></tr><tr><td>5</td><td>30</td></tr><tr><td>6</td><td>No limit</td></tr></table> <p>SAFETY GLAZING</p> <p>All glazing in critical locations to be toughened or laminated safety glass to BS 6206, BS EN 14179 or BS EN ISO 12543-1 and Part K (Part N in Wales) of the current Building Regulations, i.e. within 1500mm above floor level in doors and side panels within 300mm of door opening and within 800mm above floor level in windows.</p>				Minimal distance from the boundary	maximum unprotected area (m2)	1	5.6	2	12	3	18	4	24	5	30	6	No limit	<p>NEW AND REPLACEMENT WINDOWS</p> <p>New and replacement windows to be double glazed with 16-20mm argon gap and soft coat low-E glass. Window Energy Rating to be Band B or better and to achieve U-value of 1.4 W/m²K. The door and window openings should be limited to 25% of the extension floor area plus the area of any existing openings covered by the extension.</p> <p>Insulated plasterboard to be used in reveals to abut jambs and to be considered within reveal soffits. Fully insulated and continuous cavity closers to be used around reveals.</p> <p>Windows and door frames to be taped to surrounding openings using air sealing tape.</p> <p>Windows to be fitted with trickle vents to provide adequate background ventilation in accordance with Approved Document F.</p> <p>NEW AND REPLACEMENT DOORS</p> <p>New and replacement doors to achieve a U-Value of 1.4W/m²K. Glazed areas to be double glazed with 16-20mm argon gap and soft low-E glass. Glass to be toughened or laminated safety glass to BS 6206, BS EN 14179 or BS EN ISO 12543-1 and Part K (Part N in Wales) of the current Building Regulations.</p> <p>Insulated plasterboard to be used in reveals to abut jambs and to be considered within reveal soffits. Fully insulated and continuous cavity closers to be used around reveals.</p> <p>Windows and door frames to be taped to surrounding openings using air sealing tape.</p> <p>PURGE VENTILATION</p> <p>Minimum total area of opening in accordance with Table 1.4 Approved Document F1.</p> <p>Hinged or pivot windows with an opening angle of 15 to 30 degrees to have an openable area in excess 1/10 of the floor area of the room.</p> <p>Sash windows, external doors or hinged pivot windows with an opening angle of equal to or greater than 30 degrees to have an openable area in excess of 1/20 of the floor area of the room.</p> <p>Purge ventilation should be capable of extracting at least 4 air changes per hour per room directly to the outside.</p> <p>Internal doors should be provided with a 10mm gap below the door to aid air circulation.</p> <p>EXTRACT FOR SHOWER ROOM</p> <p>Provide mechanical extract ventilation to shower room ducted to external air capable of extracting at a rate of not less than 15 litres per second. Vent to be connected to light switch and to have 15 minute over run if no window in the room.</p> <p>Internal doors should be provided with a 10mm gap below the door to aid air circulation. Ventilation provision in accordance with the Domestic Ventilation Compliance Guide. Intermittent extract fans to BS EN 13141-4. All fixed mechanical ventilation systems, where they can be tested and adjusted, shall be commissioned and a commissioning notice given to the Building Control Body.</p> <p>EXTRACT TO KITCHEN</p> <p>Kitchen to have mechanical ventilation with an extract rating of 60l/sec or 30l/sec if adjacent to hob to external air, sealed to prevent entry of moisture. Internal doors should be provided with a 10mm gap below the door to aid air circulation.</p> <p>Ventilation provision in accordance with the Domestic Ventilation Compliance Guide. Intermittent extract fans to BS EN 13141-4. Cooker hoods to BS EN 13141-3. All fixed mechanical ventilation systems, where they can be tested and adjusted, shall be commissioned and a commissioning notice given to the Building Control Body.</p> <p>VENTILATION OF TIMBER SUSPENDED FLOOR</p> <p>Provide cross-ventilation under floor to outside air by ventilators in at least 2 opposite external walls of the building. Ventilation openings having an opening area of 1500mm² per metre run of perimeter wall or 500mm² per square metre of floor area whichever gives the greater opening area. All sleeper walls or similar under floor obstructions shall be of honeycombed construction or have similar provision for distribution of ventilation. The under floor space shall be free from debris. Ducts to be sealed using gas proof tap if they pass through a radon barrier.</p> <p>C2. CONDENSATION</p> <p>Walls, floors and roof of the building to be designed and constructed so that their structural and thermal performance will not be adversely affected by interstitial condensation, surface condensation or mould growth. Account to be taken of the building's form and orientation in relation to topography, prevailing winds, sunlight and over-shadowing, and the rate at which humidity is generated.</p> <p>Materials with the highest vapour resistance should be located on the warm side of a thermal element. VCLs to be provided where necessary.</p> <p>The junctions between elements are designed to Accredited Construction Details or guidance of BRE IP17/01] and BS 5250:2011+A1:2016 Code of practice for control of condensation in buildings to be followed.</p> <p>UNDERGROUND FOUL DRAINAGE</p> <p>Underground drainage to consist of 100mm diameter UPVC proprietary pipe work to give a 1:40 fall. Surround pipes in 100mm pea shingle. Provide 600mm suitable cover (900mm under drives). Shallow pipes to be covered with 100mm reinforced concrete slab over compressible material. Provide rodding access at all changes of direction and junctions. All below ground drainage to comply with BS EN 1401-1.</p> <p>INSPECTION CHAMBERS</p> <p>Underground quality proprietary UPVC 450mm diameter inspection chambers to be provided at all changes of level, direction, connections and every 45m in straight runs. Inspection chambers to have bolt down double sealed covers in buildings and be adequate for vehicle loads in driveways.</p> <p>ABOVE GROUND DRAINAGE</p> <p>All new above ground drainage and plumbing to comply with BS EN 12056-2 for sanitary pipework. All drainage to be in accordance with Part H of the Building Regulations. Wastes to have 75mm deep anti vac bottle traps and rodding eyes to be provided at changes of direction.</p> <p>Size of wastes pipes and max length of branch connections (if max length is exceeded then anti vacuum traps to be used)</p> <p>Wash basin - 1.7m for 32mm pipe 3m for 40mm pipe</p>				<p>Bath/shower - 3m for 40mm pipe 4m for 50mm pipe</p> <p>W/c - 6m for 100mm pipe for single WC</p> <p>All branch pipes to connect to 110mm soil and vent pipe terminating min 900mm above any openings within 3m.</p> <p>Or to 110mm upvc soil pipe with accessible internal air admittance valve complying with BS EN 12380, placed at a height so that the outlet is above the trap of the highest fitting.</p> <p>Waste pipes not to connect on to SVP within 200mm of the WC connection.</p> <p>Supply hot and cold water to all fittings as appropriate.</p> <p>SOIL AND VENT PIPE</p> <p>Svp to be extended up in 110mm dia UPVC and to terminate min 900mm above any openings within 3m. Provide a long radius bend at foot of SVP.</p> <p>AUTOMATIC AIR VALVE</p> <p>Ground floor fittings from WC to be connected to new 110mm UPVC soil pipe with accessible internal air admittance valve complying with BS EN 12380, placed at a height so that the outlet is above the trap of the highest fitting and connected to underground quality drainage encased with pea gravel to a depth of 150mm.</p> <p>WATER EFFICIENCY</p> <p>The estimated water consumption not to exceed 125 litres per person per day in accordance with Approved Document G2. Water Efficiency to be calculated using the 'Water Efficiency Calculator for New Dwellings' and results submitted to building control before works commence on site.</p> <p>Water calculation to be in compliance with Code for Sustainable Home Level 3/4 as stipulated by the local Planning Authority. Example calculation below;</p> <p>WC 5/3 (dual flush)</p> <p>Taps (excluding kitchen taps) 4</p> <p>Baths 180</p> <p>Shower 8</p> <p>Kitchen sink taps 6</p> <p>Washing machine 8.17 (not supplied)</p> <p>Dishwasher 1.25 (not supplied)</p> <p>Water recycling 0 (not supplied)</p> <p>Predicted per capita consumption (Code) 103.28</p> <p>COLD WATER SUPPLY</p> <p>There must be a suitable installation for the provision of a wholesome water supply in accordance with Approved Document G. Cold water supply to be provided to washbasins, bidets, baths, WCs, showers, any place when drinking water is drawn off and to any sink provided in areas where food is prepared.</p> <p>Supply of cold water to comply with section 67 of the Water Industry act 1991 and the Water Supply Regulations 2000.</p> <p>HOT WATER SUPPLY</p> <p>All bathrooms, washbasins, bidet, baths and showers to be provided with adequate hot and cold water supply in accordance with Approved Document G3. A washbasin with hot and cold water supply to be provided in or adjacent to all rooms containing a WC. A sink with hot and cold water also to be provided to any area where food is being prepared.</p> <p>CONTROL OF WATER TEMPERATURE</p> <p>The installation of the hot water supply to comply with Approved Document G3. All baths and showers are to be fitted with an in-line thermostatic mixing valve to ensure that the temperature of the water delivered to the bath is limited to 48°C.</p> <p>HOT WATER STORAGE SYSTEMS</p> <p>Hot water storage systems should be designed and installed in accordance with BS 12897 2006. Hot water vessels, cisterns etc and must be adequately supported.</p> <p>Any hot water storage system including any cistern or other vessel shall incorporate precautions to ensure suitable pressure relief and that any discharge from safety devices is safely conveyed to where it is visible but will not cause harm to persons in or about the building. Precautions to be in place to prevent stored water exceeding 100°C. Hot water vessels to be fitted with a non self resetting energy cut out to instantly disconnect the power supply.</p> <p>Outlets from domestic hot water storage vessels to be fitted with an in-line valve to prevent water temperatures exceeding 60°C. All pipes carrying hot water to be insulated where they pass through unheated spaces. Hot water storage system to be provided with suitable warning labels. Relevant certificates for the heating system i.e. Benchmark certificate, and commissioning certificates for fixed building services are to be given to the building owner and a copy provided to Building Control on completion.</p> <p>ELECTRIC SPACE HEATING SYSTEMS</p> <p>Each room to be provided with thermostatic room controls capable of being used to separately to adapt the heating output in each room served by the heating appliance.</p> <p>Electrical heating system to be installed and commissioned by a member of one of the approved Competent Person Schemes. A copy of the commissioning certificate to be given to building control and the owner on completion of the works.</p> <p>Any electric storage heaters to be provided with automatic control of input charge. The rate of heat release from the appliance to be adjustable, using an adjustable damper or other thermostatically controlled method.</p> <p>Any electric panel heaters to be provided with time and temperature control to allow separate control for either of the following:</p> <p>Each room, or</p> <p>Each appliance, where this meets the guidance for thermostatic room controls in Approved Document L para 5.20</p> <p>Any electric warm air system to be provided with:</p> <p>A programmable room thermostat or a time switch and room thermostat, and</p> <p>Separately controllable heating zones that meet the guidance for thermostatic room control in Approved Document L para 5.20 to 5.22.</p>				<p>SYSTEM CONTROLS AND ZONING</p> <p>Domestic hot water circuits to have:</p> <ul style="list-style-type: none"><li>- time control that is independent of space heating circuits.</li><li>- electronic temperature control.</li></ul> <p>Each room or agreed zone should be provided with thermostatic room controls. Dwellings with a floor area of 150m2 or greater to have a minimum of two independently controlled heating circuits.</p> <p>LIMITING HEAT LOSSES AND GAINS</p> <p>In accordance with Table 4.4 Approved Document L</p> <p>Insulation to be provided to:</p> <ul style="list-style-type: none"><li>- Primary circulation pipes for domestic hot water.</li><li>- Primary circulation pipes for heating circuits where they pass outside the heated living space and voids to be insulated.</li><li>- Pipes connected to hot water storage vessels for at least 1m from the point at which they connect to the vessel.</li></ul> <p>Secondary circulation pipework.</p> <p>PROTECTION FROM FALLING AND ENTRAPMENT</p> <p>Window handles on windows that open outwards are not to be more than 650mm from the inside face of the wall when the window is at its maximum openable angle.</p> <ul style="list-style-type: none"><li>- Any guarding to be sized to prevent the passage of a 100mm sphere, to be 1.1m high from floor level and not to be easily climbable.</li><li>- Any louvered shutters, window railing and ventilation grilles to comply with the following:</li><li>- not allow the passage of a 100mm diameter sphere.</li><li>- All holes which allow the passage of an 8mm diameter rod should also allow the passage of a 25mm diameter rod. Such holes should not taper in a way that allows finger entrapment.</li><li>- All looped cords must be fitted with child safety devices.</li></ul> <p>PART Q - SECURITY</p> <p>Confirmation required that all doors and windows are to be installed in accordance with the advice stated in PAS24:2016 or alternatively comply with the requirements set out in Approved Document Q – Appendix B.</p> <p>Doors to be manufactured to a design that has been shown by test to meet the requirements of British Standard publication PAS24:2016 or designed and manufactured in accordance with Appendix B or Approved Document Q</p> <p>PART S – CHARGING OF ELECTRIC VEHICLES</p> <p>Electrical vehicle charge point to be provided to any associated car parking spaces. If the connection cost is greater than £3600 two formal quotes to be given to building control, as detailed in Approved Document S, in which case, cable routes for electrical vehicle charge points to be agreed.</p>																													
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